

# Loan Management 24.0

## User Guide

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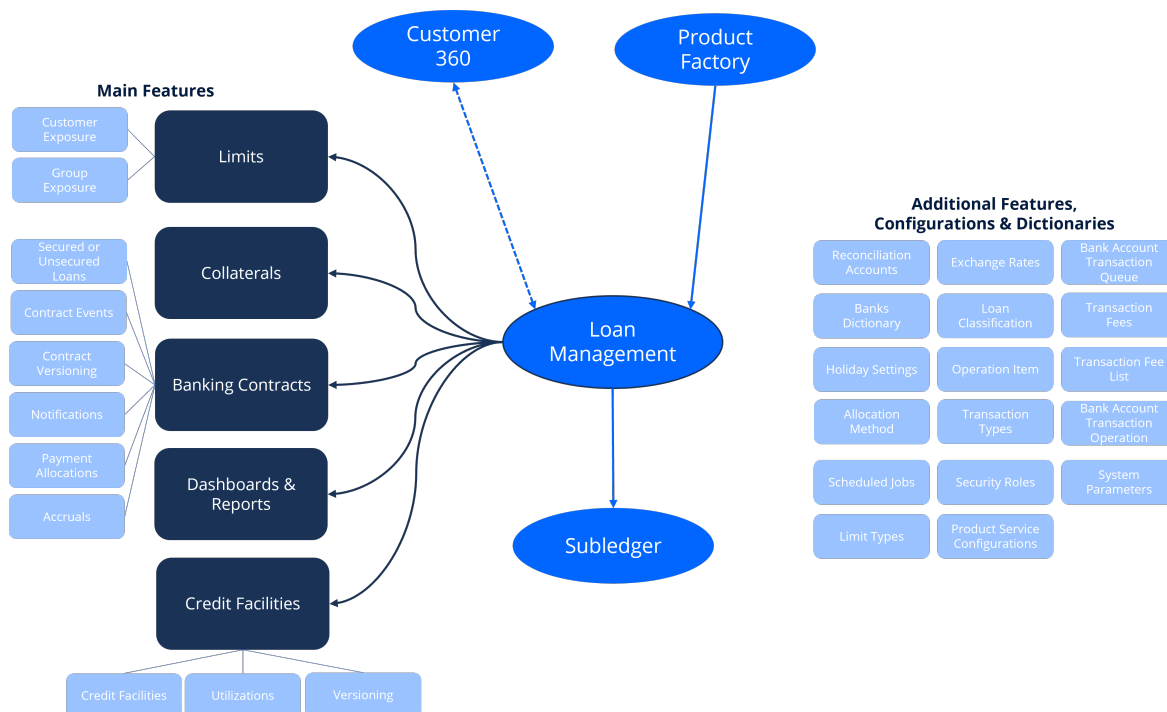
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# Overview

FintechOS **Loan Management** aims to help banks and/ or financial institutions with the management of records and processes during the life of the business relation with a customer, may it be on lending with underlying limits and collaterals, deposits, minimum current accounts capabilities, or credit facilities. Its automated processes scheduled to happen during close of day or start of day calculate cost elements and keep up the correct figures driven by the contracts inserted.

All the features in Loan Management are built using the capabilities of **FintechOS Studio**, and you can access its menus and dashboards when logged in **FintechOS Portal**.

The diagram below exhibits the main features of Loan Management, along with a series of configurations and dictionaries used to automate the complex banking processes performed by the system. Loan Management uses the banking products records defined within **Product Factory**, and the customer records managed by **Customer 360**. Loan Management records are further used by **Subledger** to generate ledger entries.





## Product Factory

This is a powerful automation processor accessible in the FintechOS Studio that builds the products to be used in a customer journey, configures the interest, commissions, and the life cycle of a product. Those products are later introduced into a customer journey or used in conjunction with Loan Management. For more information, see [Product Factory](#).

## Customer 360

[Customer 360](#) is the central hub for collecting, aggregating, and processing banking customers' data for customers representing legal entities or individuals.

## Subledger

Based on the transactions performed in Loan Management, Subledger logs, along with a company's financial transactions, details that enable the system to build ledger entries. For more information, see [Subledger](#).

# Configurations for Loan Management

Before starting to work with your Loan Management solution, there are a series of configurations that your implementation team should perform.

## IMPORTANT!

FintechOS offers you a [Utilities package](#) for banking solutions, which you can use for testing purposes on your pre-production environments. This package helps you test the FintechOS banking solutions during the implementation phase of your project, using sample data. As such, you'd benefit from its content if you are a developer, a tester, a digital consultant, or a partner who works on implementing one of the FintechOS banking solutions.

This page contains topics that explain how Loan Management is configured to work and topics that assist you in configuring your Loan Management system.

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#### NOTE

If you need to re-index your solution to have a starting point for maintenance scripts within your implementation project, you can run the `92.fix.Indexes.Performance.sql` script that comes with the Loan

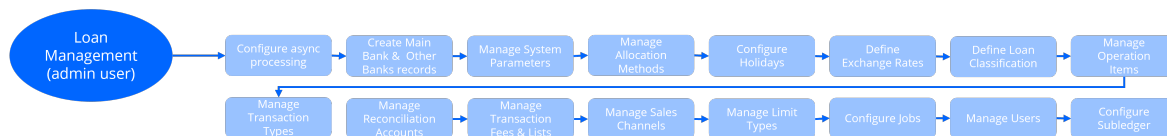
Management packages. Due to high performance impact, the script is marked not to run by default during installation, but you can check and start it manually at a later time.

## Getting Started with Loan Management

After performing the installation process, Loan Management needs a series of configurations to be put in place before being ready for production. For example, it needs records for the main bank that uses the system, reconciliation accounts to be used for transactions, exchange rates information, holidays to be declared, specific settings for the Loan Management system parameters that indicate how the system should handle different situations or perform specific calculations, and so on.

This page is a step-by-step guide about what you have to set up, with links to detailed instructional pages related to each specific step. Follow through these steps after installing Loan Management and before declaring it ready for production.

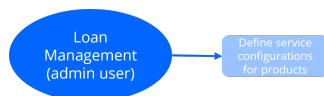
### Step 1. Configure Loan Management settings



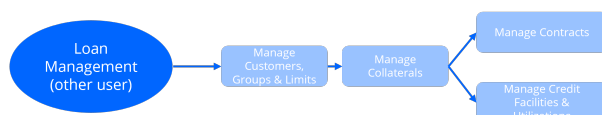
### Step 2. Create banking products



### Step 3. Set product service configurations



### Step 4. Use Loan Management features



## Step 1. Configure Loan Management settings

Follow these steps to configure the settings needed by Loan Management:

1. Log into **FintechOS Portal** using a **user with administrator rights**.  
The user credentials for an administrator user are received from your FintechOS contact person. Insert the user name and the password associated with it to log into the FintechOS Portal.
2. Configure the **external request processing** flows.  
To improve the platform's overall performance through [parallel processing](#), Loan Management sends by default the requests generated for processing outside of the platform.
3. Define your **main bank**.  
You must [create a bank](#) record to be used by Loan Management as the main financial institution. Use the **Core Banking Operational > Bank** menu and make sure the record has the Main Bank checkbox selected.
4. Manage your **Loan Management system parameters**.  
The system parameters used by Loan Management determine the behavior of all the contracts, transactions, limits, and other parts that make up your Loan Management system. See [here](#) the list of system parameters used by Loan Management, along with their descriptions.
5. Manage **allocation methods**.  
Loan Management uses allocation methods to determine the order in which credit items are prioritized when repaying loans, credit accounts, etc. Read [here](#) how to create and manage allocation methods, using the **Allocation Method** menu.
6. Enter **holidays** for the desired countries.  
Public holidays for each country are used in the product definition for the calendar years over which your financial institution's current business is spread. Use the **Holiday** menu to create holiday records specific to your financial institution's needs, as described [here](#).
7. Define **exchange rate types** and enter **exchange rate** records.  
Exchange rates represent the value between the currencies of two countries on a given date. These rates are free-floating or fixed. Add exchange rate types using the **Exchange Rate Type** menu if you need to differentiate between exchange rates based on the currency market or



business area. Read more information about [creating exchange rate records](#) and [managing exchange rate types](#).

8. Define your **loan classification**.  
Financial institutions classify their existing loan contracts based upon the days past due (DPD), the number of days passed since repayment due date without fully repaying the due amount. Since the provisions have an impact on the financial results of the bank, this is again driven by [regulations](#) and may vary in time or depending on country or region. Create loan classification records as described [here](#).
9. Manage **operation items** specific for your business.  
Operation items are those items that relate to a bank's core business, such as all types of fees, commissions, principals, interests, advances, or penalty calculations. They can also be considered as balance types that add up to a certain deal or used in tracing what happened on a particular deal. Find [here](#) examples and information on creating operation item records.
10. Manage **transaction types**.  
Any transfer of funds between two bank accounts is recorded as a transaction. The transaction types are predefined for usage within Loan Management processes. Read [here](#) about different types of transactions used in Loan Management.
11. Define other **banks or financial institutions** with whom your main bank has business relations and **add external accounts**.  
[Create bank records](#) for the banking institutions with whom your main bank collaborates, using the **Loan Management Operational > Bank** menu. [Add external bank accounts](#) within these banks.
12. Define **reconciliation accounts** and default settings for the reconciliation accounts.  
Reconciliation is an accounting process that compares two sets of records to check that figures are correct and in agreement. Learn [here](#) how to manage the reconciliation accounts records. Read about [setting up](#) which reconciliation account for a specified currency should be used by Loan Management within a given period.

13. Manage **transaction fees and lists**.  
You can define different [fees](#) to be applied to bank account transactions. Using [fee lists](#), you can attach fees with specified values to each bank account transaction operation type. When a transaction operation type is selected on a bank account transaction, Loan Management identifies the fee list and fee values and applies them considering the current date of the transaction.
14. Define **sales channels** for your contracts.  
You can create contracts through different channels; such as the dedicated Loan Management menus in FintechOS Portal, API integration calls, or various customer journeys implemented within FintechOS accelerators. Manage the [sales channels](#) records, so that you can apply different pricing or to allow the selling a product on a specific channel.
15. Manage **limit types** for role-based limits.  
You can [create](#) new limit types that are based on roles associated to contract participants specific to your business, and use them throughout Loan Management with all the functionality of any other default limit type.
16. Make sure a **JobServer** is up and running.  
To perform the processes within Loan Management, a JobServer must be up and running. Manage server jobs as described [here](#). Learn [here](#) about Loan Management's scheduled jobs.
17. Create **users** and allocate them appropriate **security roles**.  
For appropriate access and rights within Loan Management, create users and allocate them appropriate [Loan Management security roles](#). The following pages contain information related to this topic: [Adding Users](#), [Editing Users](#), and [Security Roles](#).
18. Configure **Subledger**. The [Subledger](#) Add-On, installed over the Loan Management package, manages the accounting information needed for ledger reports and other financial statements. Access the [Configurations](#) page for information about the settings you need to perform.

## Step 2. Create banking products

Use **Product Factory** to create the banking products that your financial institution wants to offer to their customers via contracts. Loan Management integrates directly with Product Factory, thus all the banking products with **Active** status are automatically available for you to use in Loan Management, when you create contracts. Don't forget to define a service configuration for each product before using them to create contracts.

## Step 3. Set product service configurations

Before using a product to create contracts, indicate Loan Management a series of configurations regarding bank accounts to be used for that product, closure options, allowed transactions, and so on. Create such **product service configuration** records for each banking product you intend to use. Only products with approved product service configuration can be selected when creating contracts.

## Step 4. Use Loan Management features

You are ready to use the main features available in Loan Management, as described in the following steps:

1. Log into **FintechOS Portal** using a **user with an associated Loan Management security role**.  
Insert the user name and the password associated with it to log into the FintechOS Portal.
2. Add **customers** and **groups**, then set customer **limits**.  
Financial institutions deal with customers, either individuals or legal entities. Customers may be part of groups. In Loan Management, **create customer records** and attach them to **groups**. Monitor your financial institution's exposure for credit related activities by setting up limits for your customers. You can **manage limits** through a series of menus and reports available in Loan Management.
3. Register **collaterals**.  
Collateral management is the method of granting, verifying and managing collateral transactions in order to reduce credit risk in unsecured financial transactions. It is an essential and integral part of

any financial institution's risk and regulatory compliance framework. Manage collateral records in Loan Management, as described [here](#).

4. Manage **contracts**.

Any agreement between a financial institution and a customer regarding the usage of a banking product is documented legally with a contract. In Loan Management, you can create contracts for your financial institution's customers based on approvals. Read about contracts in the [Contracts](#) page.

5. Manage **credit facilities**.

Credit facilities are groupings of multiple credit products that a customer has arranged with a bank under a single credit limit. Read [here](#) how to manage credit facility records.

## External Request Processing

To improve the platform's overall performance through parallel processing, Loan Management sends by default the requests generated for processing outside of the platform, instead of being processed within the platform, through JobServer. Thus, Loan Management processes the requests in a parallel asynchronous way, through [Async Engine](#). There are specific flows developed for Loan Origination and for Loan Management processes, and their configuration is the following:

## Configuring the Loan Origination Async Engine

The configuration for Loan Origination-Async Engine is as follows:

1. The **UseExternalProcessing** Loan Management system parameter must be set to True for sending the requests for processing outside of the platform. Otherwise, the system processes the requests through JobServer.

2. For asynchronous transaction processing, the **Real Time Process** attribute on the desired transaction type must be set to **False**.
3. For asynchronous limit recalculation, the **AsyncLimitRecalculation** system parameter must be set to **True**.
4. The **LoanSubmissionFlowName** system parameter must be used when a request for the specific flow is triggered.
5. The **Async Engine** web API client library has to be loaded on the platform using the Async Engine swagger file.
6. The Vault settings for the Studio, Portal, and JobServer components must contain a key named **AsyncEngineURL** with the value of the Async Engine's URL.

## Configuring the Vault Settings for Loan Origination

flow.config - for the Origination processes

```
[
  {
    "flowName": "Flow_CB_LoanSubmission_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-customer",
        "endpointName": "FTOS_CB_LoanSubmission_AsyncEngine",
        "targetQueueName": "ftos-cb-customerlimit-create",
        "maxThreads": 10,
        "initial": true
      },
      {
        "sourceQueueName": "ftos-cb-customerlimit-create",
        "endpointName": "FTOS_CB_LoanSubmission_AsyncEngine",
        "targetQueueName": "ftos-cb-customerlimit-approve",
        "maxThreads": 10
      },
      {
        "sourceQueueName": "ftos-cb-customerlimit-approve",
        "endpointName": "FTOS_CB_LoanSubmission_AsyncEngine",
        "targetQueueName": "ftos-cb-settlementaccount-create",
        "maxThreads": 10
      },
    ]
  },
]
```



```

    {
      "sourceQueueName": "ftos-cb-settlementaccount-
create",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "targetQueueName": "ftos-cb-settlementaccount-
approve",
      "maxThreads": 10
    },
    {
      "sourceQueueName": "ftos-cb-settlementaccount-
approve",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "targetQueueName": "ftos-cb-topup-create",
      "maxThreads": 10
    },
    {
      "sourceQueueName": "ftos-cb-topup-create",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "targetQueueName": "ftos-cb-topup-approve",
      "maxThreads": 10
    },
    {
      "sourceQueueName": "ftos-cb-topup-approve",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "targetQueueName": "ftos-cb-loancontract-create",
      "maxThreads": 10
    },
    {
      "sourceQueueName": "ftos-cb-loancontract-create",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "targetQueueName": "ftos-cb-loancontract-approve",
      "maxThreads": 10
    },
    {
      "sourceQueueName": "ftos-cb-loancontract-approve",
      "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
      "maxThreads": 10
    }
  ]

```

```
}
]
```

queue.config - for the Origination processes

```
[
  {
    "name": "ftos-cb-customer",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-customerlimit-create",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-customerlimit-approve",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-settlementaccount-create",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-settlementaccount-approve",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-topup-create",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-topup-approve",
    "maxMessages": 10,
    "timeToLive": 1
  },
  {
    "name": "ftos-cb-loancontract-create",
    "maxMessages": 10,
    "timeToLive": 1
  }
]
```

```

    },
    {
      "name": "ftos-cb-loancontract-approve",
      "maxMessages": 10,
      "timeToLive": 1
    }
  ]

```

## Initiating a Loan Origination Request

1. Use the **FTOS\_CB\_StartLoanSubmissionFlow\_AsyncEngine** endpoint to initiate the loan submission process. Here's an example of the required payload:

### FTOS\_CB\_StartLoanSubmissionFlow\_AsyncEngine Request Example

```

{
  "customerInfo": {
    "firstName": "John",
    "lastName": "Smith",
    "UniqueID": "288",
    "email": "testcustomer@yahoo.com",
    "mobilePhone": "111-111-111",
    "pin": "1111111111"
  },
  "settlementAccount": {
    "productCode": "CA_EUR_REG",
    "startDate": "2023-10-06",
    "totalInterestRate": 0,
    "contractPeriod": 500,
    "currencyCode": "EUR"
  },
  "topUp": {
    "eventValue": "2000",
    "sourceAccount": "MyExternalAccount",
    "externalIdentifier": "TopUpSubmission"
  },
  "customerLimit": {
    "currencyCode": "EUR",
    "limitType": "Total Exposure",
    "expirePeriodType": "Years",
    "limitDate": "2023-10-06",
    "expirePeriod": "10",

```

```

        "reviewDate": "2023-12-21",
        "limitAmount": "60000"
    },
    "termLoanContract": {
        "productCode": "TL_REG_EUR",
        "startDate": "2023-10-06",
        "totalInterestRate": 5,
        "amountDue": 10000,
        "advanceAmountPercentage": 10,
        "advanceAmountValue": 1000,
        "productInterest": "Regression EUR Fix",
        "referenceRateDate": "2023-10-06",
        "referenceRate": 5,
        "margin": 5,
        "paymentScheduleType": "Equal Installment Monthly
360",
        "periodicityType": "Monthly",
        "contractPeriod": 12,
        "installmentDay": 26,
        "installmentMethod": "NextMonth",
        "managingBranch": "root",
        "destinationBankAccount": "GeneralMerchantBA",
        "reviewInterestDate": ""
    },
    "nextStage": "createCustomer"
}

```

2. Automatically, the async engine uses the **FTOS\_CB\_LoanSubmission\_AsyncEngine** endpoint to continue the process of loan submission. No further action is required on your part.

## Configuring the Loan Management Async Engine

The configuration for Loan Management-Async Engine is as follows:

1. The **UseExternalProcessing** Loan Management system parameter must be set to True for sending the requests for processing outside of the platform. Otherwise, Loan Management processes the requests through JobServer.
2. For asynchronous transaction processing, the **Real Time Process** attribute on the desired transaction type must be set to **False**.

3. For asynchronous limit recalculation, the **AsyncLimitRecalculation** Loan Management system parameter must be set to **True**.
4. The **RepaymentNotificationFlowName**, **BankAccountTransactionFlowName**, **LoanApprovalFlowName**, **AllocationFlowName**, **LimitRecalculationFlowName** Loan Management system parameters must be used when a request for the specific flow is triggered.
5. The **Async Engine** web API client library has to be loaded on the platform using the Async Engine swagger file.
6. The Vault settings for the Studio, Portal, and JobServer components must contain a key named **AsyncEngineURL** with the value of the Async Engine's URL.

Read the following section for more detailed information:

## Calling the External Request Processor

The asynchronous processing configuration is kept in the Vault.

### **IMPORTANT!**

Configure the external request processor app service to use the `async-engine` folder in Vault.

During implementation, create a web API client library to enable Loan Management to call these configurations, making sure the library uses the latest swagger file found at `<server_address>/services/specifications/swagger-ui`.



Web Api Client Library

Name AsyncEngine

Description

Api Type OpenApi

Min Platform Version

Is Used For Service Pipes ☒

Api Definition

```

openapi: 3.0.0
info:
  version: "1.0"
  title: Async Engine API

paths:
  /async/api/start:
    post:
      tags:
        - Start async engine
      operationId: startProcess
      parameters:
    
```

### IMPORTANT!

Set the Is Used for service pipes attribute to True.

Send the AsyncEngineURL parameter, stored in Vault, with the URL of the external request processor when importing the web api client library in the Loan Management context.

When the external request processor calls the Portal, the portal user client must be part of the Role defined in rbac.config vault parameter.

### IMPORTANT!

Make sure you create a user for running the OpenAPI pipelines. The user must be part of the Registered users group.

While calling the external request processor using the `startProcess` operation, send the following parameters:

- `flowName` - mandatory;
- `correlationId` - optional, automatically generated if missing;
- `payload` - mandatory.

## Configuring the Vault Parameters

You must configure a series of parameters so that your external request processor can receive and forward requests.

Add the `AsyncEngineURL` Vault parameter(s) to Loan Management Portal/ Studio/ JobServer. This is used when [importing the web API client library](#). Please use the keys for single or for multiple instances, as described below:

### AsyncEngineURL - for single instance configuration

```
"AsyncEngineURL_CoreBanking": "https://app-<async-engine-
instance>-<project_name>-<env>.azurewebsites.net",
"AsyncEngineURL_DistributionManagement": "https://app-
<async-engine-instance>-<project_name>-
<env>.azurewebsites.net",
"AsyncEngineURL_Origination": "https://app-<async-engine-
instance>-<project_name>-<env>.azurewebsites.net"
```

### AsyncEngineURL - for multiple instances configuration

```
"AsyncEngineURL_CoreBanking": "https://app-<async-engine-
instance_LoanManagement>-<project_name>-
<env>.azurewebsites.net",
"AsyncEngineURL_DistributionManagement": "https://app-
<async-engine-instance_Distribution>-<project_name>-
<env>.azurewebsites.net",
"AsyncEngineURL_Origination": "https://app-<async-engine-
instance_Origination>-<project_name>-
<env>.azurewebsites.net"
```

### **NOTE**

When using multiple Async Engine instances for the segregation of

processes, the parameters `flow.config` and `queue.config` must be split according to your configuration.

## Single Instance Configuration

The following parameters are used in the external request processor's Vault parameters in a single instance configuration:

### threadpool.config

```
{
  "poolSize": 10,
  "maxPoolSize": "1000",
  "maxQueueSize": "100"
}
```

### azure.storage.config

```
{
  "accountName": "<storage account name>",
  "accountKey": "<storage account key>",
  "suffix": "core.windows.net"
}
```

### openid.config

```
{
  "use-resource-role-mappings": "false",
  "autodetect-bearer-only": "true",
  "ssl-required": "external",
  "auth-server-url": "<auth server url>",
  "principal-attribute": "preferred_username",
  "resource": "<client used for authentication>",
  "credentials": {
    "secret": "<client secret>"
  },
  "realm": "<realm>"
}
```

### openapi.url

```
https://<open api
url>.azurewebsites.net/ftosapi/automation-
processors/actions/
```

openapi.username  
<username>

openapi.password  
<password>

flow.config

```
[
  {
    "flowName": "Flow_CB_LoanApproval_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-loan-approval",
        "endpointName": "FTOS_CB_ProcessLoanApproval_AsyncEngine",
        "initial": true
      }
    ]
  },
  {
    "flowName": "Flow_CB_RepaymentNotification_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-repayment-notification",
        "endpointName": "FTOS_CB_ProcessRepaymentNotification_AsyncEngine",
        "initial": true
      }
    ]
  },
  {
    "flowName": "Flow_CB_BankAccountTransaction_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-bankaccount-transaction",
        "endpointName": "FTOS_CB_ProcessBankAccountTransaction_AsyncEngine",
        "initial": true
      }
    ]
  }
]
```

```

    }
  ],
},
{
  "flowName": "Flow_CB_LimitRecalculation_
AsyncEngine",
  "queueMappings": [
    {
      "sourceQueueName": "ftos-cb-limit-
recalculation",
      "endpointName": "FTOS_CB_
LimitRecalculation_AsyncEngine",
      "initial": true,
      "maxThreads": 10
    }
  ],
},
{
  "flowName": "Flow_TPM_GenerateInvoiceDetails_
AsyncEngine",
  "queueMappings": [
    {
      "sourceQueueName": "ftos-tpm-find-
agreements",
      "endpointName": "FTOS_TPM_
FindMatchingAgreements_AsyncEngine",
      "targetQueueName": "ftos-tpm-build-
invoice-details",
      "initial": true
    },
    {
      "sourceQueueName": "ftos-tpm-build-
invoice-details",
      "endpointName": "FTOS_TPM_
BuildInvoiceDetails_AsyncEngine",
      "targetQueueName": "ftos-tpm-
calculate-pricings"
    },
    {
      "sourceQueueName": "ftos-tpm-calculate-
pricings",
      "endpointName": "FTOS_TPM_
CalculatePricings_AsyncEngine",

```

```

        "targetQueueName": "ftos-tpm-generate-
invoice-details"
    },
    {
        "sourceQueueName": "ftos-tpm-generate-
invoice-details",
        "endpointName": "FTOS_TPM_
GenerateInvoiceDetails_AsyncEngine"
    }
]
},
{
    "flowName": "Flow_TPM_GenerateInvoices_
AsyncEngine",
    "queueMappings": [
        {
            "sourceQueueName": "ftos-tpm-generate-
invoice",
            "endpointName": "FTOS_TPM_
GenerateInvoice_AsyncEngine",
            "initial": true
        }
    ]
},
{
    "flowName": "Flow_TPM_PayInvoices_AsyncEngine",
    "queueMappings": [
        {
            "sourceQueueName": "ftos-tpm-pay-invoice",
            "endpointName": "FTOS_TPM_PayInvoice_
AsyncEngine",
            "initial": true,
            "maxThreads": 10
        }
    ]
},
{
    "flowName": "Flow_CB_LoanSubmission_AsyncEngine",
    "queueMappings": [
        {
            "sourceQueueName": "ftos-cb-customer",
            "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",

```

```

        "targetQueueName": "ftos-cb-customerlimit-
create",
        "maxThreads": 10,
        "initial": true
    },
    {
        "sourceQueueName": "ftos-cb-customerlimit-
create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-customerlimit-
approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-customerlimit-
approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-
settlementaccount-create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-
settlementaccount-create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-
settlementaccount-approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-
settlementaccount-approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-topup-create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-topup-create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",

```

```

        "targetQueueName": "ftos-cb-topup-approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-topup-approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-loancontract-
create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-loancontract-
create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-loancontract-
approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-loancontract-
approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "maxThreads": 10
    }
]
},
{
    "flowName": "Flow_CB_RunAllocation_AsyncEngine",
    "queueMappings": [
        {
            "sourceQueueName": "ftos-cb-allocation",
            "endpointName": "FTOS_CB_Debt_to_Payment",
            "initial": true,
            "maxThreads": 1
        }
    ]
}
]

```



```

queue.config
[
    {
        "name": "ftos-cb-loan-approval",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-repayment-notification",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-bankaccount-transaction",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-limit-recalculation",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-tpm-find-agreements",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-tpm-build-invoice-details",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-tpm-calculate-pricings",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-tpm-generate-invoice-
details",
        "maxMessages": 10,
        "timeToLive": 1
    },
]

```

```

        {
            "name": "ftos-tpm-generate-invoice",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-tpm-pay-invoice",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-customer",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-customerlimit-create",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-customerlimit-approve",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-settlementaccount-create",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-settlementaccount-approve",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-topup-create",
            "maxMessages": 10,
            "timeToLive": 1
        },
        {
            "name": "ftos-cb-topup-approve",
            "maxMessages": 10,

```

```

        "timeToLive": 1
    },
    {
        "name": "ftos-cb-loancontract-create",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-loancontract-approve",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-allocation",
        "maxMessages": 1,
        "timeToLive": 1
    }
]

```

```

rbac.config
{
    "apiMappings": [
        {
            "url": "/api",
            "roles": [
                "<user profile created and used for service
account roles> "
            ]
        }
    ],
    "applicationMappings": [
        {
            "url": "/actuator",
            "roles": [
                "<user profile created and used for service
account roles>"
            ]
        }
    ],
    "swaggerMappings": [
        {
            "url": "/specifications",
            "roles": [

```

```

        "<user profile created and used for service
        account roles>"
    ]
}

```

#### redelivery.config

```

{
    "default": {
        "count": 2,
        "delay": 2
    },
    "additional": [
        {
            "httpStatus": 502,
            "count": 2,
            "delay": 1
        }
    ]
}

```

#### table.config

```

{
    "statusTable": "statusTableAsyncEngine",
    "dlqTable": "dlqTableAsyncEngine"
}

```

#### http.connection.config

```

{
    "requestTimeout": "180000",
    "connectionTimeout": "120000",
    "socketTimeout": "230000",
    "totalConnections": "1000000",
    "routeConnections": "500000",
    "connectionTimeToLive": "1000"
}

```

## Multiple Instances Configuration

The following parameters are used in the external request processor's Vault parameters in multiple instances configuration:

threadpool.config

```
{
  "poolSize": 10,
  "maxPoolSize": "1000",
  "maxQueueSize": "100"
}
```

azure.storage.config

```
{
  "accountName": "<storage account name>",
  "accountKey": "<storage account key>",
  "suffix": "core.windows.net"
}
```

openid.config

```
{
  "use-resource-role-mappings": "false",
  "autodetect-bearer-only": "true",
  "ssl-required": "external",
  "auth-server-url": "<auth server url>",
  "principal-attribute": "preferred_username",
  "resource": "<client used for authentication>",
  "credentials": {
    "secret": "<client secret>"
  },
  "realm": "<realm>"
}
```

openapi.url

```
https://<open api
url>.azurewebsites.net/ftosapi/automation-
processors/actions/
```

openapi.username

```
<username>
```

openapi.password  
<password>

flow.config - for the Loan Management processes

```
[
  {
    "flowName": "Flow_CB_LoanApproval_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-loan-approval",
        "endpointName": "FTOS_CB_ProcessLoanApproval_AsyncEngine",
        "initial": true
      }
    ]
  },
  {
    "flowName": "Flow_CB_RepaymentNotification_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-repayment-notification",
        "endpointName": "FTOS_CB_ProcessRepaymentNotification_AsyncEngine",
        "initial": true
      }
    ]
  },
  {
    "flowName": "Flow_CB_BankAccountTransaction_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-bankaccount-transaction",
        "endpointName": "FTOS_CB_ProcessBankAccountTransaction_AsyncEngine",
        "initial": true
      }
    ]
  }
],
```

```

    {
      "flowName": "Flow_CB_LimitRecalculation_
AsyncEngine",
      "queueMappings": [
        {
          "sourceQueueName": "ftos-cb-limit-
recalculation",
          "endpointName": "FTOS_CB_
LimitRecalculation_AsyncEngine",
          "initial": true,
          "maxThreads": 10
        }
      ]
    },
    {
      "flowName": "Flow_CB_RunAllocation_AsyncEngine",
      "queueMappings": [
        {
          "sourceQueueName": "ftos-cb-allocation",
          "endpointName": "FTOS_CB_Debt_to_Payment",
          "initial": true,
          "maxThreads": 1
        }
      ]
    }
  ]
}

```

flow.config - for the Origination processes

```

[
  {
    "flowName": "Flow_CB_LoanSubmission_AsyncEngine",
    "queueMappings": [
      {
        "sourceQueueName": "ftos-cb-customer",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-customerlimit-
create",
        "maxThreads": 10,
        "initial": true
      },
      {
        "sourceQueueName": "ftos-cb-customerlimit-
create",

```

```

        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-customerlimit-
approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-customerlimit-
approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-
settlementaccount-create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-
settlementaccount-create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-
settlementaccount-approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-
settlementaccount-approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-topup-create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-topup-create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-topup-approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-topup-approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",

```



```

        "targetQueueName": "ftos-cb-loancontract-
create",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-loancontract-
create",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "targetQueueName": "ftos-cb-loancontract-
approve",
        "maxThreads": 10
    },
    {
        "sourceQueueName": "ftos-cb-loancontract-
approve",
        "endpointName": "FTOS_CB_LoanSubmission_
AsyncEngine",
        "maxThreads": 10
    }
]
}
]

```

queue.config - for the Loan Management processes

```

[
    {
        "name": "ftos-cb-loan-approval",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-repayment-notification",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-bankaccount-transaction",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-limit-recalculation",
        "maxMessages": 10,
    }
]

```

```

        "timeToLive": 1
    },
    {
        "name": "ftos-cb-allocation",
        "maxMessages": 1,
        "timeToLive": 1
    }
]

```

queue.config - for the Origination processes

```

[
    {
        "name": "ftos-cb-customer",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-customerlimit-create",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-customerlimit-approve",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-settlementaccount-create",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-settlementaccount-approve",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-topup-create",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-topup-approve",

```

```

        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-loancontract-create",
        "maxMessages": 10,
        "timeToLive": 1
    },
    {
        "name": "ftos-cb-loancontract-approve",
        "maxMessages": 10,
        "timeToLive": 1
    }
]

```

```

rbac.config
{
    "apiMappings": [
        {
            "url": "/api",
            "roles": [
                "<user profile created and used for service
account roles>"
            ]
        }
    ],
    "applicationMappings": [
        {
            "url": "/actuator",
            "roles": [
                "<user profile created and used for service
account roles>"
            ]
        }
    ],
    "swaggerMappings": [
        {
            "url": "/specifications",
            "roles": [
                "<user profile created and used for service
account roles>"
            ]
        }
    ]
}

```

```

    ]
  }

```

#### redelivery.config

```

{
  "default": {
    "count": 2,
    "delay": 2
  },
  "additional": [
    {
      "httpStatus": 502,
      "count": 2,
      "delay": 1
    }
  ]
}

```

#### table.config

```

{
  "statusTable": "statusTableAsyncEngine",
  "dlqTable": "dlqTableAsyncEngine"
}

```

#### http.connection.config

```

{
  "requestTimeout": "180000",
  "connectionTimeout": "120000",
  "socketTimeout": "230000",
  "totalConnections": "1000000",
  "routeConnections": "500000",
  "connectionTimeToLive": "1000"
}

```

## Managing Unprocessed Requests

If a request is not processed by the Async Engine regardless of the reason, you can [view a message](#) in the dedicated **DLQ dashboard** in your FintechOS Portal. For accessing the dashboard, perform the needed [configurations](#) during the

implementation. [Send the request for reprocessing](#) by the Async Engine from the same dashboard, simply clicking a button next to that message.

## Configuring the Messages and Access Rights for the DLQ Dashboard

The **DLQ Messages** (dead letter queue) dashboard stores messages about the requests that the Async Engine could not process for any reason. To view the messages and to send the requests back to processing, make sure you perform the following configurations:

1. In FintechOS Studio, select the **Admin > System Parameters** menu.
2. On the newly displayed **System Parameters list** page, find and double-click the **DLQInterfaceQueuesToBeShown** [system parameter](#) to open it for editing. This parameter represents the list of queues from which the messages are displayed in the **DLQ Messages** dashboard in FintechOS Portal.
3. On the **Edit System Parameter** page, edit the parameter value to display the messages from the desired flows. Enter the names of the flows one by one, separated by commas and with no spaces between them. For example:

```
ftos-cb-loan-approval,ftos-cb-repayment-  
notification,ftos-cb-bankaccount-transaction,ftos-  
tpm-find-agreements,ftos-tpm-build-invoice-  
details,ftos-tpm-calculate-pricings,ftos-tpm-  
generate-invoice-details,ftos-tpm-generate-  
invoice,ftos-tpm-pay-invoice,ftos-cb-customer,ftos-  
cb-customerlimit-create,ftos-cb-customerlimit-  
approve,ftos-cb-settlementaccount-create,ftos-cb-  
settlementaccount-approve,ftos-cb-topup-create,ftos-  
cb-topup-approve,ftos-cb-loancontract-create,ftos-cb-  
loancontract-approve
```

The flows must be specified in Vault.

### NOTE

The order of messages displayed in the dashboard depends on

the order of the flows you mention here, so make sure you enter the most desired flow name first and then add them according to your priorities.

4. Click the **Save and Close** button.
5. Select the **Security > System Users** menu.
6. On the newly displayed **System Users list** page, find and double-click each user who should have access to the **DLQ Messages** dashboard.
7. [Edit the system users](#), assigning them the **Async Engine Admin** security role.
8. Click the **Save and Close** button.

Now you are ready to view the **DLQ Messages** dashboard and send any requests for reprocessing.

## Viewing the DLQ Messages

Follow these steps to view the requests that the Async Engine could not process:

1. In FintechOS Portal's **Home** page, select the **DLQ Messages** dashboard.

### NOTE

Your system user must have the **Async Engine Admin** security role to access the **DLQ Messages** dashboard.

2. View the messages in the list, if they exist. Each message contains the queue name, the flow name, the error message, the payload and the

time stamp of the unprocessed request.

APPS CONTRACTS CREDIT FACILITY DASHBOARD CUSTOMER LIMITS LOAN ADMIN OFFICER DASHBOARD RECORDS TO BE PURGED REPORTS <b>DLQ MESSAGES</b>						
<div>Refresh Export</div>						
Queue Name	Flow Name	Error	Payload	Timestamp	Reprocess	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"57245c57-979a-...	21/07/2023 09:25	Reprocess	
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"6d3c5f22-aaaa-4...	21/07/2023 09:25	Reprocess	
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"cf8fc935-144a-4...	21/07/2023 09:26	Reprocess	
ftos-tpm-pay-invoice	Flow_TPM_PayInvoices_AsyncEngl...	("message":"Source Bank Account...	("correlationId":"53167c93-82a8-...	21/07/2023 09:29	Reprocess	

## Reprocessing Failed Requests

You can send for processing each of the failed requests from the **DLQ Messages** dashboard one by one, as follows:

1. Click the **Reprocess** button in line with the desired request.
2. The request is sent back to the Async Engine for processing and an informative message is displayed on your screen.

## Holiday

Financial institutions are usually closed and do not process payments or repayments for loans during holidays, hence the repayment schedules may be adapted to take the into consideration. In Loan Management, you can indicate the public holidays for the country used in the product definition, for the calendar years over which the financial institution's current business is spread.

Loan Management uses two methods for loan repayment processing when the holidays are taken into consideration in the schedule projections:

- **Shift forward:** the payment date is shifted to the first working day after the usual scheduled execution date.
- **Shift backward:** the payment date is shifted to the previous working day before the usual scheduled execution date.

In order to set up specific days when payments are not processed, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configuration** menu.
2. Click the **Holiday** menu item to open the **Holidays List** page.

HOLIDAYS LIST	
<input type="checkbox"/> Name	Country
Q	Q
WeekendFirstDay	Vietnam
WeekendSecondDay	Vietnam
Liberation Day/Reunification Day	Vietnam
New Year's Eve	Thailand
New Year's Eve Second Day	Thailand
5 10 20	1 2 3 4

On the **Holidays List** page, you can add new holiday records or search, edit, and delete existing ones.

## Creating Holiday Records

Follow these steps to create holiday records specific to your financial institution's country or organization:

1. Click the **Insert** button on the top right side of the **Holiday List** page. The **Add Holiday** page is displayed.



2. Fill in the following fields:

ADD HOLIDAY

Holiday

Name

WeekendFirstDay

Code

FNW

Day & Month

Country

Belgium

↓

Week Day

Saturday

↓

- **Name** - Enter the name of the holiday.
- **Code** - Enter the code of the holiday.
- **Country** - Select the country in which the holiday rule applies to.
- **Week Day** - For repetitive holidays, select the weekday on which the holidays falls on.
- **Day and Month** - For holidays with a fixed date, enter the day and month, in the dd.mm format.

3. Click the **Save and Reload** button at the top right corner of the page. Loan Management populates the **Calendar Holidays** section with the exact dates of the holidays.

CalendarHolidays

+ Insert

× Delete

Export

Refresh

<input type="checkbox"/> Holiday Name	Holiday Date
WeekendFirstDay	05/01/2019
WeekendFirstDay	12/01/2019
WeekendFirstDay	19/01/2019
WeekendFirstDay	26/01/2019
WeekendFirstDay	02/02/2019

5

10

20

1

2

3

4

5

...

You can insert, delete, or export the calendar holiday data.

# Allocation Method

Allocation methods represent the order in which a financial institution proportionally allocates a portion of the payment to either fees, commissions, interest, and other credit items associated with the account, with the aim of closing the loan principal. FintechOS uses allocation methods to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on.

You can manage allocation methods through the **Allocation Method** menu, which stores information about the details and the banking products using those specific definitions in their product service configuration setup. Follow these steps to manage such records:

1. In the FintechOS Portal, click the main menu icon and expand the **Admin Configuration** menu.
2. Click the **Allocation Method** menu item to open the **Allocation Method** page.

ALLOCATION METHOD	
<input type="checkbox"/>	Name
Q	
	BPAAdminAllocMethod
	CostOrder

On the **Add Allocation Method** page, you can add new allocation methods or search, edit, and delete existing ones.

**NOTE**

The default allocation method used by Loan Management for manual repayment notifications that aren't linked to a contract is stored in the [ManualAllocationMethod](#) system parameter.

## Creating Allocation Methods

To create a new allocation method, follow these steps:

1. Click **Insert** on the **Allocation Method** page to open the **Add Allocation Method** page.
2. Enter a **name** for the allocation method.

### EDIT ALLOCATION METHOD

#### Main Information

Name

CostOrder

3. Click the **Save and Reload** button. The **Allocation Method Details** and the **Banking Products** sections are displayed.
4. In the newly displayed **Allocation Method Details** section, click **Insert** to open the **Add Allocation Method Details**.
5. Fill in the following fields:

### EDIT ALLOCATION METHOD DETAIL

#### Allocation Method

Credit Item

Loan Interest



Minimum Overdue Days

0

Maximum Overdue Days

9,999,999

- **Credit Item** - Select the credit item of the allocation method.
- **Minimum Overdue Days** - Enter the minimum number of overdue days for the credit item.
- **Maximum Overdue Days** - Enter the maximum number of overdue days for the credit item.

### NOTE

The maximum and minimum number of overdue days is relevant when

creating allocation methods as an account can have one or more loan principals. If, for example, there are two loan principals, the allocation method is applied based on the oldest one. Thus, depending on the date, the installment is allocated to the oldest loan principal and then moved to the other credit items.

### IMPORTANT!

When editing credit items, the **IncludeInPenaltyCalculation** checkbox is available. If selected, the penalty amount is taken out of the account first. For more details, see [Operation Item](#).

ADD OPERATION ITEM

Main Information




Code	Name	Include In Penalty Calculation	Penalty Item (for Repayment Notification)
LP	Loan Principal	<input checked="" type="checkbox"/>	Overdue Principal ↓ ✎

- Click the **Save and Close** button at the top right corner of the page.

- Back on the **Edit Allocation Method** page, view the banking products associated with the allocation method previously created in the **Banking Products** section.

#### Banking Products

 Export  Refresh

<input type="checkbox"/>	Name	Banking Product Code	Status
			
	BNPL SLICE	BNPL SLICE	Approved
	Loan Period Days	BNPL_eMAG	Approved
	BNPL_EUR	BNPL_EUR	Approved
	BNPLM	BNPLM	Approved
	BP21	BP21	Approved

## Exchange Rate

Exchange rates represent the value between the currencies of two countries on a given date. These rates are free-floating or fixed. In most cases, exchange rates are free-floating and the value can rise or fall based on market supply and demand. Fixed exchange rates have more restrictions and their value is set by the government.

Loan Management uses exchange rates in limit, collateral, credit facility, and third-party invoices calculations, when the contract and the attached limit/ collateral, the credit facility and its attached contracts, or the third-party invoice and its details are expressed in different currencies. Subledger also uses exchange rates to calculate all amounts using the [accounting reference currency](#).

To manage exchange rates needed in financial operations, follow these steps:

- In FintechOS Portal, click the main menu icon and expand the **Admin Configuration** menu.

- Click the **Exchange Rate** menu item to open the **Exchange Rate** page.

EXCHANGE RATE

<input type="checkbox"/>	Name	Exchange Date	From Currency	To Currency	Calculated Exchange ...	Exchange Rate	Multiplicator
	🔍	🔍	📅 🔍	🔍	🔍	🔍	🔍
	0.89	05/07/2021	USD	EUR	0.89000000	0.8900	1
	1	25/08/2022	EUR	EUR	1.00000000	1.0000	1
	1.101	27/04/2021	RON	USD	1.10100000	1.1010	1
	1.101	27/04/2021	EUR	USD	1.10100000	1.1010	1
	1.101	27/04/2021	EUR	RON	1.10100000	1.1010	1

5

1020

1

2

3

4

5

...

On the **Exchange Rate** page, you can add new exchange rates or search, edit, and delete existing ones.

## Creating Exchange Rates

Follow these steps to create a new exchange rate:

- Click the **Insert** button on the **Exchange Rate** page to open the **Create and Save** page.
- Fill in the following fields:

Create And Save

<b>Exchange Type</b> <input type="text" value="Bank Exchange Rate"/>	<b>From Currency</b> <input type="text" value="EUR"/>	<b>To Currency</b> <input type="text" value="USD"/>
<b>Exchange Date</b> <input type="text" value="28/07/2022"/>	<b>Exchange Rate</b> <input type="text" value="1.01"/>	<b>Multiplicator</b> <input type="text" value="1"/>
<b>Calculated Exchange Rate</b> <input type="text" value="1.01"/>		

- **Exchange Type** - Select the exchange type rate, if more than one was created in Loan Management.
- **Exchange Date** - Select the date of the exchange rate.
- **From Currency** - Select the currency from which the exchange rate is made.
- **To Currency** - Select the currency into which the exchange is performed.

- **Exchange Rate** - Enter the exact rate for the exchange to be applied on the exchange date.
  - **Multiplicator** - You can multiply the exchange rate value with the whole number that you insert here. The default value is 1.
  - **Calculated Exchange Rate** - Automatically completed with the exchange rate calculated based on the following formula:  $\text{ExchangeRate} * \text{Multiplicator}$ . You can edit the field.
3. Click the **Save and Close** button. Loan Management saves the exchange rate record.

## Exchange Rate Type

Although Loan Management uses only the BER (Bank Exchange Rate) is used when defining exchange rates, if there is a need to differentiate between exchange rates based on currency market or business area you can create exchange rate types.

To manage exchange rate types, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configuration** menu.
2. Click the **Exchange Rate Type** menu item to open the **Exchange Rate Types List** page.

### EXCHANGE RATE TYPES LIST

<input type="checkbox"/>	Name
	Q
	Bank Exchange Rate

On the **Exchange Rate Type** page, you can add new exchange rates types or search, edit, and delete existing ones.

## Creating Exchange Rates Types

Follow these steps to create a new exchange rate:

1. Click the **Insert** button on the top right side of the **Exchange Rate Types List** page. The **Add Exchange Rate Type** page is displayed.
2. Fill in the following fields:

EDIT EXCHANGE RATE TYPE

Name

Bank Exchange Rate

Code

BER

Finish

- **Name** - Enter the name of the exchange rate type.
- **Code** - Enter the code of the exchange rate type.

3. Click **Finish** at the bottom right corner of the page.

## Loan Classification

Financial institutions classify their existing loan contracts based upon the days past due (DPD), the number of days passed since repayment due date without fully repaying the due amount for the oldest unpaid repayment notification. In order to comply with the risk method calculation, the DPD (days past due) value is calculated as the number of days between the contract's due date and the current system date of Loan Management.

Banking being a highly regulated sector such requirements are usually enforced either with regional or local rules. The financial institutions can apply different provision percentages for principal or for interest for each contract, based on this classification: the higher the delay period, the higher the provision percentage applicable and the



risk classification. Since the provisions have an impact on the financial results of the institution, this is again driven by [regulations](#) and may vary in time or depending on country or region.

### IMPORTANT!

Loan classification works by risk contamination at the customer and the group levels. This means that if a loan contract belonging to a customer is classified as one of a higher risk due to delays in the repayment process, all the other loans of the customer and of the group where the customer is a member are further classified into that high-risk classification.

After the due amounts are paid and the contract is closed, either automatically or manually, Loan Management automatically resets the DPD days to zero.

The [UseContaminationForDPDCategory](#) Loan Management system parameter specifies whether Loan Management should use the risk contamination for loan classification or not.

The risk classification of loan contracts is automatically performed by the Update Loan Classification (CB) scheduled job based on the loan classification records' definition.

To manage loan classification records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click **Loan Classification** menu item to open the **Loan Classifications List** page.

LOAN CLASSIFICATIONS LIST							
<input type="checkbox"/> Category Label	MinDelay	MaxDelay	Provision Principal Percent	Provision Interest Percent	Stop Accrual Process	Stop Penalty Process	Associated Products
<input type="checkbox"/> Normal	0	30	1.00	0.50	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Special mention	31	90	3.00	1.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Sub-standard	91	180	5.00	3.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Doubtful	181	364	7.00	4.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Loss	365	9,999,999	10.00	5.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

On the **Loan Classifications List** page, you can add new classification records or search, edit, and delete existing ones. You can also:

- Stop the accrual process for contracts that fall under a specific classification. Select the **Stop Accrual Process** checkbox next to a record to except all contracts within that category from the accrual calculation processes. All the following categories are automatically excepted from the accrual calculation processes.
- Include the contracts within a loan category into the accrual processes calculation by deselecting the **Stop Accrual Process** checkbox next to a record. You can do this only after deselecting the **Stop Accrual Process** checkboxes next to each of the lower categories.
- Stop the penalty process for contracts that fall under a specific classification. Select the **Stop Penalty Process** checkbox next to a record to except all contracts within that category from the penalty calculation processes. All the following categories are automatically excepted from the penalty calculation processes.
- Include the contracts within a loan category into the penalty processes calculation by deselecting the **Stop Penalty Process** checkbox next to a record. You can do this only after deselecting the **Stop Penalty Process** checkboxes next to each of the lower categories.

**IMPORTANT!**

You must have the [Loan Admin Officer](#) security role to select or deselect the **Stop Accrual Process** and **Stop Penalty Process** checkboxes.

## Creating Loan Classification Records

Follow these steps to create new loan risk classification records:

1. Click **Insert** button on the **Loan Classifications List** page to display the **Add Loan Classification** page.

2. Fill in the following fields:

Add Loan Classification

Loan Classification

<b>Name</b> <input type="text" value="Special mention"/>	<b>Category Label</b> <input type="text" value="Special mention"/>	<b>MinDelay</b> <input type="text" value="31"/>	<b>MaxDelay</b> <input type="text" value="90"/>
<b>ClassCode</b> <input type="text" value="1"/>	<b>Provision Interest Percent</b> <input type="text" value="1"/>	<b>Provision Principal Percent</b> <input type="text" value="3"/>	<b>Associated Products</b> <input type="button" value="Select Items to include"/>
<b>Stop Accrual Process</b> <input type="checkbox"/>	<b>Stop Penalty Process</b> <input checked="" type="checkbox"/>		

- **Name** - Enter the unique name of the risk classification record.
- **Category Label** - Enter the label of the risk classification record.
- **MinDelay/ MaxDelay**- Enter the minimum/ maximum number of days past since a repayment due date without performing the repayment for a loan contract in order for the contract to be classified in this risk classification.
- **ClassCode** - Enter a code for this risk classification. This code is used in automatic calculations for contracts classified in one of the risk categories.
- **Provision Principal Percent/ Provision Interest Percent** - Enter the provision percentage applicable to the principal/ interest amount of contracts falling into this loan risk classification.
- **Associated Products** - Optionally, select from the list the banking products which are the basis for contracts falling into this loan risk classification. If you don't select one or more banking products, then contracts based on any product can fall into this loan risk classification.
- **Stop Accrual Process** - If you select the checkbox, then the contracts that fall within this loan classification delay category are excluded from the accrual calculation processes. If a category is marked as true, all the following categories are automatically marked as true and excepted from the accrual calculation processes.  
You can include the contracts within a loan category into the accrual processes calculation by deselecting the **Stop Accrual Process** checkbox next to a record, within the **Loan Classifications List** page. You can do this only after deselecting the **Stop Accrual Process** checkboxes next to each

of the lower categories.

- **Stop Penalty Process** - If you select the checkbox, then the contracts that fall within this loan classification delay category are excluded from the penalty calculation processes. If a category is marked as true, all the following categories are automatically marked as true and excepted from the penalty calculation processes.

You can include the contracts within a loan category into the penalty processes calculation by deselecting the **Stop Penalty Process** checkbox next to a record, within the **Loan Classifications List** page. You can do this only after deselecting the **Stop Penalty Process** checkboxes next to each of the lower categories.

3. Click the **Save and Close** button.

## Loan Periodicity

Loan Management uses the loan periodicity dictionary used to define the regularity of payments. For example, payments related to loan contracts, commissions, or installments can be performed once, daily, monthly, yearly, and so on.

To manage loan periodicity records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.

2. Click the **Loan Periodicity** menu item to open the **Loan Periodicity** page.

LOAN PERIODICITY		
<input type="checkbox"/> Name	Periodicity	Measurement Unit
<input type="text"/>	<input type="text"/>	<input type="text"/>
Once	0	Once
1DAY	1	Days
Monthly	1	Months
Weekly	1	Weeks
Bimonthly	2	Weeks
5 10 20		1 2 3

On the **Loan Periodicity** page, you can add new loan periodicity records or search, edit, and delete existing ones.

# Creating Loan Periodicity Records

Follow these steps to create new loan periodicity records:

1. Click **Insert** on the **Loan Periodicity** page. The **Add Loan Periodicity** page is displayed.
2. Fill in the following fields:

ADD LOAN PERIODICITY		
Main Information		
Name	Periodicity	Measurement Unit
<input type="text" value="1Day"/>	<input type="text" value="1"/>	<input type="text" value="Days"/>

- **Name** - Enter the name of the periodicity.
- **Periodicity** - Enter the number of measurement units for the periodicity.
- **Measurement Unit** - Select the measurement unit applicable for the periodicity from the drop-down. Possible values: Days, Weeks, Months, Years, and Once.

3. Click the **Save and Reload** button. The new loan periodicity is created and ready to be used.

## Operation Item

Operation items are those items that relate to a bank's core business, such as all types of fees, commissions, principals, interests, advances or penalty calculations. You can also consider them as balance types that add up to a certain deal or used in tracing what happened on a particular deal. For instance, on the first day of using a new loan, there is only the Loan Principal (LP) on that deal, or it can also have an Advance (ADV) in some particular cases or even a Front-End Fee (FEF). As the deal progresses, depending on the definition and costs, as well as on repayments, the loan principal can become Paid Principal (PP) or Overdue Principal (OVP) if due amounts are not paid.

Loan Management uses operation items in the calculation processes of payment and repayment notifications, due amounts, accounting entries, and others.

### NOTE

If a repayment notification is not linked to a contract, then Loan Management takes the operation item value from the allocation method configured within the [ManualAllocationMethod](#) system parameter.

If a repayment notification is created for a contract with **Closed** status, then Loan Management takes the operation item value from the allocation method selected at the product service configuration level.

## Examples of Using Operation Items

Example of using an operation item within a commission type definition:

**EDIT COMMISSION TYPE**

**COMMISSION TYPE**

Commission Schema

Payment Holiday

↓

✎

Name

Payment Holiday Fee

Periodicity Type

Once

✕

▼

Operation Item

Payment Holiday Fee

↓

✎

Example of using an operation item within an interest definition:

**EDIT INTEREST**

**INTEREST**

Code

TSTP

Name

Penalty interest

Is Default

☐

Use Banking Formula

☐

Interest Type

Fixed

▼

Is Penalty

☒

Applied To Loan Item

Overdue Principal

✕

▼

For Sight Deposit

☐

Is For Overdraft

☐

Is Credit Line Interest

☐

Is Debit Order Interest

☐

Description

**INTEREST VALUE**

Example of using an operation item within a repayment notification's details:

EDIT REPAYMENT NOTIFICATION

REPAYMENT NOTIFICATION

No.

198865

Contract

3481

Currency

EUR

Notification Date

17/06/2022

Maturity Date

17/06/2022

Total Amount

77.88

REPAYMENT NOTIFICATION DETAILS

Export

Refresh

Operation Item	Value	RemainingValue	Is Paid
Loan Principal	76.92	76.92	<input type="checkbox"/>
Loan Interest	0.96	0.96	<input type="checkbox"/>

PAYMENT ALLOCATIONS

Payment No.	Payment Date	Operation Item	Allocated Amount	DueDate	Delay (days)
-------------	--------------	----------------	------------------	---------	--------------

To manage operation item records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click the **Operation Item** menu to open the **Operation Item** page.

OPERATION ITEM		
Code	Name	IncludeInPenaltyCalculation
Q	Q	(All)
RPF	Repayment Fee	<input type="checkbox"/>
LP	Loan Principal	<input checked="" type="checkbox"/>
LLI	Life Insurance	<input type="checkbox"/>
LAF	Loan Admin Fee	<input type="checkbox"/>
LI	Loan Interest	<input checked="" type="checkbox"/>
FEF	Front-end Fee	<input checked="" type="checkbox"/>
MGT	Management Fee	<input type="checkbox"/>
OVP	Overdue Principal	<input type="checkbox"/>
OVI	Overdue Interest	<input type="checkbox"/>

On the **Operation Item** page, you can add new operation item records or search, edit, and delete existing ones.

## Creating Operation Item Records

Follow these steps to create new operation item records:



1. In the FintechOS Portal, click the **Insert** button on the top right side of the **Operation Item** page. The **Add Operation Item** page is displayed.
2. Fill in the following fields:

ADD OPERATION ITEM

Main Information

<p style="font-size: 0.8em; margin: 0;">Code</p> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">LP</div>	<p style="font-size: 0.8em; margin: 0;">Name</p> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;">Loan Principal</div>	<p style="font-size: 0.8em; margin: 0;">Include In Penalty Calculation</p> <div style="text-align: center; margin-top: 5px;"> <input checked="" type="checkbox"/> </div>	<p style="font-size: 0.8em; margin: 0;">Penalty Item (for Repayment Notification)</p> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="border: 1px solid #ccc; padding: 2px; flex-grow: 1;">Overdue Principal</div> <div style="margin-left: 5px; font-size: 0.8em;">             ↓  </div> </div>
---	---	--	--

- **Code** - Enter the unique code of the operation item.
- **Name** - Enter the name of the operation item.
- **Include In Penalty Calculation** - Select the checkbox to mark this new item as an operation item used for penalty calculation.

### NOTE

If a banking product has in its attached interests list an interest with **Is General = True**, then at the contract level the penalty percent is applied to all operation items that are overdue and are marked with **Include In Penalty Calculation = True**. Read more information about interests and how to define them on the **Interests** page within the [Banking Product User Guide](#).

- **Penalty Item (for Repayment Notification)** - If **Include In Penalty Calculation = True**, select from the list an existing operation item in whose penalty calculation this new item must participate.
3. Click the **Save and Close** button.

# Loan Management System Parameters

The system parameters used by Loan Management determine the behavior of all the contracts, transactions, limits, and other parts that make up your Loan Management system.

## NOTE

Do not confuse the Loan Management system parameters with the FintechOS system parameters, stored in the `systemparameter` and `systemParameterOnPortalProfile` entities!

## Predefined Loan Management System Parameters

Here's the list of system parameters used by Loan Management, along with their description:

### AccountingAnalyticChar

It represents the analytic character used when displaying decimal numbers.

Module that uses the system parameter: Loan Admin

Parameter type: Text

Default value: .

### AccountingRealTime

It specifies if all accounting entries are generated real-time (for `True` value) or on demand (for `False` value).

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: **False**

## AdvanceNotification

It specifies if the advance to be paid in a contract is displayed in a new repayment notification record (for `False` value) or included in the front-end fee repayment notification (for `True` value).

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: **False**

## AsyncContractApproval

When set to `True`, the approval of a contract only switches the change of business status of the contract to `Approved`, and the following approval processes, such as generating a main bank account, updating the contract with the main bank account number, if the `Auto Disbursement = True` then perform the disbursement event, generate a repayment schedule, generate and then process repayment notifications, are written to a queue and then are treated asynchronously by the [Async Contract Approval \(CB\) scheduled job](#). When set to `False`, the approval processes are all synchronous, at the moment when you trigger the approval.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: **False**

## AsyncLimitRecalculation

The parameter indicates how the limit recalculation on repayment is handled by Loan Management, real-time (for `False` value) or asynchronously (for `True` value) through the [Async Limit Recalculation scheduled job](#).

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: **False**

## BankAccountTransactionFeeMarkDown

This parameter instructs the system how to process bank account transaction operations. Possible values:

- **Total** - the system creates 4 operations – 2 for debit and 2 for credit for the transaction value and sum(fees)
- **Individual** - the system creates  $2 * (1 + \text{NoFees})$  operations – debit and credit for the transaction value and each fee.

Module that uses the system parameter: Loan Admin

Parameter type: Text

Default value: **Total**

## BankAccountTransactionFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the bank account transaction flow.

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: **Flow\_CB\_BankAccountTransaction\_AsyncEngine**

## AllocationFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the payment allocation flow.

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: Flow\_CB\_RunAllocation\_AsyncEngine

## CalculateAccrualEarlyRepayment

It specifies whether the accrual and provision should be calculated for early repayments with the event value equal to a part of contract's unpaid amount (partial early repayments) or only for full early repayments.

- For `True` value, the accrual and provision is calculated for any early repayment event value.
- For `False` value, the accrual and provision is calculated only for full early repayment event value.

For each early repayment event, the accrual and provision is calculated only if it was not calculated before for the current system date.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: Set it according to the bank's policy.

## FTOS\_CB\_CalculatedProvisions

It specifies whether Loan Management should calculate (for `True` value) or not (for `False` value) the provisions in the accruals and provisions processes.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: `False`.

## CalendarYearEnd

The maximum year in the calendar to be used when generating holidays for calendars. Format: YYYY.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 2100.

## CalendarYearStart

The minimum year in the calendar to be used when generating holidays for calendars. Format: YYYY

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 2019.

## CacheControlPanel

It is used to cache the system date within the FTOS\_CB\_SystemDate library, for True value. The same date is also used in the [Control Panel](#) within the **Utilities** package.

Modules that use the system parameter: Banking Product, Loan Management

Parameter type: Bool

Default value: False.

## CreditFacilityLimitPercent

It represents the default limit of credit facility records.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 30.

## CurrentAccount\_WithOverdraft\_DaysBeforeExpire

It represents the number of days before the overdraft feature's expiration date of a current account when the contract based on that banking product gets displayed in the **Soon to Expire Ovedrafts** dashboard.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 30.

## CustomerToContractDirectDebitSettlementAcc

It handles the change on a customer's contracts once the Direct Debit Settlement Account attribute at the customer level is switched to true or false.

- If CustomerToContractDirectDebitSettlementAcc = False, the changes from the customer level for direct debit settlement do not impact existing contracts, and only the manual repayment notifications of the affected customer change their status accordingly.
- If CustomerToContractDirectDebitSettlementAcc = True, the changes at the customer level for direct debit settlement impact current contracts. All the customer's existing contracts' Direct Debit Settlement Account settings are changed according to the setting at the customer level, and all the repayment notifications associated to the customer change their status accordingly.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: Set it according to the bank's policy.

## DaysBeforePurge

It represents the default number of calendar days that a record will be kept in Draft status before it is purged. The records that are due to be purged on the current day and have their transaction type's **To Be Purged** field marked as True are displayed in the [Records To Be Purged Dashboard](#), within the section specific to the record's transaction type. The job performing the deletion is `Delete Purged Entries` and it should be scheduled at the bank's level.

The custom job error records are also purged at the interval given by this parameter.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: Set it according to the bank's policy.

## DaysFutureInstallmentsReport

It represents the default number of days before an installment's due date in order for that installment to be included in the **Future Installments** report within the [Reports Dashboard](#).

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 15.

## DaysPastDueInstallmentsReport

It represents the default number of days after an unpaid installment's due date in order for that installment to be included in the **Past Due Installments** report within the [Reports Dashboard](#).

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 25.



## FTOS\_CB\_DashboardCurrency

It specifies the currency in which all the amounts are displayed within the **Contracts Overview** section of the dashboards.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity: Currency

Default value: EUR

## FTOS\_CB\_DashboardDefaultLastXDays

It represents the default number of days considered when running the reports within the dashboards.

Module that uses the system parameter: Loan Admin

Parameter type: Numeric

Default value: 365

## DefaultIntervalLimitsReport

It represents the default number of months considered when running the reports within the [Limit Report](#) dashboard.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 12

## DefaultSalesChannelAPI

It represents the default sales channel for contracts defined via API integration.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity SalesChannel

Default value: Set it according to the bank's policy.

## DefaultSalesChannelBackOffice

It represents the default sales channel for contracts defined through the Loan Management user interface.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity SalesChannel

Default value: Set it according to the bank's policy.

## DefaultWriteOffReconciliationAccountBankingProduct

It represents the financial institution's internal write-off account defined for the system's default currency. The write-off transaction takes the remaining amount from the internal write-off account and credits the loan account. The value is used at the product service configuration level, but you can change the account according to your needs.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity: Bank Account

Default value: Select an internal reconciliation account according to the financial institution's policy.

## DelayDaysForBlockNewContractApproval

It represents the default number of delay days for blocking the approval of new loan contracts for customers who have overdue payments. New contract approval is blocked by Loan Management if the customer has overdue days  $\geq$  the value of the DelayDaysForBlockNewContractApproval parameter.

Module that uses the system parameter: Collection

Parameter type: Whole Number

Default value: 0

## DepositAggregateItemValues

It specifies if the deposit interest is split in two lines or displayed in one line.

- For `False` value, the system splits the **Deposit interest to recover** in two lines (- paid interest -> recover all; sight interest to pay, pay all).
- For `True` value, the system displays the **Deposit interest to recover** in one line with the aggregate value.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: `False`.

## EarlyRepaymentFee\_IndividualNotification

It specifies whether to generate a separate repayment notification for the early repayment fee of a contract (for `True` value) or include the fee into the repayment notification containing the actual early repayment amount (for `False` value).

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: `False`.

## FTOS\_CB\_ExchangeRate\_UseLatest

It specifies whether Loan Management should use the latest available exchange rates for calculations or not.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: `True`.

## FrontEndFee

It specifies the commission type used for automatic notification on contract approval (Inclusion)/ or notification daily process (Exclusion).

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity CommissionType

Default value: Front-end Fee.

## IncludeDAEIntoScheduleCalculation

It specifies whether Loan Management should include APRC (annual percentage rate of charge) for repayment schedule calculations or not.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True.

## LimitMandatoryForIndividuals

It specifies whether Loan Management should validate the limits for individual customers or only validate them for legal entity customers.

- For False value, Loan Management does not validate any limits for the individual customers.
- For True value, Loan Management validates all the limits for the individual customers the same way it does for legal entity customers.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True.

## LimitRecalculationFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the limit recalculation flow.

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: Flow\_CB\_LimitRecalculation\_AsyncEngine

## LoanApprovalFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the [loan contract approval flow](#).

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: Flow\_CB\_LoanApproval\_AsyncEngine

## LoanSubmissionFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the loan contract submission flow.

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: Flow\_CB\_LoanSubmission\_AsyncEngine

## LogScheduleJobError

It specifies whether job errors should be logged (for True value) as custom job error records or not (for False value). The custom job error records are purged at the interval given by the [DaysBeforePurge](#) parameter.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: False.

## ManualAllocationMethod

The default allocation method used by Loan Management for manual repayment notification unlinked to a contract or when contracts have products without allocation method defined.

Module that uses the system parameter: Collection

Parameter type: Lookup. To entity: AllocationMethod

Default value: CostOrder

## ManualGraceRepayment

The parameter is used to set up the maturity date on manual repayment notification, if the notification is not linked to a contract.

Module that uses the system parameter: Collection

Parameter type: Whole Number

Default value: Set it according to the bank's policy.

## ManualPenaltyInterestList

The parameter holds the penalty interest list used for penalty calculation for manual repayment notifications that are not linked to a contract.

Module that uses the system parameter: Banking Product

Parameter type: Lookup. To entity: InterestList

Default value: ManualPenaltyInterestList

## ManualRepaymentFee

It specifies whether a banking product can have only one **Repayment Fee** type commission on its **Commission List** or more. This parameter affects the **Contract Event** page.

- For False value, the banking product has only one Repayment Fee commission type on its commission list.
- For True value, the banking product's commission list displays all the commissions stored in the Commission entity with type Repayment Fee.

Read more information about the effects of this parameter's value in the [Transaction Fees section](#).

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True.

## PurgeScheduleJobLogDays

It specifies the number of days used to select the old data from the schedule job log to be purged.

Module that uses the system parameter: Loan Admin

Parameter type: Whole Number

Default value: 1.

## ReconciliationAccountTreatment

Specifies how Loan Management treats situations when the funds of the reconciliation account specified for the product service configuration of the banking product used in the contract would go below zero if a disbursement event would be approved.

- For **NoMessage** value, there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- For **Warning** value, there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- For **Error** value, there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero.

This is a system-wide setting, applicable to events for contracts based on all banking products without a specified **Negative balance treatment** value. Loan Management also takes into consideration the settings used at the product service configuration level (the **Negative balance treatment** field's value next to **Reconciliation Account**). Thus, if the value is specified at the product service configuration level, then that value takes precedence over the system parameter's setting.

Module that uses the system parameter: **Banking Product**

Parameter type: **Option Set**. Values from option set:  
**WarningErrorTreatment**

Default value: **Warning**.



## RepaymentFee

The commission type used for notification daily process (Exclusion).

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity: CommissionType

Default value: Repayment Fee

## RepaymentNotificationFlowName

The parameter is used for the external request processing through Async Engine, when triggering a request for the repayment notification flow.

Module that uses the system parameter: Loan Admin

Parameter type: Text.

Default value: Flow\_CB\_RepaymentNotification\_  
AsyncEngine

## ThirdPartyPaymentsIsNet

It specifies whether Loan Management should generate one or two bank account transactions and payments for a third-party agreement invoice when the invoice's status is changed from **Approved** to **Unpaid**.

For False value, two bank account transactions are generated with two payments:

- One transaction with **source** account = Settlement Account and **destination** account = Reconciliation Account with the value of Total Amount To Recover;

- Another transaction with **source** account = Reconciliation Account and **destination** account = Settlement Account with the value of Total Amount To Pay.

For True value, Loan Management calculates the difference between Total Amount To Recover and Total Amount To Pay. Only one bank account transaction is generated and only one payment, representing the non-zero value between the Total Amount To Recover and the Total Amount To Pay, as follows:

- If  $\text{Total Amount To Recover} - \text{Total Amount To Pay} > 0$ , a new bank account transaction is generated with **source** account = Settlement Account and **destination** account = Reconciliation Account, and a payment is generated for the invoice.
- If  $\text{Total Amount To Recover} - \text{Total Amount To Pay} = 0$ , a bank account transaction is generated, and the transaction's status changes to **Paid**.
- If  $\text{Total Amount To Recover} - \text{Total Amount To Pay} < 0$ , a new bank account transaction is generated with **source** account = Reconciliation Account and **destination** account = Settlement Account, and a payment is generated for the invoice.

When the payments are approved, the invoice's status becomes **Paid**.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: False

## ThirdPartyRole

It contains the list of allowed roles to choose from in the third-party agreement form.

Module that uses the system parameter: Banking Product

Parameter type: Text

Default value: Merchant, Insurer, Broker, Agent

## Unusage

It specifies the commission for not using the funds. The commission type used for Credit Facility accrual daily process.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity: CommissionType

Default value: False.

## Usage

It specifies the commission for usage of funds. The commission type used for Credit Facility accrual daily process.

Module that uses the system parameter: Loan Admin

Parameter type: Lookup. To entity: CommissionType

Default value: Commission Usage Monthly

## UseCF

It specifies whether your installation uses the Credit Facility module or not.

- For True value, the Credit Facility module is used, the **Credit Facility** menu item is displayed within the Loan Management

Operational menu, and the credit facility features are available in the dashboards.

- For `False` value, the Credit Facility module isn't used, the **Credit Facility** menu item is not displayed within the Loan Management Operational menu, and the credit facility features are not available in the dashboards.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: `True`

## UseContaminationForDPDCategory

Loan classification works by risk contamination at the customer and the group levels. This means that if a loan contract belonging to a customer is classified as one of a higher risk due to delays in the repayment process, all the other loans of the customer and of the group where the customer is a member are further classified into that high-risk classification. Read more about loan classification in [this dedicated page](#).

This parameter specifies whether Loan Management should use the risk contamination for loan classification or not.

- For `True` value, risk contamination is used for loan classification, thus one unpaid contract affecting all the loan contracts of that customer.
- For `False` value, risk contamination is not used for loan classification, thus unpaid contracts don't affect other loan contracts of the same customer.

The parameter affects only the [EOD](#) and [SOD](#) jobs.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True

## UseExternalProcessing

It specifies whether the requests generated in Loan Management are sent for processing outside of the platform, for example through Camel async engine, or within the platform, through jobserver.

- For `True` value, the requests are sent for processing outside of the platform, thus improving the platform's overall performance through parallel processing.
- For `False` value, the requests are processed within the platform, through jobserver.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True

## UseGLModule

It specifies whether your installation uses the Subledger module or not. The Subledger module comes within a different digital asset than Loan Management, thus its use is optional.

- For `True` value, the GL module is used and the **GL Settings** tab is displayed at product service configuration level.
- For `False` value, the GL module is not used and the **GL Settings** tab does not display at product service configuration level.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: True

## UseTPM

It specifies if the Distribution Management package is installed on your system. If UseTPM = True, the system triggers the queueing of the transactions based on their contract and event ids. Also:

- For True value, the Distribution Management related features are available in the dashboards.
- For False value, the Distribution Management related features are not available in the dashboards.

Module that uses the system parameter: Loan Admin

Parameter type: Boolean

Default value: False. It is automatically updated to True when the Distribution Management package is installed.

## Managing Loan Management System Parameters

### IMPORTANT!

You must have the `system_administrator` user right to view and manage the Loan Management system parameters.

In order to manage the system parameters used by your FintechOS Loan Management installation, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click **Loan Management System Parameter** menu item to open the **Loan Management System Parameters List** page.

## CORE BANKING SYSTEM PARAMETERS LIST

<input type="checkbox"/>	Name	Module	Is System	Parameter Value	General Description
Q	Q	Q	(All) ▾	Q	Q
	DaysBeforePurge	Loan Admin	<input checked="" type="checkbox"/>	30	This parameter specifies the default number of days that a reco...
	DaysFutureInstallmentsReport	Loan Admin	<input checked="" type="checkbox"/>	15	Parameter created for the Future Installments report. The report...
	DaysPastDueInstallmentsRep...	Loan Admin	<input checked="" type="checkbox"/>	25	Parameter created for the Past Due Installments report. The rep...
	DefaultIntervalLimitsReport	Loan Admin	<input type="checkbox"/>	30	Default Interval for Limits Report - in months
	DefaultSalesChannelAPI	Loan Admin	<input checked="" type="checkbox"/>	9f5d9234-a2ef-42d9-...	Represents the default sales channel for contracts defined via A...

On the **Loan Management System Parameters List** page, you can add new system parameters or search, edit, and delete existing ones.

**IMPORTANT!**

You can't delete parameters marked as **Is System** or edit anything else except their value.

## Creating Loan Management System Parameters

Follow these steps to create new system parameters to be used with Loan Management:

1. Click **Insert** button on the **Loan Management System Parameters List** page to display the **System Parameter** page.
2. Fill in the following fields:

System Parameter

## Core Banking System Parameter

Name

CustomerToContractDirectDebitSettlementAcc

Is System



Module

Loan Admin

Parameter Type

Bool

Parameter Value



General Description

Handles the change on customer contracts once the direct debit settlement acc attribute on customer level is switched true/false.  
 If CustomerToContractDirectDebitSettlementAcc param = false, the changes from customer level, for direct debit settlement, do not impact current contracts, but only manual unlinked repayment notifications.  
 If CustomerToContractDirectDebitSettlementAcc param = true, the changes at customer level, for direct debit settlement, impact all current contract/customer notifications.

- **Name** - Enter a suggestive name for the parameter.
  - **Is System** - Select the checkbox to specify that the parameter cannot be deleted or edited, except its value. Leave the checkbox empty if this parameter can be changed or deleted.
  - **Module** - Select the Loan Management module that uses the system parameter.
  - **General Description** - Enter a detailed description for the system parameter.
  - **Parameter Type** - Select the data type of the parameter. Possible values: Text, Date, Date Time, Invariant Date, Whole Number, Numeric, Option Set and Entity.
3. Fill in the rest of the fields, depending on the selected data type:
- **Entity** - For Lookup parameter type, select the entity from where you need to pick a record as parameter value.
  - **Option Set** - For Option Set parameter type, select the option set from where you need to pick a value as parameter value.
  - **Parameter Value** - Enter the value of the default parameter. Depending on the selected parameter type, you can either enter a value, select the checkbox or select record:
    - For Text, Date, Date Time, Invariant Date, Whole Number, Numeric parameter types, enter the desired value taking in consideration the data type's format.
    - For Boolean parameter types, select the checkbox to specify a True value, or deselect for a False value.
    - For Lookup parameter type, select the desired record from the previously selected entity that acts as parameter value.
    - For Option Set parameter types, select the desired value from the previously selected option set that acts as parameter value.



4. Click the **Save and Reload** button.
5. Make sure you create scripts that actually use the new parameter, to instruct Loan Management to perform the tasks you wish.

## Transaction Types Used in Loan Management

Any transfer of funds between two bank accounts is recorded as a transaction. There are different types of transactions used in the financial world.

You can manage the transaction types in the FintechOS Portal's **Admin Configurations** -> **Transaction Type** or **General Ledger Configurations** -> **Transaction Type** menu. See more details about managing transaction types in the [SubledgerUser Guide](#).

Before being approved and used within contracts, each banking product must have its allowed transaction types specified in the **Allowed Transactions** section of its [product service configuration](#).

## Predefined Transaction Types

You can use the following transaction types are predefined in Loan Management processes:

- **Accruals and Provisions** - It represents the funds set aside to cover future expenses. A provision is aimed at covering a probable future expense, or reduction in the value of an asset. An accrual is a type of provision where revenue or expenses are recorded when a transaction occurs rather than when payment is received or made. Can't be purged.
- **Agreement** - It represents a binding contract between the bank and a third-party entity (agent, broker, insurer, etc.) to formalize an agreement to financially compensate the third-party for the intermediation of selling banking products or services to customers, or

compensate the bank for the inter-mediation of selling the third-party's products or services to customers, and to compensate the bank for managing the contract with the third-party. Can be purged.

- **Deposit Liquidation** - It represents the way of closing the deposit account, so the entire amount is transferred in the current account and the deposit account is closed. If the liquidation occurs at the maturity date, the interest will also be paid. If the liquidation occurs on any other day except the maturity date, the customer will receive the sight interest (if a sight interest is configured). Can't be purged.
- **Disbursement** - It represents the actual delivery of funds from a bank account to the customer. The repayment schedule gets calculated or recalculated. Can be purged.
- **DownPaymentAndFee** - It represents a "payment in" operation type transaction, that can be used when instrumenting a payment at contract approval, for down-payment and fees. Can't be purged. Not used at the moment. It can be used for Buy Now Pay Later products-based contracts, to record the first scheduled payment and the front-end commissions and fees, as a copy of the Top-Up transaction on the settlement account.
- **Early Repayment** - It represents the early return of funds previously borrowed from a lender. The repayment schedule is updated. Can be purged.
- **Early Termination Deposit** - It represents the way of closing the deposit account applicable when the deposit is terminated before schedule. Can be purged.
- **Interest Capitalization** - It represents the addition of the unpaid interest value to the principal balance. Can't be purged.
- **Loan Contract** - It represents a binding contract between two or more parties to formalize a loan process. Can be purged.
- **Overdraft Payment** - It represents an amount of money that a customer with a bank account is temporarily allowed to owe to the bank. Can't be purged.

- **Payment Deposit** - It represents an amount of money paid into an account as part of a payment schedule. Can't be purged.
- **Payment Holiday** - It represents taking a break of any number of installments for the generated schedule. Can be purged.
- **Repayment** - It represents the act of paying back money previously borrowed from a lender by manually repaying an installment from the schedule. Can't be purged.
- **Repayment Notification** - It represents a notification sent for a repayment. At the due date of every installment, an automatic notification is generated by Loan Management. Can't be purged.
- **Reschedule Overdues** - It represents an operation where overdue installments are merged to the following installments and they are no longer collecting penalties. The repayments schedule gets updated. Can be purged.
- **Reschedule Debt** - It represents an operation that updates the balance with the amount rescheduled. Can't be purged.
- **Returned Amount or Goods** - It represents the transaction through which a customer returns all or part of a loan or mortgage in a short while after contract creation, if the banking product's service configuration was defined to allow such transactions, and the commissions already paid by the customer as front-end fees marked as returnable are paid back. This transaction type only accepts Return Fee commission types. Upon transaction approval, a new contract version is automatically created. Can be purged.
- **Third-Party Invoice** - It represents the invoice through which the amounts automatically calculated based on an agreement are recorded in Loan Management.
- **Top-Up Account** - It represents adding amounts to the account before the value drains down to zero. Can be purged.
- **Transfer between my bank accounts** - It represents the process of moving funds between the same customer's bank accounts. Can be purged.

- **Withdraw** - It represents removing funds from a bank account. Can be purged.
- **WriteOff** - It represents a way of writing off the remaining amounts for non-performing loans. Can't be purged.

### IMPORTANT!

If a transaction type is marked as an automatic transaction (Is Automatic Transaction = True), then that transaction type cannot be selected in the **Events** page when creating contract events. Check the [SubledgerUser Guide](#) for more information about defining transaction types.

The transaction types that cannot be purged cannot be deleted from the system. Their **To Be Purged** field within the [Transaction Type](#) page is marked as False, cannot be edited and is hidden.

For each transaction type that can be purged, Loan Management displays a tab in the [Records To Be Purged dashboard](#) only if their **To Be Purged** field is marked as True.

Read about which transaction types are typically used for each type of banking products in the [product service configuration documentation](#).

## Term Loan Contracts-Specific Transactions

When you add events for contracts created based on term loan banking products, the following transaction types can be selected, assuming that they were added previously at product service configuration level: **Disbursement, Early Repayment, Payment Holiday, Repayment Notification, Reschedule Overdues, Reschedule Debt, WriteOff.**

## Current Account Contracts-Specific Transactions

When you add events for contracts created based on current account banking products, the following transaction types can be selected, assuming that they were added previously at product service configuration level: **Top-Up Account, Transfer between my bank accounts, Withdraw.**

**NOTE**

The transactions can be performed only in the same currency.

## Transaction Fees

Some transactions have a fee collected at the event validation for each contract. For these transactions, repayment notifications for those fees are automatically generated when an event gets to the **Approved** status. For Early Repayment transaction there is a repayment fee, and for Payment Holiday transactions there is a payment holiday fee. These fees are automatically selected from the banking product.


When defining the transaction type, you can select the commission type for the fee:

**EDIT TRANSACTION TYPE**

Settings

Name Early Repayment	Transaction Code ER	Process Type EarlyRepay...	Edit Form FTOS_CB_Ev...	Transaction Operation Type Repayment...	Is System Transaction <input type="checkbox"/>
Is Automatic Transaction <input type="checkbox"/>	Real Time Process <input type="checkbox"/>	Only One Draft <input checked="" type="checkbox"/>	Generate New Contract Version <input checked="" type="checkbox"/>	<b>Commission Type</b> Repayment Fee	Return Commission Type 
Is Clawback Transaction <input checked="" type="checkbox"/>					

Let's say your contract uses a banking product that has a Repayment Fee attached to it.

 **Fees**

**Fees are**

Repayment Fee ⓘ is 4 % over Financed Value

Loan Management uses that fee for collection at the event level, for example 4% out of 400 USD, thus the customer must pay 416 USD in order to make an early repayment. This amount is notified at the approval of the event.

STATUS: VED		TRANSACTION NUMBER: ECB 1718	
Contract	2690 OL	Customer	LeiaS
Transaction Type	Early Repayment	Currency	USD
Event Date	22/06/2021	Event Value	416
<b>REPAYMENT VALUES</b>		Keep Contract Period	<input checked="" type="checkbox"/>
Repayment Principal Amount	400	Interest Value	0
Charge Fee	RepaymentFee USD	Fee For Repayment	16
Repayment Fee Percent	4	Future Installments No	12
Other Fees Total Value	0		

For a payment holiday that affects future installments, only the payment holiday fee gets notified.

The transaction types used for loan contracts that collect a fee at event approval are the following:

- **Payment Holiday** transactions, with an associated commission type of **Payment Holiday Fee**.
- **Reschedule Overdues** transactions, with an associated commission type of **Repayment Fee**.
- **Early Repayment** transactions, with an associated commission type of **Repayment Fee**.

#### NOTE

Disbursements don't have this setup for collecting a fee at event approval.

The Loan Management system parameter `ManualRepaymentFee`, having a default value `False`, is used mostly for early repayment.

## System Parameter

### Core Banking System Parameter

Name		Is System
<input type="text" value="ManualRepaymentFee"/>		<input checked="" type="checkbox"/>
Module	Parameter Type	
<input type="text" value="Loan Admin"/>	<input type="text" value="Bool"/>	
Parameter Value		
<input checked="" type="checkbox"/>		
General Description		
<p>false =&gt; Banking Product has only one Repayment Fee commission type on Commission List          true =&gt; show <u>commissionId</u> (lookup FTOS_BP_Commission) with type Repayment Fee on Commission List.          This parameter affects the ContractEvent page.</p>		

### IMPORTANT!

When the value of the ManualRepaymentFee parameter is False, the early repayment fee is not negotiable, and the fee values are selected exactly as they are defined in the banking product.

When the value of the ManualRepaymentFee parameter is **True**, the early repayment fee is negotiable, and the credit officer that is operating the contract event can change the default value that is coming out of the banking product. If the fee is a percentage, then they can change the fee percentage or the fee value. If the fee is not a percentage, then they can change only the fee value. Other related values are automatically updated.

In the example below, having a ManualRepaymentFee parameter set on True, Loan Management allows changing the default repayment fee percentage of 3.5% out of 500 USD to 10%, resulting in a fee for repayment amount of 50 USD.

The screenshot displays a 'Transaction Details' form with the following sections:

- Event:** Contract (2090 OL), Transaction Type (Early Repayment), Event Date (23-06-2021).
- Customer:** Lease, Currency (USD), Event Value (930.27).
- REPAYMENT VALUES:** Remaining Principal At Date (1,800), Repayment Principal Amount (500), Charge Fee (0), Repayment Fee USD (10), Repayment Fee Percent (0), Other Fees Total Value (0), Future Principal For Installment (91.67).
- UNPAID INFO:** Unpaid Amount On Contract (1).
- Additional Fields:** Keep Contract Period (checked), Interest Value (0.27), Fee For Repayment (80), Future Installments No (12), Unpaid Amount For Customer (1).
- Table:** A table with columns: No., Due Date, Remaining Value, Interest, Principal, Life Insurance, Total Installment. It contains 4 rows of data.

## Real-Time or Queued Transaction Processing

The transactions made on bank accounts can be processed in real-time, when the transaction is approved, or at a later time, after being placed in a queue and taken for processing by a specialized scheduled job. The real-time processing depends on the **Real Time Process** checkbox being selected or not at every transaction type's level:

The 'EDIT TRANSACTION TYPE' form includes the following fields and settings:

- Name:** Accruals and Pr...
- Transaction Code:** AP
- Process Type:** Accruals
- Edit Form:** FTOS\_CB\_Co...
- Transaction Operation Type:** Others
- Is System Transaction:** ☒
- Is Automatic Transaction:** ☒
- Real Time Process:** ☒ (highlighted with a green box)
- Only One Draft:** ☐
- Generate New Contract Version:** ☐
- Commission Type:** (empty)
- Return Commission Type:** (empty)
- Is Clawback Transaction:** ☒

Each time a transaction is performed on a bank account, the system verifies its transaction type's **Real Time Process** field. If the value is True, then the transaction is processed right away. If the value is False, then the transaction is inserted as a record in the `BankAccountTransactionQueue` entity, with the `isProcessed` attribute set to False and `isWithError` set to False. The [Bank Account Transaction Queue Processing](#) scheduled job runs every 1 minute, taking the top 10 records from the entity



with the attribute `isProcessed = False`, and processing the transactions. Any errors encountered on processing are logged in the `errorMessage` attribute. The **Bank Account Transaction Queue Cleanup** scheduled job runs once each night and cleans up the already processed transaction records with `isWithError = False`.

As a user with admin rights, you can view the transactions within the queue in the **Bank Account Transaction Queue** menu:

BANK ACCOUNT TRANSACTION QUEUE									
<a href="#">Refresh</a>									
<input type="checkbox"/>	ContractNo	CustomerName	EventType	EventNo	EventDate	EventAmount	IsProcessed	IsWithError	ErrorMessage
	Q	Q	Q	Q	Q	Q	(All)	(All)	Q
	6124	PinziApprovals	Disbursement	ECB4666	31/03/2022 12:20	9,500.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6125	PinziApprovals	Disbursement	ECB4667	31/03/2022 12:32	10,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6135	PinziApprovals	Repayment Notifi...	37383	31/03/2022 13:42	200.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6135	PinziApprovals	Disbursement	ECB4668	31/03/2022 13:42	5,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6136	PinziApprovals	Repayment Notifi...	37384	31/03/2022 13:44	120.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<div> <span>5</span> <span>10</span> <span>20</span> </div> <div> <span>1</span> <span>2</span> <span>3</span> <span>4</span> <span>5</span> <span>...</span> </div>									

## Bank Account Transaction Queue

Loan Management processes transactions made on bank accounts in real-time, when the transaction is approved, or at a later time, after placing the transactions in a queue and being taken for processing by a specialized scheduled job. The real-time processing depends on the **Real Time Process** checkbox being selected or not at every transaction type's level:

### EDIT TRANSACTION TYPE

#### Settings

Name Accruals and Pr...	Transaction Code AP	Process Type Accruals	Edit Form FTOS_CB_Co...	Transaction Operation Type Others	Is System Transaction <input checked="" type="checkbox"/>
Is Automatic Transaction <input checked="" type="checkbox"/>	Real Time Process <input checked="" type="checkbox"/>	Only One Draft <input type="checkbox"/>	Generate New Contract Version <input type="checkbox"/>	Commission Type 	Return Commission Type 
Is Clawback Transaction <input checked="" type="checkbox"/>					

Each time a transaction is performed on a bank account, the system verifies its transaction type's **Real Time Process** field. If the value is True, then the transaction is processed right away. If the value is False, then the transaction is inserted as a record in the BankAccountTransactionQueue entity, with the isProcessed attribute set to False and isWithError set to False. The **Bank Account Transaction Queue Processing** scheduled job runs every 1 minute, taking the top 10 records from the entity with the attribute isProcessed = False, and processing the transactions. Any errors encountered on processing are logged in the errorMessage attribute. The **Bank Account Transaction Queue Cleanup** scheduled job runs once each night and cleans up the already processed transaction records with isWithError = False.

**NOTE**

You can view the transactions within the queue if you have the **Loan Admin Officer** security role.

To view the bank account transactions within the queue, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click the **Bank Account Transaction Queue** menu to open the **Bank Account Transaction Queue** page.

**BANK ACCOUNT TRANSACTION QUEUE**

<input type="checkbox"/>	ContractNo	CustomerName	EventType	EventNo	EventDate	EventAmount	IsProcessed	IsWithError	ErrorMessage
<input type="checkbox"/>	Q	Q	Q	Q	Q	Q	(All) ▾	(All) ▾	Q
	6124	PinziApprovals	Disbursement	ECB4666	31/03/2022 12:20	9,500.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6125	PinziApprovals	Disbursement	ECB4667	31/03/2022 12:32	10,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6135	PinziApprovals	Repayment Notifi...	37383	31/03/2022 13:42	200.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6135	PinziApprovals	Disbursement	ECB4668	31/03/2022 13:42	5,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	6136	PinziApprovals	Repayment Notifi...	37384	31/03/2022 13:44	120.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5 10 20

1 2 3 4 5 ...

Here you can view all the bank account level transactions that were placed in the queue, no matter their processing status. The columns of the table contain the following information:

- **Contract No** - The contract on which the transaction was performed.
- **Customer Name** - The name of the customer on whose contract the transaction was performed.
- **Event Date** - The date when the transaction event occurred.
- **Event Type** - The type of the transaction event.
- **Event No** - The number of the transaction event.
- **Event Amount** - The amount of the transaction event.
- **Is Processed** - The checkbox specifies whether the transaction was already processed by the Bank Account Transaction Queue Processing scheduled job or not.
- **Is With Error** - The checkbox specifies whether there was an error when processing the transaction or not.
- **Error Message** - The text of the error encountered when processing the job if such an error was encountered during processing.

On the **Bank Account Transaction Queue** page, you can search for a specific transaction by filling in any or all the column headers of the displayed records list.

## Bank Account Transaction Configurations

Transactions between bank accounts generate debit operations on a source bank account and credit operations on a destination bank account. The bank accounts can be reconciliation accounts (accounts defined at the product service configuration level serving as source for disbursements or accounts defined at the transaction fee level for collecting fees), user bank accounts (current, deposit or credit accounts), or external bank accounts (accounts from other banks).

In Loan Management, the transactions between bank accounts are created in Draft status. When you change a transaction's status changes to Approved, Loan Management automatically generates bank account operations: Debit Operations for

the Source Account, and Credit Operations for the Destination Account. It also updates the balance for the source or the destination accounts if they are bank accounts defined within Loan Management.

You can define fees to be added to bank account transactions. Using fee lists, you can attach fees with specified values to each bank account transaction type. The lists can further be filtered. When you select a transaction operation type on a bank account transaction, Loan Management identifies the fee list and fee values and applies them considering the data of the transaction. Loan Management creates operations of debit and credit for both transaction value and fees. The number of credit and debit operations created by Loan Management is managed through the [BankAccountTransactionFeeMarkDown](#) system parameter.

You can configure the bank account transaction operations and fees by managing the records within FintechOS Portal's dedicated menu, **Admin Configurations > Bank Account Transactions**.

This page contains a series of topics that assist you in configuring how Loan Management manages transactions between bank accounts:

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<a href="#">Transaction Types Covered Through Bank Account Transaction Operation Types in Loan Management</a>	100
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<a href="#">Transaction Operation Type</a>	106
<a href="#">Transaction Fee</a>	110
<a href="#">Transaction Fee List</a>	112

## Transaction Types Covered Through Bank Account Transaction Operation Types in Loan Management

Loan Management currently covers within its automated processes the following [transaction types](#) through the bank account transaction operation types:

Transaction	Code	Usage	Generates Accounting Entry	Is Return Transaction	Is System Transaction	Is Automatic	New Contract Version	Source Entity	Bank Account Transaction Operation Type
Disbursement	DSB	Loan Account	yes	no	no	no	no	Contract Event	Disbursement
Revert Disbursement	RDSB	Loan Account	yes	no	no	yes	no	Contract Event	Disbursement
Repayment	RP	Loan Account	yes	no	no	yes	no	Payment	Payment In
Top-Up Account	TPCA	Current Account	yes	no	no	no	no	Contract Event	Payment In
Payment Deposit	PD	Deposit Account	yes	no	no	yes	no	Payment Notification	Payment In
Withdraw	W	Current/Deposit Account	yes	no	no	no	no	Contract Event	Payment Out

Transaction	Code	Usage	Generates Accounting Entry	Is Return Transaction	Is System Transaction	Is Automatic	New Contract Version	Source Entity	Bank Account Transaction Operation Type
Transfer between my bank accounts	TR	Current Account	no	no	no	no	no		Payment Out
Early Termination Deposit	R P D	Deposit Account	yes	no	no	yes	no	Payment Notification	Payment Out
Revert Transfer between my bank accounts	R TR	Current Account	yes	no	no	yes	no	Contract Event	Payment Out
Deposit Liquidation	D L Q	Deposit Account	yes	no	no	no	no	Contract Event	Payment Out
Reschedule Overdues	R O	Loan Account	no	no	no	no	yes		RecoverDebt
Repayment Notification	R N	Loan Account	yes	no	no	yes	no	Repayment Notification	RepaymentContract

Transaction	Code	Usage	Generates Accounting Entry	Is Return Transaction	Is System Transaction	Is Automatic	New Contract Version	Source Entity	Bank Account Transaction Operation Type
Early Repayment	ER	Loan Account	yes	no	no	no	yes	Contract Event	RepaymentContract
Overdraft Payment	ODP	Loan Account	yes	no	no	no	no	Contract Event	RepaymentContract
Returned Amount or Goods	RG	Loan Account	yes	yes	no	no	yes	Contract Event	RepaymentContract
Write Off	WO	Loan Account	no	no	no	no	no	Contract Event	WriteOff

Usually, these transactions are operated behind the scenes, on the server-side, on a higher-order entity like Contract (once a credit contract changes its state to Approved for auto disbursement) or ContractEvent (when the initiated event of transferring money from a current bank account to a deposit bank account of the same user is approved and the selected Transaction Type = Transfer between my bank accounts).

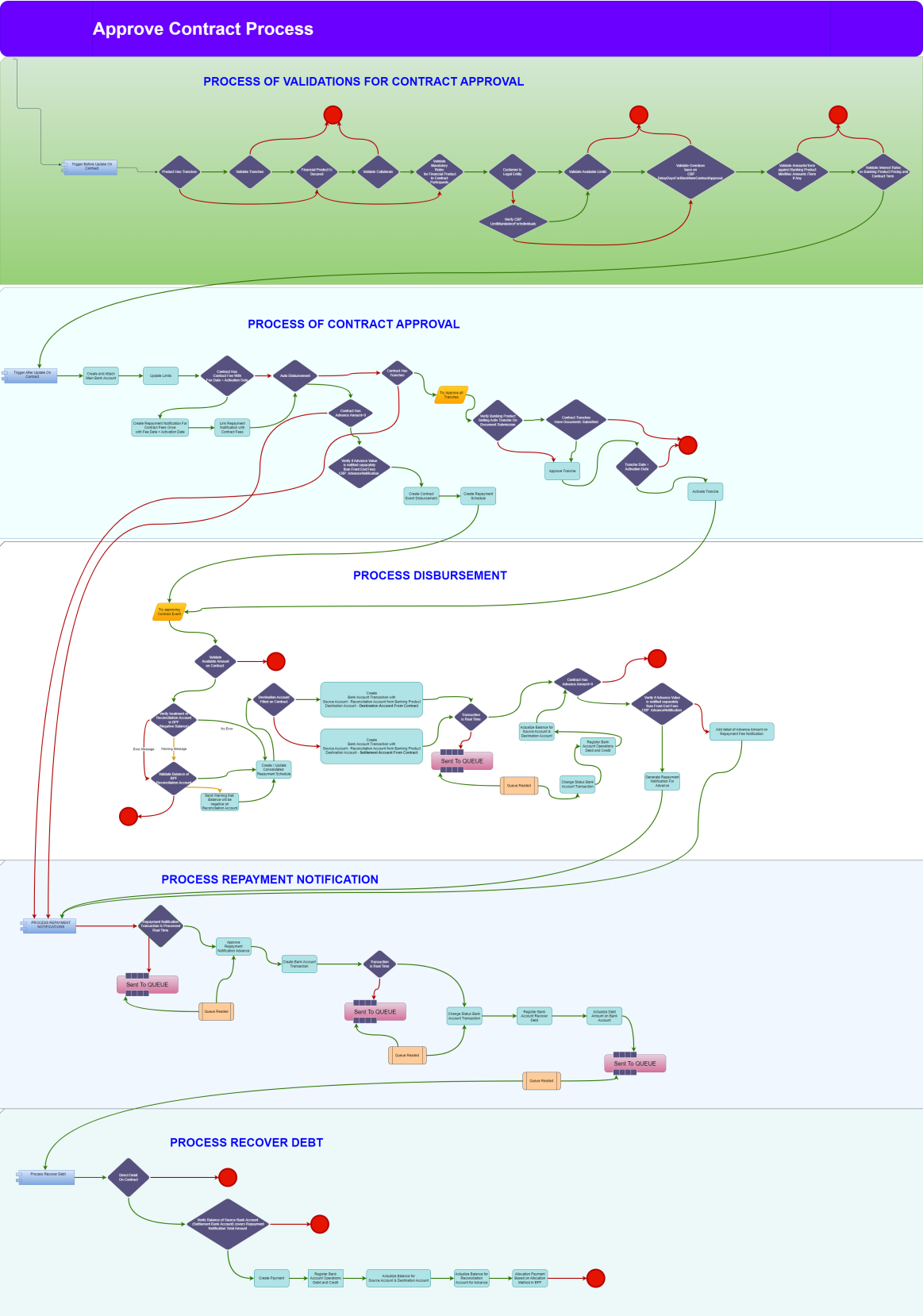
## Loan Contract Approval Process Flow

Loan contracts in Loan Management go through a series of processes during their life time, from contract approval to full recovery of debts. The following transaction types are illustrated in the below diagram:

- **Loan Contract** - This is the transaction performed when the contract is being validated for approval and actually approved;
- **Disbursement** - This is the transaction performed when the funds are actually delivered from a bank account to the customer;
- **Repayment Notification** - This is the transaction performed when a repayment is generated.
- **Repayment** - This is the transaction performed when the funds are actually collected from the customer and the notification is recovered.

If no external triggers are put in place (such as an early repayment or a return of goods event), then this is the flow applicable for each loan contract in Loan Management. The orchestration of the processes is performed either internally, through Job Server (see [Jobs](#) page) or through [external request processing](#).





## Transaction Operation Type

A bank account transaction is any amount that moves in or out of a bank account. There are different types of operations that affect bank account transactions. Loan Management uses the following types of bank account transaction operations:

- **Payment** – usual transaction operation for a bank account transaction;
- **PaymentIn** – transaction operated into a bank account;
- **PaymentOut** – transaction operated from a bank account;
- **RepaymentContract** – transaction operation type used when a contract repayment is registered. In this case, Loan Management debits the current account of the customer and credits the reconciliation account allocated to the banking product. This is an internal type of bank account transactions operation.
- **Disbursement** – transaction operation type used when a credit contract disbursement is registered. In this case, Loan Management debits the reconciliation account allocated to the banking product and credits the current account of the customer. This is an internal type of bank account transactions operation.
- **RecoverDebt** – transaction operation type used for direct debit in case of loan credit. Loan Management automatically registers a debt for an installment for which the amount in the current account associated to the loan credit doesn't cover the debt amount. This is an internal type of bank account transactions operation.

To manage bank account transaction operation types in Loan Management, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Expand **Bank Account Transaction** menu and click **Bank Account Transaction Operation** menu item to open the **Bank Account Transaction Operations List** page.

BANK ACCOUNT TRANSACTION OPERATIONS LIST	
<input type="checkbox"/>	Name
<input type="text"/>	
<input type="text"/>	Agreement
<input type="text"/>	Disbursement
<input type="text"/>	Others
<input type="text"/>	Payment
<input type="text"/>	PaymentIn
<input type="text"/>	PaymentOut
<input type="text"/>	RecoverDebt
<input type="text"/>	RepaymentContract

On the **Bank Account Transaction Operations List** page, you can add new bank account transaction operation types or search, edit, and delete existing ones.

## Creating Bank Account Transaction Operation Types

Follow these steps to create new bank account transaction operation type records:

1. Click **Insert** on the **Bank Account Transaction Operations List** page to display the **Transaction Operation Type** page.
2. Fill in the following fields:

Transaction Operation Type

Main Information

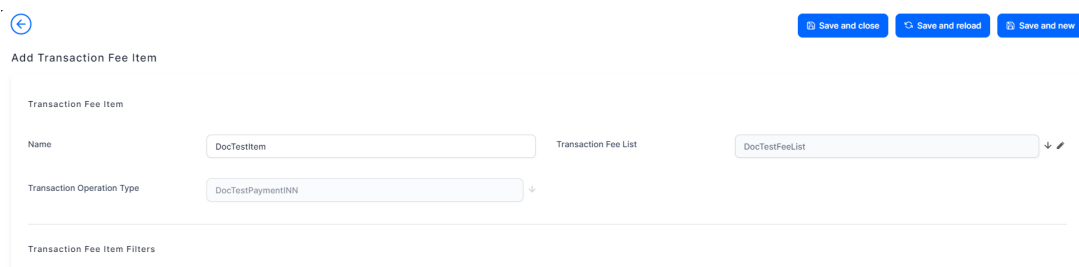
Name	code	Is Payment	Is Top Up	Allow Negative Bank Account Balance
PaymentIn	PYMi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- **Name** - Enter the name of the bank account transaction operation record.
  - **Code** - Enter a code for this transaction operation record.
  - **Is Payment** - Select this checkbox if the bank account transaction operation record represents a payment within Loan Management.
3. If you marked **Is Payment** as True, then fill in these newly displayed fields:
    - **Is Top-Up** - Select this checkbox if the bank account transaction operation record represents a top-up type payment. This field is displayed only if the **Is Payment** field is selected.
    - **Allow Negative Bank Account Balance** - Select this checkbox if the bank account allows the existence of a negative balance. This field is displayed only if the **Is Payment** field is selected.

4. Click the **Save and Reload** button.

In the **Transaction Fee Items** section displayed after saving the record, you can attach multiple transaction fee items, each serving a different purpose through filters (fees for payment to a specific country, fees made in a specific currency, fees for transfers having a certain minimum or maximum amount). Note that fees can also be combined in fee lists. You can add as many items as you need.

5. To add a new item, click the **Insert** button within the **Transaction Fee Items** section.
6. On the displayed **Add Transaction Fee Item** page, fill in the following fields:



- **Name** - Enter the name of the transaction fee item record.
  - **Transaction Fee List** - Select the transaction fee list associated to the transaction fee item.
  - **Transaction Operation Type** - Automatically completed with the bank account transaction operation record being edited and it cannot be changed.
7. Click the **Save and Reload** button.  
In the **Transaction Fee Item Filters** section displayed after saving the record, you can add filters for the transaction fee item. You can add as many item filters as you need.
  8. To add a new item filter, click the **Insert** button within the **Transaction Fee Item Filters** section.
  9. On the newly displayed **Add Transaction Fee Item Filter**, fill in the following fields to specify the filtering criteria for the transaction fee item filter:

**Transaction Fee Item Filter**

**Filter**

Currency

**Text Value**

**Value**

**Until Value**

**Date**

**Until Date**

**OptionSet**

**Filter Entity**

FTOS\_CMB\_Currency

**Description**

FTOS\_CMB\_Currency IN USD

- **Filter** - Select the filter for the transaction fee item filter.
- **Description** - Enter a description for the transaction fee item filter.

10. Optionally, fill in the following fields:

- **Text Value** - Enter the text value of the filter, if applicable.
- **Value/ Until Value** - Enter the starting/ ending value of the interval for the filter if applicable.
- **Date/ Until Date** - Enter the starting/ ending date for the filter if applicable.
- **OptionSet** - This field is automatically completed with the option set of the filter previously selected in the **Filter** field if that filter is of option set type.
- **Filter Entity** - This field is automatically completed with the entity of the filter previously selected in the **Filter** field if that filter is of entity type.

11. Click the **Save and Close** button.

## Transaction Fee

You can define different fees to be applied to bank account transactions. Using [fee lists](#), you can attach fees with specified values to each bank account transaction operation type. When you select a transaction operation type on a bank account transaction, Loan Management identifies the fee list and fee values and applies them considering the current date of the transaction.

To manage transaction fee records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Expand **Bank Account Transaction** menu and click **Transaction Fee** menu item to open the **Transaction Fees List** page.

### TRANSACTION FEES LIST

<input type="checkbox"/>	Name
	Q
	TranFeeOne
	TranFeeThree
	TranFeeTwo

On the **Transaction Fees List** page, you can add new transaction fee records or search, edit, and delete existing ones.

## Creating Transaction Fee Records

Follow these steps to create new transaction fee records:

1. Click **Insert** on the **Transaction Fees List** page to display the **Add Transaction Fee** page.

2. Fill in the following fields:

ADD TRANSACTION FEE

**Main Information**

<b>Code</b> <input type="text" value="TFFOUR"/>	<b>Name</b> <input type="text" value="TranFeeFour"/>	<b>Currency</b> <input type="text" value="EUR"/>	<b>BankAccount for Fee Collection</b> <input type="text" value="Reconciliati..."/>
--	---	---	---

#### Transaction Fee Values

- **Code** - Enter a code for this transaction fee record.
  - **Name** - Enter the name of the transaction fee record.
  - **Currency** - Select the currency of the fee.
  - **Bank Account for Fee Collection** - Select the bank account for the fee collection.
3. Click the **Save and Reload** button.  
You can manage the values of the transaction fee within the newly displayed **Transaction Fee Values** section.
  4. Click **Insert** within the **Transaction Fee Values** section to add a new value for the fee. The **Add Transaction Fee Value** page is displayed.
  5. Fill in the following fields:

ADD TRANSACTION FEE VALUE

**Transaction Fee Value**

<b>Fee</b> <input type="text" value="TranFeeOne"/>	
<b>Start Date</b> <input type="text" value="29/07/2022"/>	<b>End Date</b> <input type="text" value="30/07/2022"/>
<b>Transaction Fee Percent</b> <input type="text" value="0"/>	<b>Transaction Fee Value</b> <input type="text" value="1"/>

- **Fee** - Automatically completed with the transaction fee for which you are inserting values.
- **Start Date/ End Date** - Select the interval when the value is active.

- **Transaction Fee Percent** - Enter the percent from the bank account transaction applied as fee value if the value is defined as a percentage.
- OR
- **Transaction Fee Value** - The value of the transaction fee, expressed in the transaction fee currency if the value is not defined as percentage.

6. Click the **Save and Close** button. The new value for the transaction fee is saved.

#### NOTE

You can add as many values as needed, as long as the validity periods of the value don't overlap. The fee values are identified and applied considering the current date of the transaction.

## Transaction Fee List

Loan Management uses lists to group previously defined [transaction fees](#). The transaction fee lists are attached to each bank account transaction type. The lists can further be filtered. When you select a transaction operation type on a bank account transaction, Loan Management identifies the fee list and fee values and applies them considering the current date of the transaction.

To manage transaction fee list records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Expand **Bank Account Transaction** menu and click **Transaction Fee List** menu item to open the **Transaction Fees Lists List** page.



TRANSACTION FEE LISTS LIST

<input type="checkbox"/>	Name
	Q
	TFeeList1
	TFList2

On the **Transaction Fees Lists List** page, you can add new transaction fee list records or search, edit, and delete existing ones.

Creating Transaction Fee List Records

Follow these steps to create new transaction fee list records:

- 1. Click the **Insert** button on the **Transaction Fees Lists List** page to open the **Add Transaction Fee List** page.
- 2. Fill in the name of the transaction fee list record.

ADD TRANSACTION FEE LIST

Main Information

Name

TFList3

Transaction Fees

- 3. Click the **Save and Reload** button.  
A new section, **Transaction Fees**, is displayed after saving the record. You can manage the actual transaction fees of the list within this section.
- 4. Click **Insert existing** in the **Transaction Fees** section to add a new transaction fee to the list.
- 5. In the newly displayed pop-up window, select one or more transaction fees and

click **OK** to attach them to your list.

EDIT TRANSACTION FEE LIST

Main Information

Name

TFList3

Transaction Fees

+ Insert existing

✕ Remove existing

<input type="checkbox"/>	Name
<input type="checkbox"/>	TranFeeThree
<input type="checkbox"/>	TranFeeTwo

- Click the **Save and Close** button. You can add as many transaction fees as needed to your list.

## Jobs

Jobs are automated procedures that perform certain tasks, running at a specific time or on a recurring schedule. Read detailed information about scheduling jobs in the FintechOS Studio User Guide's [dedicated page](#).

Loan Management comes with the following scheduled jobs that perform repetitive banking procedures for the purpose of closing one day and opening the next one, or for processing or cleaning up queued transactions:

### Start Of Day (SOD) Job

The **Loan Management Start Of Day** job is made up of a series of services, which are run one by one each day before the banking day is initiated.

The following services run as part of this job, in this order:

- Start Job Log**

If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the `ScheduleJobLog` entity, containing information about the job starting time.

2. **Disburse Contracts With Approved Tranches In Current Date**  
The service performs the disbursements of contract tranches approved on the current date (the day that is about to be opened/ initiated).
3. **Set Limit Available Amount Due To FX Change**  
The service recalculates the available amount on limits depending on the currency's exchange rate on a specific day. The service does not take into consideration past versions of the limit up to a given day. It only takes into consideration the current limit version and uses those results for calculating the limit available value.
4. **Set Collateral Available Amount And Contract Collateral Value Due To FX Change**  
The service recalculates the available amount on collaterals and the collateral value on contracts depending on the currency's exchange rate on a specific day.
5. **Set Contract Amount (Overdraft) Due To Plan Due Date Reached (Increase/ Decrease)**  
The service increases/ decreases the limit amount on overdraft contracts that reached their reevaluation plan due date.
6. **Set Credit Facility Amount Due To Plan DueDate Reached (Increase/ Decrease)**  
The service increases/ decreases the limit amount on credit facilities that reached their reevaluation plan due date.
7. **Set Credit Facility Available Amount Due To FX Change**  
The service recalculates the available amount on credit facilities depending on the currency's exchange rate on a specific day.
8. **Set Contract Covenant Status Due To Review Date Reached**  
The service changes the status of covenants on contracts that reached their review date.
9. **Set Contract Category Based on Overdue Days**  
The service changes the category of contracts based on overdue days.
10. **Schedule versioning after stop accrual**  
The service creates new schedule versions for the contracts that were marked for stopping the accrual process calculation. The new version

of the schedule has the Process of Loss reason and all the un-notified installments are updated.

11. **Calculate Accrual For Overdraft Contracts and Current Accounts With Overdraft Contracts**  
The service recalculates the accrual for utilization and for unusage for overdraft contracts and for current account with overdraft contracts.
12. **Calculate Accrual For Credit Facility**  
The service recalculates the accrual for utilization and for unusage for credit facilities.
13. **Calculate Accrual And Provisions For Loan Contracts**  
The service recalculates the accrual and provisions for loan contracts.
14. **Calculate Overdraft Debt to recover**  
The service recalculates the overdraft debt still to recover from contracts.
15. **Calculate Penalties for Contracts and Credit Facility**  
The service recalculates the penalties for contracts and for credit facilities.
16. **Calculate Interests For Deposit Contracts**  
The service recalculates the interests for deposit contracts.
17. **End Job Log**  
The service updates the same record that the **Start Job Log** service inserted within the ScheduleJobLog entity, writing information about the job ending time.

## End Of Day (EOD) Job

The **Loan Management End Of Day** job is made up of a series of services, which are run one by one each day after the banking day is closed.

The following services run as part of this job, in this order:

1. **Start Job Log**  
If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the ScheduleJobLog entity, containing information about the job starting time.
2. **Set Limit Expired**  
The service sets the limits which are about to expire in the current day as Expired.
3. **Set Accrual Amounts on Repayment Schedule for Overdraft Contract and Current Account with Overdraft**  
The service recalculates the accrual for utilization on repayment schedules for overdraft contracts and for current account with overdraft contracts.
4. **Run Recover Debts**  
The service performs the direct debit transactions to recover all debts at that point in process.
5. **Set Accrual Amounts Unusage Commission Values on Repayment Schedule for Contracts**  
The service recalculates the accrual for unusage commissions on repayment schedules for contracts.
6. **Update Expiry Date for Overdraft installment**  
The service updates all the expiry dates for overdraft installments for the current account with overdraft contracts.
7. **Generate Repayment Notifications**  
The service generates the repayment notifications for all the contracts with due amounts on schedule on that day.
8. **Recover Debts After Generate Notification**  
The service performs the direct debit transactions to recover all debts after generating the repayment notifications.
9. **Run Payment Allocation**  
The service performs the payment allocation operations for unallocated or partially allocated payments.

10. **Generate Accounting Entries**  
The service generates the accounting entries for all transactions performed on that day.
11. **Set Limit Available Amount Due To FX Changes**  
The service sets the limit amounts available to all contracts due to exchange rates changes.
12. **End Job Log**  
The service updates the same record that the **Start Job Log** service inserted within the ScheduleJobLog entity, writing information about the job ending time.

## Bank Account Transaction Queue Processing (CB) Job

The **Bank Account Transaction Queue Processing** scheduled job processes all the bank account transactions that were placed in a queue instead of being processed in real-time at transaction approval. Each time a transaction is performed on a bank account, the system verifies its transaction type's **Real Time Process** field. If the value is True, then the transaction is processed right away. If the value is False, then the transaction is inserted as a record in the BankAccountTransactionQueue entity, with the **isProcessed** attribute set to False and **isWithError** set to False. The **Bank Account Transaction Queue Processing** scheduled job runs every 1 minute, taking the top 10 records from the entity with the attribute **isProcessed** = False, and processing the transactions. Any errors encountered on processing are logged in the **errorMessage** attribute.

The following service runs as part of this job, in this order:

1. **Start Job Log**  
If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the ScheduleJobLog entity, containing information about the job starting time.
2. **BankAccountTransactionQueue\_Process**  
The service takes the top 10 records from the bank account transactions queue (the BankAccountTransactionQueue entity)

with the attribute `isProcessed = False`, and processes the transactions. After each processing, the `isProcessed`, `isWithError`, and `errorMessage` attributes are updated.

3. **End Job Log**

The service updates the same record that the **Start Job Log** service inserted within the `ScheduleJobLog` entity, writing information about the job ending time.

## Bank Account Transaction Queue Cleanup (CB) Job

The **Bank Account Transaction Queue Cleanup** scheduled job runs once each night and deletes the [already processed transaction records](#) with the `isWithError` attribute value `False`.

The following service runs as part of this job:

1. **BankAccountTransactionQueue\_Cleanup**

The service deletes the records from the bank account transactions queue (the `BankAccountTransactionQueue` entity) with the attribute `isProcessed = True` and `isWithError = False`.

## Close Contracts (CB) Job

The **Close Contracts** scheduled job closes automatically all contracts with `Automatic Closure = True` and `Real Time Closure = False`, with zero available amount and with no further amounts to be recovered, that have `Balance Off Date` filled in and `Closure Date = Current Date`. The job runs by default at 11:00 PM system time.

The following services run as part of this job, in this order:

1. **Start Job Log**

If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the `ScheduleJobLog` entity, containing information about the job starting time.

2. **CloseContract**

The service closes all contracts with `Automatic Closure = True` and `Real Time Closure = False`, with zero available amount and with no further amounts to be recovered, that have `Balance Off Date` filled in and `Closure Date = Current Date`.

3. **End Job Log**

The service updates the same record that the **Start Job Log** service inserted within the `ScheduleJobLog` entity, writing information about the job ending time.

## Close Contracts RealTime(CB) Job

The **Close Contracts RealTime** scheduled job closes automatically all contracts with `Automatic Closure = True` and `Real Time Closure = True`, with zero available amount and with no further amounts to be recovered. The job runs by default every 5 seconds, between 06:00 AM and 07:59 PM system time.

The following services run as part of this job, in this order:

1. **Start Job Log**

If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the `ScheduleJobLog` entity, containing information about the job starting time.

2. **CloseContractRealTime**

The service closes all contracts with `Automatic Closure = True` and `Real Time Closure = True`, with zero available amount and with no further amounts to be recovered.

3. **End Job Log**

The service updates the same record that the **Start Job Log** service inserted within the `ScheduleJobLog` entity, writing information about the job ending time.

## Run Loan Payment Allocation (CB) Job



The **Run Loan Payment Allocation** scheduled job processes almost in real-time the payment allocation operations for payments with **Unallocated** or **Partially Allocated** statuses. The job runs by default every 5 seconds, between 06:00 AM and 07:59 PM system time.

The following services run as part of this job, in this order:

1. **Start Job Log**

If another SOD or EOD job is not currently running within Loan Management, the service inserts a record into the `ScheduleJobLog` entity, containing information about the job starting time.

2. **Debt\_to\_Payment**

The service processes the payment allocation operations for unallocated or partially allocated payments.

## Auto Process Manual Repayment Notifications (CB) Job

The **Auto Process Manual Repayment Notifications (CB)** scheduled job facilitates the automatic transition of manual repayment notifications from the **Approved** status into **Pending Recover** or **In Recovery** statuses, thus allowing manual notifications to be automatically processed for payment allocation. The job runs by default at 7:00 PM system time.

The following service runs as part of this job:

1. **Auto Process Manual Repayment Notifications**

The service processes the manual repayment notification record in **Approved** status created on the current date of the system, changing their status depending on the direct debit setting at the customer level. If the `Direct Debit Settlement Account` field at the contract level = `True`, then the manual notification's status changes to **In Recovery**, otherwise it changes to **Pending Recover**.

## Async Contract Approval (CB) Job

The **Async Contract Approval (CB)** scheduled job performs all the contract approval-related activities, such as generating a main bank account, updating the contract with the main bank account number, if the `Auto Disbursement = True` then perform the disbursement event, generate a repayment schedule, generate and then process repayment notifications, when the `AsyncContractApproval` Loan Management system parameter is set to True. The job runs by default every 5 seconds.

The following service runs as part of this job:

1. **Async Contract Approval Queue Processing**  
The service processes the records from the `Async Contracts Approval Queue` entity, performing every task related to a contract approval, except the change of business status of the contract to `Approved`, which happened already.

## Async Limit Recalculation Job

The **Async Limit Recalculation** scheduled job performs the limit recalculation for the limit/ customer/ group queued in the `Daily Limit Recalculation Queue` entity, when the `AsyncLimitRecalculation` Loan Management system parameter is set to True. The job runs by default every 10 seconds.

The following service runs as part of this job:

1. **FTOS\_CB\_DailyLimitRecalculationFromQueue**  
The service processes the records from the `Daily Limit Recalculation Queue` entity, performing the limit recalculation for the limit/ customer/ group queued in the entity.

## Process Contracts For Auto WriteOff Job

The **FTOS\_CB\_ProcessContractsForAutoWriteOff** scheduled job automatically performs write-off transactions for non-performing loan contracts, after their maturity day passes and the remaining value on the contract is under the threshold specified at the product service configuration level. You can enable the job to run according to your financial institution's

needs, usually at the end of day.

The following service runs as part of this job:

1. **FTOS\_CB\_ProcessContractsForAutoWriteOff**

The service first identifies the non-performing loan contracts with notified amounts still not recovered. Then, it calculates each contract's maximum value for the write-off transaction as the Remaining Principal (absolute main balance) + Accrued Interest + unpaid values from Repayment Notifications (interest, commissions, penalties, or insurances), and identifies which values are under the write-off threshold defined at the product service configuration level, placing the affected contracts in a processing queue. Lastly, the service processes the queue items and performs write-off transactions for the identified contracts, taking the remaining amount from the specified internal write-off account and crediting the loan's main bank account for the loan principal, respectively the product's self bank account for all the other operation items.

## Security Roles for Loan Management

A security role is a set of privileges and levels of access to various actions/ functions within the FintechOS Platform. Read the [Security Roles topic](#) for detailed information.

Loan Management has a set of predefined security roles specific for banking-related business needs. Financial institutions can use these security roles to grant their employees access rights within its systems. Read the [Users topic](#) for information about associating security roles to users in FintechOS Studio.

You can also create new security roles to fit your financial institution's business needs.

## Predefined Loan Management Security Roles

Loan Management comes with the following predefined security roles that grant specific access rights to the users associated with one or more of these roles to the FintechOS Platform's actions and functions:

- **Loan Admin Officer** - Users with this security role have read, write and authorize access rights to the **Loans** and **Accounting** records in **all modules** of Loan Management within **their organization**.
- **Accounting Read** - Users with this security role have read access rights to the **Accounting** module of Loan Management within **their organization**.
- **Corporate Credit Officer** - Users with this security role have access rights to read and write access rights to the **Contract**, **Contract Version**, **Contract Event**, **Limits**, **Collateral Register**, **Credit Facility** and **Credit Facility Version** records of Loan Management within **their organization**.
- **Retail Credit Officer** - Users with this security role have access rights to read and write access rights to the **Contract**, **Contract Version**, **Contract Event**, **Collateral Type** and **Collateral Register** records of Loan Management within **their organization**.
- **Accounting Officer** - Users with this security role have read and write access rights to the **Accounting** module of Loan Management within **their organization**.
- **Supervisor Risk Officer** - Users with this security role have read access rights to the **Contracts**, **Collateral Register** and **Credit Facility** records of Loan Management within **their organization**, and authorization rights to the **Limits** records, all within **their organization**.
- **Risk Officer** - Users with this security role have read access rights to the **Contracts**, **Collateral Register** and **Credit Facility** records, and write access rights to the **Limits** records of Loan Management within **their organization**.
- **Async Engine Admin** - Users with this security role can access the **DLQ Messages** dashboard and resend unprocessed requests to the **Async Engine**.

**IMPORTANT!**

If your user has more than one role, then your access rights are cumulative and you are granted the highest access right.

Read the following sections for detailed information about each security role's access rights to entities and endpoints within the FintechOS Platform:

## Loan Admin Officer

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	Yes	Yes
AccountRelOwnership	No	Yes	No	Yes
Address	No	Yes	No	Yes
approvalTask	No	Yes	No	Yes
businessunit	Yes	Yes	Yes	Yes
BWstatus	Yes	Yes	Yes	Yes
entity	Yes	Yes	Yes	No
entitystatus	Yes	Yes	Yes	Yes
Division	No	Yes	No	Yes
Document	No	Yes	No	Yes
GroupAccount	Yes	Yes	Yes	Yes
GroupMember	No	Yes	No	Yes
UnitType	No	Yes	No	Yes
BandedInterest	No	Yes	No	Yes
BankingProduct	No	Yes	No	Yes
BankingProductAgreement	No	Yes	No	Yes
BankingProductDiscount	No	Yes	No	Yes
BankingProductDocument	No	Yes	No	Yes
BankingProductMandatoryRoles	Yes	Yes	Yes	Yes
BankingProductType	No	Yes	No	No
ClassificationType	No	Yes	No	Yes
CollateralType	Yes	Yes	Yes	Yes
Commission	Yes	Yes	Yes	Yes
CommissionSchema	Yes	Yes	Yes	Yes
CommissionType	Yes	Yes	Yes	Yes
CommissionValue	Yes	Yes	Yes	Yes

Entity	Insert	Read	Update	Delete
Covenant	Yes	Yes	Yes	Yes
Feature	No	Yes	No	Yes
Formula	No	Yes	No	Yes
FormulaType	Yes	Yes	Yes	Yes
GLAccounts	Yes	Yes	Yes	Yes
Insuranceltem	No	Yes	No	Yes
Interest	No	Yes	No	Yes
InterestCommissionItem	Yes	Yes	Yes	Yes
InterestCommissionItemFilter	Yes	Yes	Yes	Yes
InterestRateMatrix	No	Yes	No	Yes
InterestValue	No	Yes	No	Yes
PaymentScheduleType	No	Yes	No	Yes
ProductAvailabilityItemFilter	No	Yes	No	Yes
ProductClassification	No	Yes	No	Yes
ProductCovenant	No	Yes	No	Yes
ProductDestinationType	No	Yes	No	Yes
ProductDisbursement	No	Yes	No	Yes
ProductGuaranteeStructure	No	Yes	No	Yes
ProductQuestion	No	Yes	No	Yes
TestScenario	No	Yes	No	Yes
BankAccount	Yes	Yes	Yes	Yes
BankAccountOperation	Yes	Yes	Yes	Yes
CollateralRegister	Yes	Yes	Yes	Yes
CollateralRegister_BW	Yes	No	Yes	Yes
CollateralRegisterDocuments	Yes	Yes	Yes	Yes
CollateralRegisterOwner	Yes	Yes	Yes	Yes
CollateralRegisterParticipants	Yes	Yes	Yes	Yes
CollateralRegisterRank	Yes	Yes	Yes	Yes
Contract	Yes	Yes	Yes	Yes
Contract_BW	Yes	Yes	Yes	Yes
ContractAccrualAndProvision	Yes	Yes	Yes	Yes
ContractBorrowers	Yes	Yes	Yes	Yes
ContractClassification	Yes	Yes	Yes	Yes
ContractCollateral	Yes	Yes	Yes	Yes
ContractCorrectionEntry	Yes	Yes	Yes	Yes
ContractCorrectionEntry_BW	Yes	No	Yes	Yes
ContractCorrectionEntryDetail	Yes	Yes	Yes	Yes
ContractCovenant	Yes	Yes	Yes	Yes

Entity	Insert	Read	Update	Delete
ContractCovenant_BW	Yes	Yes	Yes	Yes
ContractDisbursement	Yes	Yes	Yes	Yes
ContractDisbursementTranche	Yes	Yes	Yes	Yes
ContractDisbursementTranche_BW	Yes	Yes	Yes	Yes
ContractDiscount	Yes	Yes	Yes	Yes
ContractDocument	Yes	Yes	Yes	Yes
ContractDocument_BW	Yes	Yes	No	Yes
ContractEvent	Yes	Yes	Yes	Yes
ContractEvent_BW	Yes	No	Yes	Yes
ContractExtended	Yes	Yes	Yes	Yes
ContractFee	Yes	Yes	Yes	Yes
ContractGuarantor	Yes	Yes	Yes	Yes
ContractInterestRate	Yes	Yes	Yes	Yes
ContractParticipant	Yes	Yes	Yes	Yes
ContractParticipant_BW	Yes	Yes	Yes	Yes
ContractPenalty	Yes	Yes	Yes	Yes
ContractReevaluation	Yes	Yes	Yes	Yes
ContractRepaymentSchedule	Yes	Yes	Yes	Yes
ContractRepaymentScheduleDetail	Yes	Yes	Yes	Yes
ContractRepaymentScheduleDisb	Yes	Yes	Yes	Yes
ContractRepaymentScheduleDisbDet	Yes	Yes	Yes	Yes
ContractRepaymentScheduleVersion	Yes	Yes	Yes	Yes
ControlPanel	No	Yes	No	No
CovenantResolution	Yes	Yes	Yes	Yes
CreditFacility	No	Yes	No	Yes
CreditFacilityAccrual	No	Yes	No	Yes
CreditFacilityDetail	Yes	Yes	Yes	Yes
CreditFacilityFee	No	Yes	No	Yes
CreditFacilityFeeValue	No	Yes	No	Yes
CreditFacilityParticipant	No	Yes	No	Yes
CreditFacilityPlan	No	Yes	No	Yes
CreditFacilityProduct	No	Yes	No	Yes
CustomerLimit	Yes	Yes	Yes	Yes
CustomerLimit_BW	Yes	Yes	Yes	Yes
CustomerLimitType	Yes	Yes	Yes	Yes
DailyContractInterest	Yes	Yes	Yes	Yes

Entity	Insert	Read	Update	Delete
DelayCategory	Yes	Yes	Yes	Yes
DepositValueCalculation	Yes	Yes	Yes	Yes
Holiday	Yes	Yes	Yes	Yes
OperationItem	No	Yes	No	Yes
Payment	Yes	Yes	Yes	Yes
PaymentAllocation	Yes	Yes	Yes	Yes
PaymentNotification	Yes	Yes	Yes	Yes
PeriodicityType	Yes	Yes	Yes	Yes
ReconciliationAccountSettings	Yes	Yes	Yes	Yes
RepaymentNotification	No	Yes	No	Yes
RepaymentNotificationDetail	No	Yes	No	Yes
SalesChannel	No	Yes	No	No
SystemParameter	Yes	Yes	Yes	Yes
TransactionOperationType	Yes	Yes	Yes	Yes
VersioningReason	No	Yes	No	No
WeekDay	Yes	Yes	Yes	Yes
AccountType	No	Yes	No	Yes
Action	No	Yes	No	Yes
Activity	No	Yes	No	Yes
Country	No	Yes	No	Yes
Currency	Yes	Yes	Yes	Yes
EntityStatusSettings	Yes	Yes	Yes	Yes
AccountingChart	Yes	Yes	Yes	Yes
AccountingEntry	Yes	Yes	Yes	Yes
AccountingJournal	Yes	Yes	Yes	Yes
AccountingScope	Yes	Yes	Yes	Yes
AccountingSystem	Yes	Yes	Yes	Yes
Journal	Yes	Yes	Yes	Yes
LegalEntity	Yes	Yes	Yes	Yes
LegalEntitySystem	Yes	Yes	Yes	Yes
OperationTransaction	Yes	Yes	Yes	Yes
OperationTransactionValue	Yes	Yes	Yes	Yes
TransactionAccountingModel	Yes	Yes	Yes	Yes
TransactionItemAccountingConfig	Yes	Yes	Yes	Yes
TransactionType	Yes	Yes	Yes	Yes
TransactionValueType	Yes	Yes	Yes	Yes
Activity	No	Yes	No	Yes
Agreement	Yes	Yes	Yes	Yes



Entity	Insert	Read	Update	Delete
Agreement_BW	Yes	Yes	Yes	Yes
AgreementPricing	Yes	Yes	Yes	Yes
Invoice	Yes	Yes	Yes	Yes
Invoice_BW	Yes	Yes	Yes	Yes
InvoiceDetail	Yes	Yes	Yes	Yes
VersionSettings	Yes	Yes	Yes	Yes
optionset	No	Yes	No	Yes
optionsetitem	No	Yes	No	Yes
systemuser	Yes	Yes	Yes	Yes

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductDefaultValues
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetBankingProductPeriod
FTOS_BP_GetBankingProductTypeValues
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetInterestCommissionItem
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_AddUpdateContractPaymentHoliday
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateContractCustomValues_ForDisbursement
FTOS_CB_CalculateInvoiceAmounts
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_CheckScheduleImported
FTOS_CB_ContractCommissionAmountCalc
FTOS_CB_CountContractInterests
FTOS_CB_DeleteDocument
FTOS_CB_DeleteRepaymentSchedule
FTOS_CB_Disbursement_WarningInsufficientFunds

Endpoint
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractCollateralInfo
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractEventRepaymentScheduleIds
FTOS_CB_GetContractExtendedData
FTOS_CB_GetContractInfo
FTOS_CB_GetContractInterestRates
FTOS_CB_GetContractPeriodicity
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetContractsWithPaymentHolidayPossibility
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceFutureInstallmentsReport
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetDataSourcePastDueInstallmentsReport
FTOS_CB_GetDisbursementRepaymentSchedule
FTOS_CB_GetEarlyRepaymentValues
FTOS_CB_GetExchangeRate
FTOS_CB_GetExchangeRateOfCollateralRegisterToContract
FTOS_CB_GetFixedVariableInterest
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer

Endpoint
FTOS_CB_GetNoOfContractTranches
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductDetails
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetPurgeableRecordsByCode
FTOS_CB_GetReasonDetails
FTOS_CB_GetRemainingNotifications
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetScheduleColumns
FTOS_CB_GetSoonToExpireCurrentAccountWithOverdrafts
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_GetWorkingDate
FTOS_CB_PaymentHolidaySchedule
FTOS_CB_PaymentScheduleFields
FTOS_CB_PaymentScheduleFieldsDisb
FTOS_CB_PeriodicityType
FTOS_CB_ProcessAccrualsAndProvisions
FTOS_CB_RecalculateEarlyRepaymentSchedule
FTOS_CB_RecalculateSchedule
FTOS_CB_RecalculateScheduleOnDemand
FTOS_CB_releaseCollaterals
FTOS_CB_SetInterestRate
FTOS_CB_UpdateActivationDate
FTOS_CB_UpdateTranche
FTOS_CB_ValidateOverdraftExpireFields
FTOS_CB_VerifyInsertedContractInterestRates
FTOS_CheckLicense
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility
FTOS_GL_CheckToBePurgedTransaction
FTOS_GL_GenerateAccountingEntry
FTOS_GL_GetTransactionTypeDetails
FTOS_GL_GetTransactionTypeDetailsBulk
FTOS_TPM_CalculateCommissionAppliedTo

Endpoint
FTOS_TPM_CallFormula
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Accounting Read

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	No	No
approvalTask	No	Yes	No	No
businessunit	No	Yes	No	No
entity	No	Yes	No	No
entitystatus	No	Yes	No	No
GroupMember	No	Yes	No	No
BankingProduct	No	Yes	No	No
BankingProductType	No	Yes	No	No
Commission	No	Yes	No	No
CommissionSchema	No	Yes	No	No
CommissionType	No	Yes	No	No
CommissionValue	No	Yes	No	No
FormulaType	No	Yes	No	No
GLAccounts	No	Yes	No	No
Interest	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No
ProductClassification	No	Yes	No	No
BankAccount	No	Yes	No	No
BankAccountOperation	No	Yes	No	No
Contract	No	Yes	No	No
ContractAccrualAndProvision	No	Yes	No	No
ContractClassification	No	Yes	No	No
ContractCollateral	No	Yes	No	No
ContractCovenant	No	Yes	No	No

Entity	Insert	Read	Update	Delete
ContractDisbursementTranche	No	Yes	No	No
ContractDocument	No	Yes	No	No
ContractEvent	No	Yes	No	No
ContractFee	No	Yes	No	No
ContractGuarantor	No	Yes	No	No
ContractParticipant	No	Yes	No	No
ContractPenalty	No	Yes	No	No
ContractReevaluation	No	Yes	No	No
ContractRepaymentSchedule	No	Yes	No	No
ContractRepaymentScheduleDetail	No	Yes	No	No
ContractRepaymentScheduleVersion	No	Yes	No	No
CreditFacility	No	Yes	No	No
CreditFacilityAccrual	No	Yes	No	No
CreditFacilityDetail	No	Yes	No	No
CreditFacilityFee	No	Yes	No	No
CreditFacilityFeeValue	No	Yes	No	No
CreditFacilityParticipant	No	Yes	No	No
CreditFacilityPlan	No	Yes	No	No
CreditFacilityProduct	No	Yes	No	No
CustomerLimit	No	Yes	No	No
CustomerLimit_BW	No	Yes	No	No
CustomerLimitType	No	Yes	No	No
OperationItem	No	Yes	No	No
Payment	No	Yes	No	No
PaymentNotification	No	Yes	No	No
PeriodicityType	No	Yes	No	No
RepaymentNotification	No	Yes	No	No
TransactionOperationType	No	Yes	No	No
VersioningReason	No	Yes	No	No
WeekDay	No	Yes	No	No
AccountType	No	Yes	No	No
Currency	No	Yes	No	No
EntityStatusSettings	No	Yes	No	No
AccountingChart	No	Yes	No	No
AccountingEntry	No	Yes	No	No
AccountingJournal	No	Yes	No	No
AccountingScope	No	Yes	No	No

Entity	Insert	Read	Update	Delete
AccountingSystem	No	Yes	No	No
Journal	No	Yes	No	No
LegalEntity	No	Yes	No	No
LegalEntitySystem	No	Yes	No	No
OperationTransaction	No	Yes	No	No
OperationTransactionValue	No	Yes	No	No
TransactionAccountingModel	No	Yes	No	No
TransactionItemAccountingConfig	No	Yes	No	No
TransactionType	No	Yes	No	No
TransactionValueType	No	Yes	No	No
Agreement	No	Yes	No	No
Agreement_BW	No	Yes	No	No
AgreementPricing	No	Yes	No	No
Invoice	No	Yes	No	No
Invoice_BW	No	Yes	No	No
InvoiceDetail	No	Yes	No	No
optionset	No	Yes	No	No
optionsetitem	No	Yes	No	No

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateInvoiceAmounts
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract

Endpoint
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractInfo
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetExchangeRate
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_PeriodicityType
FTOS_CB_UpdateActivationDate
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility
FTOS_GL_GenerateAccountingEntry
FTOS_TPM_CalculateCommissionAppliedTo
FTOS_TPM_CallFormula

Endpoint
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

The following dashboards can be viewed by a user with this security role:

Dashboards
RequestContractEvent
CustomerLimit

## Corporate Credit Officer

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	Yes	No
AccountRelOwnership	No	Yes	No	No
approvalTask	No	Yes	No	No
attribute	No	Yes	No	No
businessunit	No	Yes	No	No
BWstatus	No	Yes	No	No
entity	No	Yes	No	No
entitystatus	No	Yes	No	No
Document	No	Yes	Yes	No
GroupAccount	No	Yes	No	No
GroupMember	No	Yes	No	No
BankingProduct	No	Yes	No	No
BankingProductType	No	Yes	No	No
CollateralType	No	Yes	Yes	No
Commission	No	Yes	No	No
Covenant	No	Yes	No	No
Interest	No	Yes	No	No
InterestCommissionItem	No	Yes	No	No
InterestCommissionItemFilter	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No



Entity	Insert	Read	Update	Delete
ProductClassification	No	Yes	No	No
BankAccount	No	Yes	No	No
BankAccountOperation	No	Yes	No	No
CollateralRegister	Yes	Yes	Yes	No
CollateralRegister_BW	Yes	Yes	No	No
CollateralRegisterDocuments	Yes	Yes	Yes	No
CollateralRegisterOwner	Yes	Yes	Yes	No
CollateralRegisterParticipants	Yes	Yes	Yes	No
CollateralRegisterRank	Yes	Yes	Yes	No
Contract	Yes	Yes	Yes	No
Contract_BW	Yes	Yes	No	No
ContractAccrualAndProvision	Yes	Yes	Yes	No
ContractBorrowers	Yes	Yes	Yes	No
ContractClassification	No	Yes	No	No
ContractCollateral	Yes	Yes	Yes	No
ContractCorrectionEntry	Yes	Yes	Yes	No
ContractCorrectionEntryDetail	Yes	Yes	Yes	No
ContractCovenant	Yes	Yes	Yes	Yes
ContractDisbursement	Yes	Yes	Yes	No
ContractDisbursementTranche	Yes	Yes	Yes	Yes
ContractDiscount	Yes	Yes	Yes	No
ContractDocument	Yes	Yes	Yes	Yes
ContractDocument_BW	Yes	Yes	No	Yes
ContractEvent	Yes	Yes	Yes	No
ContractEvent_BW	Yes	Yes	No	No
ContractFee	Yes	Yes	Yes	Yes
ContractGuarantor	Yes	Yes	Yes	No
ContractParticipant	Yes	Yes	Yes	Yes
ContractParticipant_BW	Yes	Yes	Yes	Yes
ContractPenalty	Yes	Yes	Yes	No
ContractPenaltyDetail	Yes	Yes	Yes	No
ContractReevaluation	Yes	Yes	Yes	No
ContractRepaymentSchedule	Yes	Yes	Yes	No
ContractRepaymentScheduleDetail	Yes	Yes	Yes	No
ContractRepaymentScheduleDisb	Yes	Yes	Yes	No
ContractRepaymentScheduleDisbDet	Yes	Yes	Yes	No

Entity	Insert	Read	Update	Delete
ContractRepaymentScheduleVersion	Yes	Yes	Yes	No
ControlPanel	No	Yes	No	No
CreditFacility	Yes	Yes	Yes	No
CreditFacility_BW	Yes	Yes	No	No
CreditFacility_BWA	Yes	Yes	No	No
CreditFacilityAccrual	Yes	Yes	Yes	No
CreditFacilityDetail	Yes	Yes	Yes	No
CreditFacilityDetail_BW	Yes	Yes	No	No
CreditFacilityDetail_BWA	Yes	Yes	No	No
CreditFacilityFee	Yes	Yes	Yes	No
CreditFacilityFeeValue	Yes	Yes	Yes	No
CreditFacilityParticipant	Yes	Yes	Yes	No
CreditFacilityPlan	Yes	Yes	Yes	No
CreditFacilityProduct	Yes	Yes	Yes	No
CustomerLimit	Yes	Yes	Yes	Yes
CustomerLimit_BW	Yes	Yes	Yes	Yes
CustomerLimitType	Yes	Yes	Yes	Yes
DailyContractInterest	Yes	Yes	Yes	No
DelayCategory	No	Yes	No	No
DepositValueCalculation	Yes	Yes	Yes	No
OperationItem	No	Yes	No	No
PaymentAllocation	Yes	Yes	Yes	No
PaymentNotification	Yes	Yes	Yes	No
PeriodicityType	No	Yes	No	No
RepaymentNotification	Yes	Yes	Yes	No
VersioningReason	No	Yes	No	No
AccountType	No	Yes	No	No
Currency	No	Yes	No	No
EntityStatusSettings	No	Yes	No	No
AccountingEntry	No	Yes	No	No
TransactionType	No	Yes	No	No
VersionSettings	No	Yes	No	No
systemuser	No	Yes	No	No

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates

Endpoint
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetBankingProductsForCreditFacility
FTOS_BP_GetCommissionInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateContractCustomValues_ForDisbursement
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckLimitTypeRole
FTOS_CB_ContractCommissionAmountCalc
FTOS_CB_DeleteDocument
FTOS_CB_DeleteRepaymentSchedule
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CreditFacility
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractCollateralInfo
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractExtendedData
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetCreditFacilityInfo
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetCreditFacilityParticipantInfo
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceFutureInstallmentsReport
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetDataSourcePastDueInstallmentsReport

Endpoint
FTOS_CB_GetEarlyRepaymentValues
FTOS_CB_GetExchangeRate
FTOS_CB_GetExchangeRateOfCollateralRegisterToContract
FTOS_CB_GetFixedVariableInterest
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfContractTranches
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetPeriodicity
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetRecoverInterest
FTOS_CB_GetRemainingNotifications
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSoonToExpireCurrentAccountWithOverdrafts
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_PaymentHolidaySchedule
FTOS_CB_PaymentScheduleFieldsDisb
FTOS_CB_PeriodicityType
FTOS_CB_ProcessAccrualsAndProvisions
FTOS_CB_RecalculateEarlyRepaymentSchedule
FTOS_CB_RecalculateRescheduleOverduesSchedule
FTOS_CB_RecalculateSchedule
FTOS_CB_releaseCollaterals
FTOS_CB_SelectNotificationForReschedule
FTOS_CB_UpdateActivationDate
FTOS_CB_UpdateContractDelayCategory_Filtered
FTOS_CB_UpdateTranche
FTOS_CB_ValidateOverdraftExpireFields
FTOS_GetCustomersAvailableForCreditFacility
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartCreditFacility

Endpoint
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Retail Credit Officer

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	No	No
AccountRelOwnership	No	Yes	No	No
Address	No	Yes	No	No
approvalTask	No	Yes	No	No
businessunit	Yes	Yes	Yes	No
BWstatus	Yes	Yes	Yes	No
entity	Yes	Yes	Yes	No
entitystatus	Yes	Yes	Yes	No
Division	No	Yes	No	No
Document	No	Yes	No	No
GroupAccount	Yes	Yes	Yes	No
GroupMember	No	Yes	No	No
UnitType	No	Yes	No	No
BandedInterest	No	Yes	No	No
BankingProduct	No	Yes	No	No
BankingProductAgreement	No	Yes	No	No
BankingProductDiscount	No	Yes	No	No
BankingProductDocument	No	Yes	No	No
BankingProductType	No	Yes	No	No
ClassificationType	No	Yes	No	No
CollateralType	Yes	Yes	Yes	No
Commission	Yes	Yes	Yes	No
CommissionSchema	Yes	Yes	Yes	No
CommissionType	Yes	Yes	Yes	No
CommissionValue	Yes	Yes	Yes	No
Covenant	Yes	Yes	Yes	No
Feature	No	Yes	No	No
Formula	No	Yes	No	No
FormulaType	Yes	Yes	Yes	No

Entity	Insert	Read	Update	Delete
GLAccounts	No	Yes	No	No
Insuranceltem	No	Yes	No	No
Interest	No	Yes	No	No
InterestCommissionItem	Yes	Yes	Yes	No
InterestCommissionItemFilter	Yes	Yes	Yes	No
InterestRateMatrix	No	Yes	No	No
InterestValue	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No
ProductAvailabilityItemFilter	No	Yes	No	No
ProductClassification	No	Yes	No	No
ProductCovenant	No	Yes	No	No
ProductDestinationType	No	Yes	No	No
ProductDisbursement	No	Yes	No	No
ProductGuaranteeStructure	No	Yes	No	No
ProductQuestion	No	Yes	No	No
TestScenario	No	Yes	No	No
BankAccount	Yes	Yes	Yes	No
BankAccountOperation	Yes	Yes	Yes	No
CollateralRegister	Yes	Yes	Yes	No
CollateralRegister_BW	Yes	Yes	Yes	No
CollateralRegisterDocuments	Yes	Yes	Yes	No
CollateralRegisterOwner	Yes	Yes	Yes	No
CollateralRegisterParticipants	Yes	Yes	Yes	No
CollateralRegisterRank	Yes	Yes	Yes	No
Contract	Yes	Yes	Yes	No
Contract_BW	Yes	Yes	Yes	No
ContractAccrualAndProvision	Yes	Yes	Yes	No
ContractBorrowers	Yes	Yes	Yes	No
ContractClassification	Yes	Yes	Yes	No
ContractCollateral	Yes	Yes	Yes	No
ContractCorrectionEntry	Yes	Yes	Yes	No
ContractCorrectionEntry_BW	Yes	Yes	Yes	No
ContractCorrectionEntryDetail	Yes	Yes	Yes	No
ContractCovenant	Yes	Yes	Yes	No
ContractCovenant_BW	Yes	Yes	Yes	No
ContractDisbursement	Yes	Yes	Yes	No
ContractDisbursementTranche	Yes	Yes	Yes	No

Entity	Insert	Read	Update	Delete
ContractDisbursementTranche_BW	Yes	Yes	Yes	No
ContractDiscount	Yes	Yes	Yes	No
ContractDocument	Yes	Yes	Yes	Yes
ContractDocument_BW	Yes	Yes	No	Yes
ContractEvent	Yes	Yes	Yes	No
ContractEvent_BW	Yes	Yes	Yes	No
ContractFee	Yes	Yes	Yes	No
ContractGuarantor	Yes	Yes	Yes	No
ContractParticipant	Yes	Yes	Yes	No
ContractParticipant_BW	Yes	Yes	Yes	No
ContractPenalty	Yes	Yes	Yes	No
ContractReevaluation	Yes	Yes	Yes	No
ContractRepaymentSchedule	Yes	Yes	Yes	No
ContractRepaymentScheduleDetail	Yes	Yes	Yes	No
ContractRepaymentScheduleDisb	Yes	Yes	Yes	No
ContractRepaymentScheduleDisbDet	Yes	Yes	Yes	No
ContractRepaymentScheduleVersion	Yes	Yes	Yes	No
ControlPanel	No	Yes	No	No
CovenantResolution	Yes	Yes	Yes	No
CreditFacility	No	Yes	No	No
CreditFacilityAccrual	No	Yes	No	No
CreditFacilityDetail	Yes	Yes	Yes	No
CreditFacilityFee	No	Yes	No	No
CreditFacilityFeeValue	No	Yes	No	No
CreditFacilityParticipant	No	Yes	No	No
CreditFacilityPlan	No	Yes	No	No
CreditFacilityProduct	No	Yes	No	No
CustomerLimit	Yes	Yes	Yes	Yes
CustomerLimit_BW	Yes	Yes	Yes	Yes
CustomerLimitType	Yes	Yes	Yes	Yes
DailyContractInterest	Yes	Yes	Yes	No
DepositValueCalculation	Yes	Yes	Yes	No
OperationItem	No	Yes	No	No
Payment	Yes	Yes	Yes	No
PaymentAllocation	Yes	Yes	Yes	No
PaymentNotification	Yes	Yes	Yes	No

Entity	Insert	Read	Update	Delete
PeriodicityType	Yes	Yes	Yes	No
RepaymentNotification	No	Yes	No	No
RepaymentNotificationDetail	No	Yes	No	No
VersioningReason	No	Yes	No	No
WeekDay	Yes	Yes	No	No
AccountType	No	Yes	No	No
Action	No	Yes	No	No
Activity	No	Yes	No	No
Country	No	Yes	No	No
Currency	Yes	Yes	Yes	No
EntityStatusSettings	Yes	Yes	Yes	No
AccountingEntry	No	Yes	No	No
TransactionType	No	Yes	No	No
Activity	No	Yes	No	No
Agreement	Yes	Yes	Yes	No
Agreement_BW	Yes	Yes	Yes	No
AgreementPricing	Yes	Yes	Yes	No
Invoice	Yes	Yes	Yes	No
Invoice_BW	Yes	Yes	Yes	Yes
InvoiceDetail	Yes	Yes	Yes	No
VersionSettings	Yes	Yes	Yes	No
systemuser	Yes	Yes	Yes	No

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductDefaultValues
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_AddUpdateContractPaymentHoliday
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateContractCustomValues_ForDisbursement
FTOS_CB_CalculateInvoiceAmounts



Endpoint
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_ContractCommissionAmountCalc
FTOS_CB_DeleteDocument
FTOS_CB_DeleteRepaymentSchedule
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractCollateralInfo
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractExtendedData
FTOS_CB_GetContractInfo
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetContractsWithPaymentHolidayPossibility
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceFutureInstallmentsReport
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetDataSourcePastDueInstallmentsReport
FTOS_CB_GetEarlyRepaymentValues
FTOS_CB_GetExchangeRate
FTOS_CB_GetExchangeRateOfCollateralRegisterToContract
FTOS_CB_GetFixedVariableInterest
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values

Endpoint
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfContractTranches
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetRemainingNotifications
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSoonToExpireCurrentAccountWithOverdrafts
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_GetWorkingDate
FTOS_CB_PaymentHolidaySchedule
FTOS_CB_PaymentScheduleFields
FTOS_CB_PaymentScheduleFieldsDisb
FTOS_CB_PeriodicityType
FTOS_CB_ProcessAccrualsAndProvisions
FTOS_CB_RecalculateEarlyRepaymentSchedule
FTOS_CB_RecalculateSchedule
FTOS_CB_releaseCollaterals
FTOS_CB_SetInterestRate
FTOS_CB_UpdateActivationDate
FTOS_CB_UpdateContractDelayCategory_Filtered
FTOS_CB_UpdateTranche
FTOS_CB_ValidateOverdraftExpireFields
FTOS_CheckLicense
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility
FTOS_TPM_CalculateCommissionAppliedTo
FTOS_TPM_CallFormula
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts

Endpoint
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Accounting Officer

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	No	No
approvalTask	No	Yes	No	No
businessunit	No	Yes	No	No
entity	No	Yes	No	No
entitystatus	Yes	Yes	Yes	No
GroupMember	No	Yes	No	No
BankingProduct	No	Yes	No	No
BankingProductType	No	Yes	No	No
Commission	No	Yes	No	No
CommissionSchema	No	Yes	No	No
CommissionType	Yes	Yes	Yes	No
CommissionValue	No	Yes	No	No
FormulaType	No	Yes	No	No
GLAccounts	Yes	Yes	Yes	No
Interest	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No
ProductClassification	No	Yes	No	No
BankAccount	No	Yes	No	No
BankAccountOperation	No	Yes	No	No
Contract	No	Yes	No	No
ContractAccrualAndProvision	No	Yes	No	No
ContractClassification	No	Yes	No	No
ContractCollateral	No	Yes	No	No
ContractCovenant	No	Yes	No	No
ContractDisbursementTranche	No	Yes	No	No
ContractDocument	No	Yes	No	No
ContractEvent	No	Yes	No	No
ContractFee	No	Yes	No	No
ContractParticipant	No	Yes	No	No

Entity	Insert	Read	Update	Delete
ContractPenalty	No	Yes	No	No
ContractReevaluation	No	Yes	No	No
ContractRepaymentSchedule	No	Yes	No	No
ContractRepaymentScheduleDetail	No	Yes	No	No
ContractRepaymentScheduleVersion	No	Yes	No	No
CreditFacility	No	Yes	No	No
CreditFacilityAccrual	No	Yes	No	No
CreditFacilityDetail	No	Yes	No	No
CreditFacilityFee	No	Yes	No	No
CreditFacilityFeeValue	No	Yes	No	No
CreditFacilityParticipant	No	Yes	No	No
CreditFacilityPlan	No	Yes	No	No
CreditFacilityProduct	No	Yes	No	No
CustomerLimit	No	Yes	No	No
CustomerLimit_BW	No	Yes	No	No
CustomerLimitType	No	Yes	No	No
OperationItem	No	Yes	No	No
Payment	No	Yes	No	No
PaymentNotification	No	Yes	No	No
PeriodicityType	No	Yes	No	No
RepaymentNotification	No	Yes	No	No
TransactionOperationType	Yes	Yes	Yes	No
VersioningReason	No	Yes	No	No
WeekDay	No	Yes	No	No
AccountType	No	Yes	No	No
Currency	No	Yes	No	No
EntityStatusSettings	No	Yes	No	No
AccountingChart	Yes	Yes	Yes	No
AccountingEntry	Yes	Yes	Yes	No
AccountingJournal	Yes	Yes	Yes	No
AccountingScope	Yes	Yes	Yes	No
AccountingSystem	Yes	Yes	Yes	No
Journal	Yes	Yes	Yes	No
LegalEntity	Yes	Yes	Yes	No
LegalEntitySystem	Yes	Yes	Yes	No
OperationTransaction	Yes	Yes	Yes	No
OperationTransactionValue	Yes	Yes	Yes	No

Entity	Insert	Read	Update	Delete
TransactionAccountingModel	Yes	Yes	Yes	No
TransactionItemAccountingConfig	Yes	Yes	Yes	No
TransactionType	Yes	Yes	Yes	No
TransactionValueType	Yes	Yes	Yes	No
Agreement	No	Yes	No	No
Agreement_BW	No	Yes	No	No
AgreementPricing	No	Yes	No	No
Invoice	No	Yes	No	No
Invoice_BW	No	Yes	No	No
InvoiceDetail	No	Yes	No	No
optionset	No	Yes	No	No
optionsetitem	No	Yes	No	No

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateInvoiceAmounts
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail

Endpoint
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractInfo
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetExchangeRate
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_PeriodicityType
FTOS_CB_UpdateActivationDate
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility
FTOS_GL_GenerateAccountingEntry
FTOS_TPM_CalculateCommissionAppliedTo
FTOS_TPM_CallFormula
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Supervisor Risk Officer

A user with this security role has the following access rights to records in the FintechOS Platform's entities within **their organization**:

Entity	Insert	Read	Update	Delete
Account	No	Yes	Yes	No
AccountRelOwnership	No	Yes	No	No
approvalTask	No	Yes	Yes	No
businessunit	No	Yes	No	No
entity	No	Yes	No	No
entitystatus	No	Yes	No	No
GroupAccount	No	Yes	No	No
GroupMember	No	Yes	No	No
BankingProductType	No	Yes	No	No
CollateralType	No	Yes	No	No
Commission	No	Yes	No	No
CommissionSchema	No	Yes	No	No
CommissionType	No	Yes	No	No
CommissionValue	No	Yes	No	No
Covenant	No	Yes	No	No
FormulaType	No	Yes	No	No
Interest	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No
ProductClassification	No	Yes	No	No
BankAccount	No	Yes	No	No
BankAccountOperation	No	Yes	No	No
CollateralRegister	No	Yes	No	No
CollateralRegisterDocuments	No	Yes	No	No
CollateralRegisterOwner	No	Yes	No	No
CollateralRegisterParticipants	No	Yes	No	No
CollateralRegisterRank	No	Yes	No	No
Contract	No	Yes	No	No
ContractAccrualAndProvision	No	Yes	No	No
ContractClassification	No	Yes	No	No
ContractCollateral	No	Yes	No	No
ContractCorrectionEntry	No	Yes	No	No
ContractCorrectionEntryDetail	No	Yes	No	No
ContractCovenant	No	Yes	No	No
ContractDisbursementTranche	No	Yes	No	No

Entity	Insert	Read	Update	Delete
ContractDocument	No	Yes	No	No
ContractEvent	No	Yes	No	No
ContractFee	No	Yes	No	No
ContractGuarantor	No	Yes	No	No
ContractParticipant	No	Yes	No	No
ContractPenalty	No	Yes	No	No
ContractPenaltyDetail	No	Yes	No	No
ContractReevaluation	No	Yes	No	No
ContractRepaymentSchedule	No	Yes	No	No
ContractRepaymentScheduleDetail	No	Yes	No	No
ContractRepaymentScheduleDisb	No	Yes	No	No
ContractRepaymentScheduleVersi on	No	Yes	No	No
CreditFacility	No	Yes	No	No
CreditFacility_BW	No	Yes	No	No
CreditFacilityAccrual	No	Yes	No	No
CreditFacilityDetail	No	Yes	No	No
CreditFacilityFee	No	Yes	No	No
CreditFacilityFeeValue	No	Yes	No	No
CreditFacilityParticipant	No	Yes	No	No
CreditFacilityPlan	No	Yes	No	No
CreditFacilityProduct	No	Yes	No	No
CustomerLimit	Yes	Yes	Yes	Yes
CustomerLimit_BW	Yes	Yes	Yes	Yes
CustomerLimitType	Yes	Yes	Yes	Yes
OperationItem	No	Yes	No	No
Payment	No	Yes	No	No
PaymentAllocation	No	Yes	No	No
PaymentNotification	No	Yes	No	No
PeriodicityType	No	Yes	No	No
RepaymentNotification	No	Yes	No	No
RepaymentNotificationDetail	No	Yes	No	No
VersioningReason	No	Yes	No	No
WeekDay	No	Yes	No	No
AccountType	No	Yes	No	No
Currency	No	Yes	No	No
EntityStatusSettings	No	Yes	No	No
AccountingEntry	No	Yes	No	No



Entity	Insert	Read	Update	Delete
TransactionType	No	Yes	No	No
Agreement	No	Yes	No	No
Agreement_BW	No	Yes	No	No
AgreementPricing	No	Yes	No	No
Invoice	No	Yes	No	No
Invoice_BW	No	Yes	No	No
InvoiceDetail	No	Yes	No	No
VersionSettings	No	Yes	No	No
userCompetence	No	Yes	No	No

A user with this security role can access the following endpoints:

Endpoint
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateInvoiceAmounts
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractEventFee
FTOS_CB_GetContractInfo

Endpoint
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetCreditFacilityInfo
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceFutureInstallmentsReport
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetDataSourcePastDueInstallmentsReport
FTOS_CB_GetEarlyRepaymentValues
FTOS_CB_GetExchangeRate
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfContractTranches
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductInterestValue
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_PaymentHolidaySchedule
FTOS_CB_PaymentScheduleFields
FTOS_CB_PaymentScheduleFieldsDisb
FTOS_CB_PeriodicityType
FTOS_CB_ScheduleVersionFields
FTOS_CB_UpdateActivationDate
FTOS_Entity Version
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility

Endpoint
FTOS_TPM_CalculateCommissionAppliedTo
FTOS_TPM_CallFormula
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Risk Officer

A user with this security role has the following access rights to records in FintechOS Platform's entities:

Entity	Insert	Read	Update	Delete
Account	No	Yes	Yes	No
AccountRelOwnership	No	Yes	No	No
Address	No	Yes	No	No
approvalTask	No	Yes	No	No
businessunit	No	Yes	No	No
entity	No	Yes	No	No
entitystatus	No	Yes	No	No
Division	No	Yes	No	No
Document	No	Yes	No	No
GroupAccount	No	Yes	No	No
GroupMember	No	Yes	No	No
UnitType	No	Yes	No	No
BankingProductType	No	Yes	No	No
CollateralType	No	Yes	No	No
Commission	No	Yes	No	No
CommissionSchema	No	Yes	No	No
CommissionType	No	Yes	No	No
CommissionValue	No	Yes	No	No
Covenant	No	Yes	No	No
FormulaType	No	Yes	No	No
Interest	No	Yes	No	No
PaymentScheduleType	No	Yes	No	No
ProductClassification	No	Yes	No	No

Entity	Insert	Read	Update	Delete
BankAccount	No	Yes	No	No
BankAccountOperation	No	Yes	No	No
CollateralRegister	No	Yes	No	No
CollateralRegisterDocuments	No	Yes	No	No
CollateralRegisterOwner	No	Yes	No	No
CollateralRegisterParticipants	No	Yes	No	No
CollateralRegisterRank	No	Yes	No	No
Contract	Yes	Yes	No	No
ContractAccrualAndProvision	No	Yes	No	No
ContractClassification	No	Yes	No	No
ContractCollateral	No	Yes	No	No
ContractCorrectionEntry	No	Yes	No	No
ContractCorrectionEntryDetail	No	Yes	No	No
ContractCovenant	No	Yes	No	No
ContractDisbursementTranche	No	Yes	No	No
ContractDocument	No	Yes	No	No
ContractEvent	No	Yes	No	No
ContractFee	No	Yes	No	No
ContractGuarantor	No	Yes	No	No
ContractParticipant	No	Yes	No	No
ContractPenalty	No	Yes	No	No
ContractReevaluation	No	Yes	No	No
ContractRepaymentSchedule	No	Yes	No	No
ContractRepaymentScheduleDetail	No	Yes	No	No
ContractRepaymentScheduleDisb	No	Yes	No	No
ContractRepaymentScheduleVersion	No	Yes	No	No
CreditFacility	No	Yes	No	No
CreditFacility_BW	No	Yes	No	No
CreditFacilityAccrual	No	Yes	No	No
CreditFacilityDetail	No	Yes	No	No
CreditFacilityFee	No	Yes	No	No
CreditFacilityFeeValue	No	Yes	No	No
CreditFacilityParticipant	No	Yes	No	No
CreditFacilityPlan	No	Yes	No	No
CreditFacilityProduct	No	Yes	No	No
CustomerLimit	Yes	Yes	Yes	Yes
CustomerLimit_BW	Yes	Yes	Yes	Yes

Entity	Insert	Read	Update	Delete
CustomerLimitType	Yes	Yes	Yes	Yes
OperationItem	No	Yes	No	No
Payment	No	Yes	No	No
PaymentAllocation	No	Yes	No	No
PaymentNotification	No	Yes	No	No
PeriodicityType	No	Yes	No	No
RepaymentNotification	No	Yes	No	No
RepaymentNotificationDetail	No	Yes	No	No
VersioningReason	No	Yes	No	No
WeekDay	No	Yes	No	No
AccountType	No	Yes	No	No
Action	No	Yes	No	No
Activity	No	Yes	No	No
Currency	No	Yes	No	No
EntityStatusSettings	No	Yes	No	No
AccountingEntry	No	Yes	No	No
TransactionType	No	Yes	No	No
Activity	No	Yes	No	No
Agreement	No	Yes	No	No
Agreement_BW	No	Yes	No	No
AgreementPricing	No	Yes	No	No
Invoice	No	Yes	No	No
Invoice_BW	No	Yes	No	No
InvoiceDetail	No	Yes	No	No
VersionSettings	Yes	Yes	Yes	No

A user with this security role can access the following endpoints:

Endpoints
FTOS_BP_CheckFromToDates
FTOS_BP_CheckMandatoryRoleXLimitType
FTOS_BP_CommissionSchemaDetail
FTOS_BP_GetBankingProductInfo
FTOS_BP_GetCommissionInfo
FTOS_BP_GetCommissionTypeInfo
FTOS_BP_GetPeriodicityTypeInfo
FTOS_BP_GetProductInterestCommissionList
FTOS_CB_CalculateContractCustomValues
FTOS_CB_CalculateInvoiceAmounts

Endpoints
FTOS_CB_CalculateMaturityDate_BA
FTOS_CB_CheckCustomerRole
FTOS_CB_CheckInvoiceHasDetails
FTOS_CB_CheckLimitTypeRole
FTOS_CB_DisplayFinancedAmountEventForm
FTOS_CB_EditContractPenaltyInterestRate
FTOS_CB_EntityVersion_Agreement
FTOS_CB_EntityVersion_Contract
FTOS_CB_EntityVersion_CustomerLimit
FTOS_CB_getBandedInterestObject
FTOS_CB_GetBlockAmountOnContract
FTOS_CB_GetClosureOfContracts
FTOS_CB_GetCommissionDetail
FTOS_CB_GetContractEventEditUrl
FTOS_CB_GetContractEventFee
FTOS_CB_GetContractInfo
FTOS_CB_GetContractRepaymentSchedule
FTOS_CB_GetContractsForLimit
FTOS_CB_GetCreditFacilityInfo
FTOS_CB_GetCreditFacilityLimitPercent
FTOS_CB_GetDataSourceChartAgreement
FTOS_CB_GetDataSourceChartContractOverview
FTOS_CB_GetDataSourceChartCreditFacility_LoanOfficerAdminRetail
FTOS_CB_GetDataSourceClosingContractsChart
FTOS_CB_GetDataSourceFutureInstallmentsReport
FTOS_CB_GetDataSourceNewContractsChart
FTOS_CB_GetDataSourcePastDueInstallmentsReport
FTOS_CB_GetEarlyRepaymentValues
FTOS_CB_GetExchangeRate
FTOS_CB_GetGLOnContract
FTOS_CB_GetGroupInfo
FTOS_CB_GetInstallment_Principal_InstallmenNo_Values
FTOS_CB_GetInterestReferencePeriod
FTOS_CB_GetInvoiceDetails
FTOS_CB_GetLimitTypeByCustomer
FTOS_CB_GetNoOfContractTranches
FTOS_CB_GetNoOfCurrentAccountsForCurrencyId
FTOS_CB_GetProductInterestValue

Endpoints
FTOS_CB_GetProductMinInterestRate
FTOS_CB_GetReasonDetails
FTOS_CB_GetSalesChannelByName
FTOS_CB_GetSystemInvariantDate
FTOS_CB_GetSystemParameter
FTOS_CB_GetTransactionTypeByCode
FTOS_CB_PaymentHolidaySchedule
FTOS_CB_PaymentScheduleFields
FTOS_CB_PaymentScheduleFieldsDisb
FTOS_CB_PeriodicityType
FTOS_CB_ScheduleVersionFields
FTOS_CB_UpdateActivationDate
FTOS_GetDataSourceChartContract
FTOS_GetDataSourceChartContractEvents
FTOS_GetDataSourceChartCreditFacility
FTOS_TPM_CalculateCommissionAppliedTo
FTOS_TPM_CallFormula
FTOS_TPM_GetAgreementBusinessStatusDisplayName
FTOS_TPM_GetAgreementCommissionsDetails
FTOS_TPM_GetAgreementDetails
FTOS_TPM_GetInvoiceDetailContracts
FTOS_TPM_GetTransactionTypesForClawback
FTOS_VerifyUsersCompetence

## Async Engine Admin

A user with this security role can access the **DLQ Messages** dashboard and the following endpoints:

Endpoint
FTOS_AE_GetMessagesFromQueues
FTOS_AE_ReprocessMessage

# Banks

A bank is a financial institution licensed to receive deposits and make loans. Loan Management needs to have some basic information about your main bank or financial institution and your branches network, as well as about other banks or financial institutions with whom you are in a business relationship. Such information includes name, bank identification, branches, and bank accounts.

To manage bank records in Loan Management:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Bank** menu item to open the **Banks List** page.

BANKS LIST	
<input type="checkbox"/>	Name
Q	
	AnotherBank
	FintechOS Bank
	FintechOS Branch Bucharest
	FintechOS Branch London
	FintechOS Branch Paris

On the **Banks List** page, you can add new bank records or search, edit, and delete existing ones. You can also [create external bank accounts](#) for customers.

## Creating Bank Records

Follow these steps to create new bank records:

1. Click **Insert** on the **Banks List** page to display the **Add Bank** page.
2. Fill in the following fields:



ADD BANK

Bank

Name

FintechOS Bank

Swift/BIC

FINTECHR

Main Bank

☒

Branch Code

FIN

Parent Bank

↓

- **Name** - Enter the name of the bank/ financial institution.
  - **Main Bank** - If the checkbox to mark this record as the main bank, the one where all bank accounts are created when a new contract is approved.
3. Optionally, insert the following information:
- **Swift/BIC** - Enter the SWIFT / BIC codes of the bank (maximum length 11 characters).
    - First 4 characters - Represent the bank code (alphabetic)
    - Next 2 characters - ISO 3166-1 alpha-2 country code (alphabetic)
    - Next 2 characters - Location code (alphanumeric) (passive participants have 1 in the second character)
    - Last 3 characters - Determine the branch code, optional (XXX for main branch/ office) (alphanumeric)
  - **Parent Bank** - Select the parent bank of the new record if the newly entered bank is a branch.
  - **Branch Code** - Enter the code of the branch (maximum length 4 characters).
4. Click the **Save and Reload** button. The bank record is saved and the **Bank Accounts** section is displayed.

For an existent bank record, view all the accounts opened for that bank record in your system within the **Bank Accounts** section. If the bank is marked as **Main Bank**, then all the accounts created for customers when approving a new contract are listed here. Each account shows the alias, the number, and the status of the bank account.

### Bank Accounts

<input type="checkbox"/> Alias	Bank Account Number	Account Status
<input type="text" value="Q"/>	<input type="text" value="Q"/>	<input type="text" value="Q"/>
FIN000000972	FIN000000972	Opened
FIN000000973	FIN000000973	Closed
FIN000000978	FIN000000978	Opened
FIN000000987	FIN000000987	Closed
FIN000000991	FIN000000991	Closed

5

10

20

1

...

3

4

5

6

...

## Creating External Bank Accounts

You can create bank accounts opened at banks other than your main bank. These accounts are known as `external` accounts, being marked with attribute `isExtern = True`, and they are created within your system, without interfering with the other bank's accounts.

Follow these steps to create new external bank accounts:

1. On the **Banks List** page, double-click the desired bank record to edit it.
2. On the newly displayed **Edit Bank** page, make sure the bank is not marked as **Main Bank**.
3. Under the **Bank Account** section, click the **Insert** button to open the **Add Bank Account** page.
4. Fill in the following fields:

ADD BANK ACCOUNT

Bank

FintechOS Branch Bucharest

↓

Currency

EUR

↓

Bank Account Number

999900009988337

Overdraft Limit Amount

Customer

Al Carter

↓

Account Type

Current Account

↓

- **Bank** - This field is automatically completed with the bank where you are opening the external bank account.
  - **Customer** - Select the customer for whom you are opening the account.
  - **Currency** - Select the currency of the account.
  - **Account Type** - Select the type of the account. Possible values are current, savings, fixed deposit, term deposit, and loan term account.
5. Optionally, insert the following information:
    - **Bank Account Number** - Enter the bank account number recorded within the external bank's systems. This is not the bank account number in Loan Management, which is automatically generated when you save the record.
    - **Overdraft Limit Amount** - Enter an overdraft limit amount, if applicable.
  6. Click the **Save and Close** button. The external bank account record is saved in the **Opened** status and is ready to be used for referencing in bank documents.

## Sales Channels

In Loan Management, you can create contracts through different channels: the dedicated Loan Management menus in FintechOS Portal, API integration calls, or various customer journeys implemented within FintechOS accelerators. The information about the sales channel for each contract is stored at the contract level, so it can be used by financial institutions, for example for different pricing or for selling a product on a specific channel.

To manage the sales channel that your financial institution uses:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click **Sales Channels** menu item to open the **Sales Channels List** page.

SALES CHANNELS LIST

<input type="checkbox"/>	Name
	Q
	Assisted Contract
	ECommerce
	Self Service

On the **Sales Channels List** page, you can create a new sales channel record, edit an record from the list by double-clicking it, delete, export or find a record.

**IMPORTANT!**

You need to have the **Loan Admin Officer** security role attached to your user to access the **Sales Channel** menu.

## Creating Sales Channel Records

Follow these steps to create new sales channel records:

1. Click the **Insert** button on the **Sales Channels List** page to open the **Add Sales Channel** page is displayed.
2. Fill in the **Name** field with the new sales channel's desired name.

ADD SALES CHANNEL

Name

ECommerce

3. Click the **Save and Close** button. The record is now saved and you can use it to specify a contract's origin.

# Reconciliation Accounts

Reconciliation is an accounting process that compares two sets of records to check that figures are correct and in agreement. Reconciliation also confirms that accounts in the general ledger are consistent, accurate, and complete. Loan Management uses reconciliation accounts in its accounting processes and in the product service configuration as tools for monitoring the activity for a specific product or groups of products. When creating a banking product's service configuration, you must [choose a reconciliation account](#). These accounts are later [used](#) by the contracts based on those banking products when performing debit or credit transactions. Reconciliation accounts are also known as "self-bank accounts" or "internal bank accounts".

To manage reconciliation accounts:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Reconciliation Accounts** to open the **Reconciliation Accounts** page.

## RECONCILIATION ACCOUNTS

<input type="checkbox"/> Bank Account Number	Currency	Business Status
Q	Q	Q
Reconciliation HUF	HUF	Opened
Reconciliation RON	RON	Opened
Reconciliation USD	USD	Opened
Reconciliation VND	VND	Opened
special fund eur	EUR	Opened

5 10 20
 1 2 3 4 5 6 7 8

On the **Reconciliation Accounts** page, you can create a new reconciliation account record, edit an record from the list by double-clicking it, delete, export or find a record. You can also view the debit and credit operations performed through each reconciliation account by double-clicking the desired account and observing the **Debit Operations** and **Credit Operations** sections.

## EDIT BANK ACCOUNT

### Main Information

Bank FintechOS Bank	Internal Bank Account <input checked="" type="checkbox"/>	Currency EUR	Bank Account Number Reconciliation EUR	Initial Balance 999,750,216,843.04
------------------------	--	-----------------	---	---------------------------------------

### Debit Operations

[Export](#) [Refresh](#)

<input type="checkbox"/> Value date	Operation date	Currency	Amount	Detail text
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05/07/2023 16:28	05/07/2023 16:28	EUR	1,200.00	Replenish Advance 9334
05/07/2023 16:28	05/07/2023 16:28	EUR	10,000.00	Disburse 9334
05/07/2023 16:24	05/07/2023 16:24	EUR	33.22	Paid Interest 2023-07-05
05/07/2023 16:24	05/07/2023 16:24	EUR	33.22	Paid Interest 2023-07-05
05/07/2023 16:24	05/07/2023 16:24	EUR	33.01	Paid Interest 2023-07-05

### Credit Operations

[Export](#) [Refresh](#)

<input type="checkbox"/> Value date	Operation date	Currency	Amount	Detail text
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05/07/2023 16:28	05/07/2023 16:28	EUR	1,200.00	Replenish Advance 9334
21/06/2023 17:49	21/06/2023 17:49	EUR	1,200.00	Replenish Advance 9352
21/06/2023 16:36	21/06/2023 16:36	EUR	7,839.00	Withdraw - debit current account
21/06/2023 16:36	21/06/2023 16:36	EUR	1,200.00	Replenish Advance 9337
12/03/2023 15:17	12/03/2023 15:17	EUR	402.31	9085.19installment 9

## NOTE

You can open reconciliation accounts in every currency, but for the sake of automating some processes, Loan Management allows you to define which reconciliation account opened in a specific currency should be used within a period of time. Thanks to these settings, Loan Management determines automatically the reconciliation account to be used for a currency at a specific date. Read about these settings on the ["Reconciliation Account Settings" on page 169](#) page.

## Creating Reconciliation Accounts

Follow these steps to create reconciliation accounts:

1. In the FintechOS Portal, click the **Insert** button on the top right side of the **Reconciliation Accounts** page. The **Add Bank Account** page is displayed.
2. Fill in the following fields:

**ADD BANK ACCOUNT**

Main Information

<small>Bank</small>	<small>Internal Bank Account</small>	<small>Currency</small>	<small>Bank Account Number</small>	<small>Initial Balance</small>
FintechOS Bank	<input checked="" type="checkbox"/>	HUF	Reconciliation EUR	999,999,999.99

- **Bank** - Automatically completed with the bank or financial institution marked as **Main Bank** in the system. You can't change this value.
  - **Internal Bank Account** - This checkbox specifies that the account is an internal bank account, used for reconciliation. Automatically checked as **True**. You can't change this value.
  - **Currency** - Select from the list the currency of the reconciliation account.
  - **Bank Account Number** - Enter the bank account number for the reconciliation account.
  - **Initial Balance** - Edit the reconciliation account's initial amount, which is automatically completed with the value of 999,999,999.00. You need the initial balance especially for those accounts that are used for debit purposes, representing the source for some transactions.
3. Click the **Save and Reload** button. The reconciliation account is saved and its status becomes **Opened**, ready to be used.

The **Debit Operations** and **Credit Operations** sections are now displayed, still empty. You can see new records in these two sections when transactions are performed for contracts based on banking products that use this reconciliation account. The following information is displayed about each transaction:

- **Value Date** - The date when the transaction was requested in the system.
- **Operation Date** - The date when the transaction was operated by the system.
- **Currency** - The currency of the transaction.
- **Amount** - The amount of the transaction.

- **Detail Text** - The text representing information about the transaction, such as event type, repayment notification number, due date, and so on.

## Example of Reconciliation Accounts Usage in Loan Management

Let's consider the product service configuration of the Current Account EURO banking product, where the value selected for the **Reconciliation Account** field = Reconciliation EUR:

The screenshot shows the 'Product Admin Configuration' interface with three tabs: '1 Product Admin Configuration', '2 GL Settings', and '3 History'. The 'Product Admin Configuration' tab is active. It is divided into two sections: 'Banking Product Details' and 'Self Bank Account Associated With The Product'. In 'Banking Product Details', 'Banking Product' is 'Current Account EURO', 'Product Type' is 'Curren...', and 'Currency' is 'EUR'. In 'Self Bank Account Associated With The Product', 'Reconciliation Account' is 'Reconciliation EUR' and 'Negative balance treatment' is 'NoMessage'.

Checking the balance of the Reconciliation EUR account in the Reconciliation Accounts menu, we see the **Initial Balance** = 10,000,139,541.26:

The screenshot shows the 'EDIT BANK ACCOUNT' form. It has two main sections. The left section, 'BANK ACCOUNT', includes 'Bank' (FintechOS Bank), 'Currency' (EUR), and 'Initial Balance' (10,000,139,541.26). The right section, 'Internal Bank Account', includes a checked 'Internal Bank Account' checkbox, 'Bank Account Number' (Reconciliation EUR), and a 'Bank Account Number' field.

Using an approved contract based on the Current Account EURO banking product, we inserted and approved a **Top-Up Account** transaction type, with an **Event Value** = 300:

The screenshot shows the 'TopUp' transaction form. It has two main sections. The left section, 'Actual Balance', includes 'Actual Balance' (0) and 'Event Value' (2,000). The right section, 'Event Date', includes 'Event Date' (10/03/2022), 'External Identifier' (empty), and 'Source Account' (999999990000011).

Checking back to the Reconciliation EUR account in the Reconciliation Accounts menu, the balance of the reconciliation account is updated to reflect the transaction just inserted above. The new balance value is



10,000,139,241.26, with a difference of -300 from the previous value. Observe that the same debit transaction is listed in the **Debit Operations** section:

EDIT BANK ACCOUNT

BANK ACCOUNT

Bank

FintechOS Bank

Currency

EUR

Initial Balance

10,000,139,241.26

Internal Bank Account

☒

Bank Account Number

Reconciliation EUR

DEBIT OPERATIONS

Export

Refresh

<input type="checkbox"/>	Value date	Operation date	Currency	Amount	Detail text
	Q	Q	Q	Q	Q
	30/09/2021 16:38	30/09/2021 16:38	EUR	300.00	top up credit account

## Reconciliation Account Settings

Reconciliation accounts can be opened in every currency, but for the sake of automating some processes, Loan Management allows you to define which reconciliation account opened in a specific currency should be used within a period of time. Thanks to these settings, Loan Management determines automatically the reconciliation account to be used for a currency at a specific date. For example, it validates the existence of a setting for a reconciliation account for a specific currency upon third-party agreement or agreement version approval. Loan Management also checks whether the reconciliation account setting has continuity for the entire validity period of the agreement. The reconciliation account is then automatically determined for usage within the third-party invoicing process.

The **Reconciliation Account Settings** menu item, accessible within the Portal's **Admin Configurations** menu, allows you to configure the default settings of reconciliation accounts.

**IMPORTANT!**

You must have the associated role of [Loan Admin Officer](#) to view, insert, update, or delete reconciliation account settings records.

To configure the default settings of reconciliation accounts:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click the **Reconciliation Account Settings** menu item to open the **Reconciliation Account Settings List** page.

**RECONCILIATION ACCOUNT SETTINGS LIST**

<input type="checkbox"/>	Name	Currency	Reconciliation Account	Start Date	End Date	
	🔍	🔍	🔍	🔍	📅 🔍	🗑️
	RON 2022-03-18	RON	Reconciliation RON	18/03/2022	31/12/2025	
	USD 2022-02-06	USD	Reconciliation USD	06/02/2022	26/02/2022	
	USD 2022-02-27	USD	Reconciliation USD	27/02/2022	28/02/2022	
	USD 2022-03-01	USD	Reconciliation USD	01/03/2022	02/03/2022	
	USD 2022-03-03	USD	Reconciliation USD	03/03/2022	04/03/2022	

On the **Reconciliation Account Settings List** page, you can create a new reconciliation account setting, edit an record from the list by double-clicking it, delete, export or find a record.

**NOTE**

You can only delete a setting if the reconciliation account associated to it is not part of a third-party invoice.

You can only edit the End Date of a setting if the reconciliation account associated to it is part of a third-party invoice. The End Date must be  $\geq$  than the current system date.

## Creating Reconciliation Account Settings

Follow these steps to create reconciliation account settings:

1. Click **Insert** on the **Reconciliation Account Settings List** page to open the **Reconciliation Account Settings** page.

2. Fill in the following fields:

Reconciliation Account Settings

<b>Currency</b> <input type="text" value="EUR"/>	<b>Reconciliation Account</b> <input type="text" value="FTOSEUR-000063019"/>
<b>Start Date</b> <input type="text" value="01/08/2022"/>	<b>End Date</b> <input type="text" value="31/08/2022"/>

- **Currency** - Select from the list the currency of the reconciliation account.
- **Reconciliation Account** - Select the reconciliation account that Loan Management should automatically use for operations in the specified currency.
- **Start Date** - Select the starting date for Loan Management to use this reconciliation account for operations in the specified currency.
- **End Date** - Select the ending date for Loan Management to use this reconciliation account for operations in the specified currency. Make sure that End Date >= Start Date.

3. Click the **Save and Reload** button.

Loan Management checks whether the start dates and end dates don't overlap for reconciliation accounts defined for the same currency. If the validation passes, the reconciliation account setting is saved with a unique name in the form of Currency Code + Start Date.

# Product Service Configurations

Banking product must have a series of configurations in place before being used in contracts. These configurations, known as product service configurations, define defaults for reconciliation accounts, payment allocation settings, mandatory roles on contracts, allowed transactions, general ledger accounts, and so on.

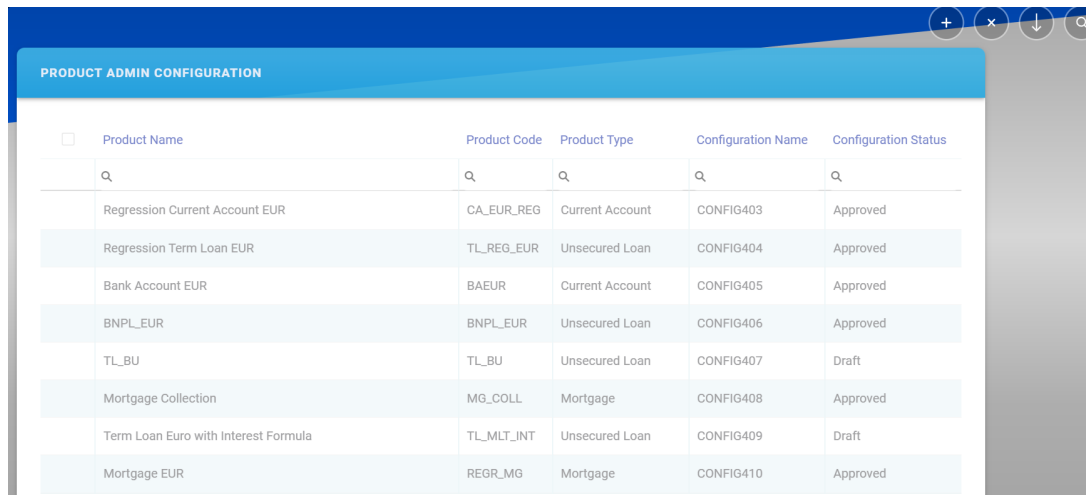
**IMPORTANT!**

You must define the product service configuration for a banking product before using that product to create contracts.

## Managing Banking Product Service Configurations

To manage banking product service configurations:

1. In FintechOS Portal, click the main menu icon and navigate to **Admin Configurations > Product Admin Configuration** menu to open the **Product Admin Configuration** page.  
The page displays a list of all the banking products that already have a product service configuration in Draft or Approved status attached to them.



The screenshot shows a web application window titled "PRODUCT ADMIN CONFIGURATION". It contains a table with the following columns: Product Name, Product Code, Product Type, Configuration Name, and Configuration Status. The table lists ten configurations, including "Regression Current Account EUR", "Regression Term Loan EUR", "Bank Account EUR", "BNPL\_EUR", "TL\_BU", "Mortgage Collection", "Term Loan Euro with Interest Formula", and "Mortgage EUR". Each row has a checkbox on the left and a search icon on the right. The configurations are in either "Approved" or "Draft" status.

<input type="checkbox"/>	Product Name	Product Code	Product Type	Configuration Name	Configuration Status
<input type="checkbox"/>	Regression Current Account EUR	CA_EUR_REG	Current Account	CONFIG403	Approved
<input type="checkbox"/>	Regression Term Loan EUR	TL_REG_EUR	Unsecured Loan	CONFIG404	Approved
<input type="checkbox"/>	Bank Account EUR	BAEUR	Current Account	CONFIG405	Approved
<input type="checkbox"/>	BNPL_EUR	BNPL_EUR	Unsecured Loan	CONFIG406	Approved
<input type="checkbox"/>	TL_BU	TL_BU	Unsecured Loan	CONFIG407	Draft
<input type="checkbox"/>	Mortgage Collection	MG_COLL	Mortgage	CONFIG408	Approved
<input type="checkbox"/>	Term Loan Euro with Interest Formula	TL_MLT_INT	Unsecured Loan	CONFIG409	Draft
<input type="checkbox"/>	Mortgage EUR	REGR_MG	Mortgage	CONFIG410	Approved

On the **Product Admin Configuration** page, you can [add new product service configuration records](#), or edit and delete existing ones in Draft status.


2. Search for a product with an attached product service configuration by filling in any of the column headers in the list.
3. Double-click a record in the list to view the product service configuration details, presented on the **Product Admin Configuration** page.

### IMPORTANT!

You can manage product admin configurations only with users with Banking Product Admin or [Loan Admin Officer](#) security roles.

## View the Service Configuration of a Contract's Banking Product

You can view the product service configuration applicable to the banking product associated to a specific contract from the contract itself. At the contract level, click

the  **Open Product Admin Configuration** button in the top right corner of the page to display the information about the already set up product service configuration.

**General Data**

Contract ID	Customer	Banking Product	Currency
	Jovanny Champlin	Regression Term Loan EUR	EUR
Activation Date	Main Bank Account	Current Account	Destination Bank Account
2023/09/22	FIN000018754	FIN000018706	GeneralMerchantBA
Amount	Advance Amount Percentage	Advance Amount Value	Available Amount
10,000	10	1,000	0

**Product Admin Configuration**

NAME: CONFIG404

**Banking Product Details**

Banking Product	Product Type	Currency
Regression Term Loan EUR	Unsecur...	EUR

**Self Bank Account Associated With The Product**

Reconciliation Account	Negative balance treatment
EURRECONACC	NoMessage

**Closing Contract Settings**

Buffer Close Days	Close Real Time	Closing Is Flexible
0	<input type="checkbox"/>	<input type="checkbox"/>


Contract Is Closed Automatically ☒

**Payment Allocation Settings**

Repayment Allocation Method	Grace Days for Repayment	Penalty for grace period
CostOrder		<input type="checkbox"/>

Direct Debit Settlement Account ☒

## NOTE

To edit an approved product service configuration record, create a new version of the record using the  button at the top right side of the **Product Admin Configuration** page.

# Product Service Configuration Life Cycle and States

The four-eyes principle is applicable for all contracts in FintechOS Loan Management, meaning that a record should be approved by a second financial institution employee, with higher authorization rights. This is enabled via approval task FintechOS Platform capabilities and thus it is also a financial institution's responsibility to set proper [security roles](#) and access rights to its users, in order to make sure that the same user can't insert and also authorize the same record.

A product service configuration record has the following business workflow statuses:

- **Draft** - the status of a newly created product service configuration record that was not yet sent for approval. While in this status, you can edit some fields and associate a product to it, but you can't use those products to create contracts. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a product service configuration record after being authorized by a user with product service configuration approval competencies. While in this status, you cannot edit the record's details, but you can use the associated product to create contracts. If you need to alter the product service configuration's details, create a new version based on the current one.
- **Unapproved** - the status of a product service configuration after manually canceling it straight from the **Draft** status. No updates are allowed on the record.

**NOTE**

Change the product service configuration's status to **Approved** so that the product associated to it can be used to create contracts.

**NOTE**

A new product service configuration record is automatically created in **Version Draft** status each time a product associated to it is versioned. When the product in **Version Draft** status gets approved, the product service configuration record is automatically transitioned to **Approved** status.

## Product Service Configuration Versioning

Loan Management allows you to create new versions for an existing product service configuration record if you need to modify an existing approved record.

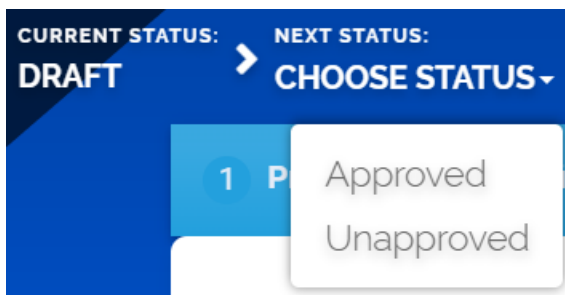
A product service configuration version can have the following statuses:

- **Version Draft** - the status of a newly created product service configuration version record that was not yet sent for approval. While in this status, you can edit some fields and associate a product to it. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a product service configuration version record after being authorized by a user with product service configuration approval competencies. While in this status, you cannot edit the record's details.


- **Version Closed** - the last status of a product service configuration version, after creating another new version based on the current version. No updates are allowed on the record.
- **Version Unapproved** - the status of a product service configuration after manually canceling it straight from the **Version Draft** status. No updates are allowed on the record.

## Changing Product Service Configuration Statuses

You can manage a product service configuration's life cycle by changing its status from the top right corner of the screen.

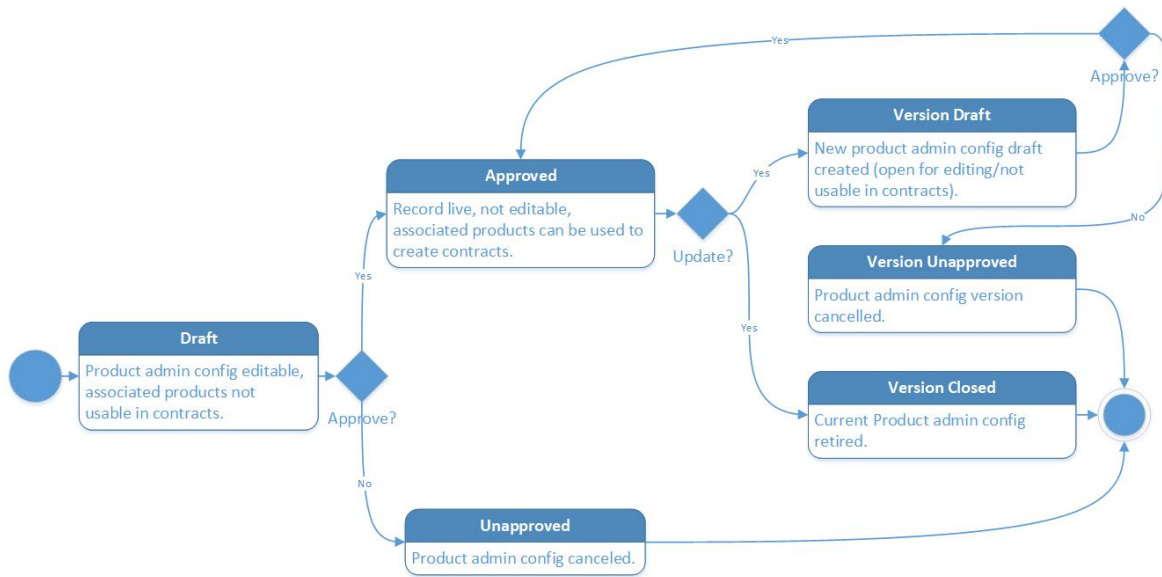


### NOTE

To edit an approved record, create a new version of the record using the  button at the top right side of the **Product Admin Configuration** page.

The product service configuration status transitions are illustrated below:





Note that:

- Once a record is live, its settings can no longer be modified.
- If you want to update the details of a live product service configuration, you must create a new product service configuration version.
- When you create a new product service configuration version, the current version is retired and moved to history; no updates are allowed on the retired version.
- Every product service configuration version starts in a draft state and must go through an approval process before going live.
- Only one version of a product service configuration can be live at one time.

#### NOTE

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

# Creating A New Product Service Configuration

Banking products can only be used in contracts if they are attached to a product service configuration record in **Approved** status. Make sure you create for each banking product that you want to use in contracts a product service configuration record.

To create a new product service configuration:

## 1. Attach a Banking Product to the Configuration

1. Open the **Products with Service Configs** page as described in the [Managing Banking Product Service Configurations](#) section.
2. Click the **Insert** button to display the **Product Admin Configuration** page, where you can set the desired Loan Management-related product configurations.

The screenshot displays the 'Product Admin Configuration' page with three tabs: '1 Product Admin Configuration', '2 GL Settings', and '3 History'. The 'Product Admin Configuration' tab is active. It contains several sections:

- Banking Product Details:** Includes dropdown menus for 'Banking Product', 'Product Type', and 'Currency'.
- Closing Contract Settings:** Includes a 'Buffer Close Days' input field (set to 0), and checkboxes for 'Close Real Time' and 'Closing Is Flexible'.
- Contract Is Closed Automatically:** A checkbox that is checked.
- Payment Allocation Settings:** Includes a 'Repayment Allocation Method' dropdown (set to 'Select a value...'), a 'Grace Days for Repayment' input field, and a 'Penalty for grace period' checkbox.
- Direct Debit Settlement Account:** A checkbox that is checked.
- Mandatory Roles for Contract Approval:** A section at the bottom left.
- Allowed Transactions:** A section at the bottom right.

3. On the page's **Product Admin Configuration** tab, within the **Banking Product Details** section, decide for which banking product you want to create the configuration, filling in the following fields:

- **Banking Product** - Click the down arrow next to this field to open the list of approved banking products that don't have a service configuration yet.

#### NOTE

An empty list indicates that there are no approved banking products of the selected type and currency which are not yet attached to a configuration.

- **Product Type** and **Currency** - These fields are automatically filled with the selected banking product's type and currency and can't be changed.

#### NOTE

The banking product's type influences the next steps and many of the fields are automatically completed with values inherited from the product type definition. Some sections of the page appear only for certain banking product types, so make sure you select the desired banking product first.

4. Click the **Save and Reload** button.

Loan Management saves the product service configuration in **Draft** status, with minimum default information, such as an auto-generated record number, created by, or allowed transaction types defaulted from the selected banking product type. The **History tab** is displayed after saving the record, allowing you to view relevant version information.

Proceed to the next steps where the details about the specific configurations are captured.

## 2. Select Reconciliation Account

Each banking product must be associated to a bank account to be used for transactions, for money movements. This is known as a reconciliation account. The reconciliation account must have the same currency as the product, because the conversions are performed from and into this account.

1. In the **Self Bank Account Associated with the Product** section, fill in the **Reconciliation Account**, selecting from the drop-down list the reconciliation account to be used for the banking product attached to this configuration. The list is already filtered to display only the accounts in the previously selected product's currency.

2. Select a value for the **Negative Value Treatment** drop-down to specify how Loan Management treats situations when the funds of the reconciliation account associated with the banking product used in the contract would go below zero if a disbursement event would be

approved. The possible values are:

- **Error** - there is an error message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can't be approved and the balance can't go below zero. Select this value if you want to block any transactions that would result in a negative balance of the reconciliation account associated to the banking product.
- **Warning** - there is a warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.
- **NoMessage** - there is no error or warning message displayed if the disbursement event that is being approved would result in a negative balance of the associated reconciliation account. The event can be approved and the balance can go below zero.

**NOTE** The `ReconciliationAccountTreatment` system parameter is a system-wide setting, applicable to events for contracts based on all banking products without a specified `Negative balance treatment` value. Loan Management takes into consideration the settings used at the product service configuration level (the `Negative balance treatment` field's value). Thus, if the value is specified at the configuration, then that value takes precedence over the system parameter's setting.

3. Click the **Save and Reload** button.

### 3. Configure Closing Contract Settings

Configure the default closure settings for contracts based on the banking product with this service configuration.

### Closing Contract Settings

Buffer Close Days	Close Real Time	Closing Is Flexible
<input type="text" value="10"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Contract Is Closed Automatically

☒

- In the **Closing Contract Settings** section, fill in the following fields:
  - Buffer Close Days:** Enter the number of days used as buffer before automatically closing the contract when the contract reaches maturity and its balance reaches zero. If Buffer Close Days > 0, then Contract Is Closed Automatically = False.
  - Close Real Time:** If you select this checkbox, the contract based on a banking product with this configuration is closed in real-time, when the contract reaches maturity and its balance reaches zero, without waiting for the end of day processes. If Close Real Time = True, then Buffer Close Days = 0 and Contract Is Closed Automatically = True.
  - Closing Is Flexible:** If you select this checkbox, the closure details of the contract can be modified at the contract creation.
  - Contract Is Closed Automatically:** If you select this checkbox, the contract is closed automatically at maturity, if the balance reaches zero. If Contract Is Closed Automatically = False, then Close Real Time = False.
- Click the **Save and Reload** button.

## 4. Configure Payment Allocation Settings

In the **Payment Allocation Settings** section you can decide which allocation method should be used to determine the order in which credit items are prioritized when repaying loans, credit accounts, and so on. You can also define the grace period settings for contracts based on the banking product with this service configuration.

### Payment Allocation Settings

Repayment Allocation Method	Grace Days for Repayment	Penalty for grace period
<div>CostOrder</div> <div>↓ ✎</div>	<div>5</div>	<input type="checkbox"/>
Direct Debit Settlement Account		
<input checked="" type="checkbox"/>		

1. Fill in the following fields:

- **Payment Allocation Method:** The payment allocation method represents the recovery order of amounts from payment notifications. Select a payment allocation method from the list.
- **Grace Days for Repayment:** Insert the number of days for which the bank expects a payment without calculating penalty.
- **Penalty for grace period:** If you select the checkbox, the penalty interest is applied on the loan contract without taking into consideration the grace period defined at contract level, being calculated for the difference between system date - due date, if the grace period passed and the customer didn't pay the due amounts. If you leave this checkbox unselected, the penalty interest is applied on the loan contract taking into consideration the grace period defined at contract level, being calculated for system date - due date + grace days for repayment.
- **Direct Debit Settlement Account:** If you select the checkbox, the banking product with this configuration has the automated settlement of repayment notification functionality (the payment allocation) turned on by default at the contract level. You can turn the automated settlement off either at the product service configuration level or at the contract level. Default value: true.

#### NOTE

The automated settlement of repayment notification, or direct debit settlement account, is the functionality

whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Loan Management automatically uses the available balance up to full settlement of repayment notifications.

The automated settlement of Installment type repayment notification functionality (the payment allocation) can be turned on or off, thus allowing the financial institution to manage the contracts in case of blocked accounts and control the allocation of funds to outstanding notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

If the functionality is turned off, the contract is pending for manual allocation. You can turn it back on and leave Loan Management to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications.

2. Click the **Save and Reload** button.

## 5. Decide Mandatory Roles for Contract Approval

You can add the roles of the participants that are mandatory to exist at the contract level for contracts based on the banking product with this configuration. In other words, when creating contracts based on banking



products with service configuration with Merchant role, you must add a customer with the same Merchant role as contract participant, otherwise, the contract cannot be approved. When Search Limit is selected for a role, Loan Management checks if the contract participant with this role has an attached limit configured with a [limit type associated to the same role](#), in this case Merchant Exposure.

#### Mandatory Roles for Contract Approval

1. In the **Mandatory Roles for Contract Approval** section, click **Insert** to open the **Add Mandatory Roles** page and fill in the following fields:

- **Role:** Select the role of the participants that are mandatory to exist at the contract level for contracts based on banking products with this configuration.
- **Search Limit:** When Search Limit is selected for a role on a banking product, Loan Management checks if the contract participant with this role has an attached limit configured with a limit type associated to the same role.  
If you select a role not associated with a customer limit type in Loan Management, the Search Limit field becomes read-only and unselected.

2. Click the **Save and Reload** button.

## 6. Set Allowed Transactions

Loan Management automatically displays in the **Allowed Transactions** section the transaction types associated with the type of the selected banking product. If you need to associate other transaction types to this product service configuration, follow these steps:

1. Click **Insert existing** and select the desired transaction types to be associated with the product service configuration record.
2. To remove a transaction type from the record, select the empty checkbox next to it and click **Remove existing**.
3. Double-click a selected transaction type if you wish to edit it.

4. In the **Edit Transaction Type > Settings** section, fill in the following fields:
  - **Name:** Enter the name of the transaction type.
  - **Transaction Code:** Enter the code of the transaction type.
  - **Process Type:** This field associates the process type with the transaction operation type, which makes the connection with the transaction motor of bank accounts. Select one of the processes defined within the system.

**NOTE** There is no integration at this point with a payment gateway.

- **Edit Form:** Select the form used to edit this transaction type. You can choose only from the forms defined on the Contract Event entity.
- **Transaction Operation Type:** The transaction operation type makes the connection with the transaction motor of bank accounts. Select one of the transaction operation types defined within the system.
- **Is System Transactions:** If you select this checkbox the transaction is marked as being neither a credit of the account, nor an allocation of funds, but a transaction that does not influence other transactions within the account. System transactions are meant to be used only for accounting.
- **Is Automatic Transaction:** If you select this checkbox here, then you cannot select it within the contract operations. The **Is Automatic Transaction** checkbox marks the transaction as automatic.
- **Real Time Process:** This checkbox marks the transaction as to be processed in real-time. If selected, then the transaction is processed right away. If not selected, then the transaction is inserted as a [bank account transaction queue](#) record.
- **Only One Draft:** If you select this checkbox, there can be only one record of this transaction type in Draft status created at the contract level.
- **Generate New Contract Version:** This checkbox allows you to specify if a new contract version should be generated by this transaction type.
- **Commission Type:** Select the commission type applicable for this transaction type. Return fee commissions are filtered out and can't be selected.
- **Return Commission Type:** Select the return fee commission type applicable for this transaction type. Only return fee commissions can be selected.

- **Is Clawback Transaction:** If selected, this checkbox marks the transaction as generating a clawback commission. The transaction type is to be used in third-party management invoicing activities. Default value: `False`.
  - **Allow Backdated:** If selected, the transactions started through API calls are processed/ reprocessed with the intended dates, otherwise they are processed with the system's current date. Default value: `False`.
5. In the **Edit Transaction Type > Accounting Configurations** section, fill in the following fields:
    - **Generates Accounting Entry:** Select this checkbox to create an entry in the Subledger. It generates records in the Accounting Entry entity.
    - **OL Master Entity:** Select the entity referenced by the accounting systems.
  6. In the **Edit Transaction Type > Purge Configurations** section, fill in the following fields:
    - **To Be Purged:** This checkbox marks the transaction as purgeable. If you select it, you can purge or archive records in `Draft` status.
    - **Purge Number of Days:** Enter the default number of calendar days that a record can be kept in `Draft` status before it is purged. For additional information, see the [System Parameters](#) page. This field is displayed only when `To Be Purged = True`.
    - **Master Purge Entity:** Select the master purge entity under which the draft records are. This field is displayed only when `To Be Purged = True`.
  7. You can also edit the information in the **Transaction Value Types**, **Transaction Item Accounting Configurations** and **Transaction Accounting Models** sections. Read more details about Transaction Types in the [Subledger](#) User Guide.
  8. Click the **Save and Close** button.

## Transaction types typically used for different banking product types

### Term loans

- **Accruals and Provisions** - System transaction.  
If added at product service configuration level, the accruals and provisions for contracts can be calculated on a daily basis.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Disbursement** - If added at product service configuration level, the requested funds are transferred into the customer's account.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Early repayment** - If added at product service configuration level, the customer can make a payment earlier than the stated maturity date of the contract.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Payment Holiday** - If added at product service configuration level, the official bank holidays are considered when calculating a payment schedule.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Repayment** - If added at product service configuration, the customer can make a payment to cover the scheduled repayment amount.  
This transaction type is not added automatically.

Make sure you insert it in the **Allowed Transactions** tab.

- **Repayment Notification** - If added at product service configuration level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Reschedule Overdues** - If added at product service configuration level, the system extends or adds extra time to an existing contract.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Reschedule Debt** - If added at product service configuration level, the system recalculates the entire payment schedule by extending the time period for loan repayment.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Returned Amount or Goods** - If added at product service configuration level, the Returned Amount of Goods transaction type can be used when a customer returns all or part of a loan in a short while after contract creation. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower.  
This transaction type is not added automatically.  
Make sure you select the Allow Return Of Goods

checkbox in the **Return of Goods** section within the **Allowed Transactions** tab.

- **Revert Disbursement** - If added at product service configuration level, disbursements performed at contract level can be reverted after being performed.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Revert Transfer between my bank accounts** - System transaction. If added at product service configuration level, transfers between the same customer's bank account can be reverted after being performed.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.
- **WriteOff** - If added at product service configuration level, non-performing loans can be written-off in Loan Management, either manually or automatically.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab. If you've added the WriteOff transaction, then you must also specify the **Write Off Account** within the **Write Off** section.

## Mortgage loans

- **Accruals and Provisions** - System transaction.  
If added at product service configuration level, the accruals and provisions for contracts can be calculated on a daily basis.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Disbursement** - If added at product service configuration level, the requested funds are transferred into the customer's account.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Early repayment** - If added at product service configuration level, the customer can make a payment earlier than the stated maturity date of the contract.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **LoanContract** - If added at product service configuration level, the loan contract accounting entries are generated automatically by the system when the contract is approved.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Payment Holiday** - If added at product service configuration level, the official bank holidays are considered when calculating a payment schedule.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions**



tab.

- **Repayment** - If added at product service configuration level, the customer can make a payment to cover the scheduled repayment amount. This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Repayment Notification** - If added at product service configuration level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off. This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Returned Amount or Goods** - If added at product service configuration level, the Returned Amount of Goods transaction type can be used when a customer returns all or part of a loan in a short while after contract creation. You can set up Return Fee type commissions, to return all or some of the claimed commission to the borrower. This transaction type is not added automatically. Make sure you select the Allow Return Of Goods checkbox in the **Return of Goods** section within the **Allowed Transactions** tab.
- **Reschedule Overdues** - If added at product service configuration level, the system extends or adds extra time to an existing contract. This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Reschedule Debt** - If added at product service configuration level, the system recalculates the entire payment schedule by extending the time period for loan repayment.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Revert Disbursement** - If added at product service configuration level, disbursements performed at contract level can be reverted after being performed.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Revert Transfer between my bank accounts** - System transaction. If added at product service configuration level, transfers between the same customer's bank account can be reverted after being performed.  
This transaction type is not added automatically.  
Make sure you insert it in the **Allowed Transactions** tab.
- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.

## Overdrafts

- **Accruals and Provisions** - System transaction. If added at product service configuration level, the accruals

and provisions for contracts can be calculated on a daily basis. This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Disbursement** - If added at product service configuration level, the requested funds are transferred into the customer's account.  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Overdraft Payment** - If added at product service configuration level, the customer can perform payments from the current account using the overdraft functionality, practically using an amount larger than the positive balance of the account, up to the overdraft limit defined at the contract level.  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Early repayment** - If added at product service configuration level, the customer can make a payment earlier than the stated maturity date of the contract.  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Payment Holiday** - If added at product service configuration level, the official bank holidays are considered when calculating a payment schedule.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Repayment** - If added at product service configuration level, the customer can make a payment to cover the scheduled repayment amount.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Repayment Notification** - If added at product service configuration level, the system generates and displays in the contract a repayment notification after each disbursement, containing the total amount to be paid off.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Reschedule Overdues** - If added at product service configuration level, the system extends or adds extra time to an existing contract.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Reschedule Debt** - If added at product service configuration level, the system recalculates the entire payment schedule by extending the time period for loan repayment.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Revert Disbursement** - If added at product service configuration level, disbursements performed at contract level can be reverted after being performed.  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Revert Transfer between my bank accounts** - System transaction. If added at product service configuration level, transfers between the same customer's bank account can be reverted after being performed.  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.  
This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Withdrawals** was selected at the banking product type level.

## Bank accounts

- **Top Up Account** - If added at product service configuration level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next

maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date. This transaction type is automatically added in the **Allowed Transactions** tab if Allow Top Ups was selected at the banking product type level.

- **Withdraw** - If added at product service configuration level, the customer is allowed to make withdrawals at the contract level.

This transaction type is automatically added in the **Allowed Transactions** tab if Allow Withdrawals was selected at the banking product type level.

- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.

This transaction type is automatically added in the **Allowed Transactions** tab if Allow Withdrawals was selected at the banking product type level.

- **Accruals and Provisions** - System transaction. If added at product service configuration level, the accruals and provisions for contracts can be calculated on a daily basis.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Revert Transfer between my bank accounts** - System transaction. If added at product service configuration level, transfers between the same customer's bank account can be reverted after being performed.

This transaction type is not added automatically.

Make sure you insert it in the **Allowed Transactions** tab.

## Current accounts with overdraft

- **Top Up Account** - If added at product service configuration level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date.

This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Top Ups** was selected at the banking product type level.

- **Withdraw** - If added at product service configuration level, the customer is allowed to make withdrawals at the contract level.

This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Withdrawals** was selected at the banking product type level.

If this transaction type is not inserted for deposits, in order to have access to the funds before maturity date, the customer has to liquidate the deposit. In this case the interest is not paid.

- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.

This transaction type is automatically added in the **Allowed Transactions** tab if Allow Withdrawals was selected at the banking product type level.

- **Accruals and Provisions** - System transaction. If added at product service configuration level, the accruals and provisions for contracts can be calculated on a daily basis.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Overdraft Payment** - If added at product service configuration level, the customer can perform payments from the current account using the overdraft functionality, practically using an amount larger than the positive balance of the account, up to the overdraft limit defined at the contract level.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Revert Transfer between my bank accounts** - System transaction. If added at product service configuration level, transfers between the same



customer's bank account can be reverted after being performed.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

- **Interest capitalization** - System transaction. If added at product service configuration level, the interest for contracts can be capitalized.

This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.

## Deposits

- **Top Up Account** - If added at product service configuration level, the customer is allowed to make top ups at the contract level. When a top up transaction is recorded in a contract, at the next maturity date the customer receives the interest for the initial amount up until the top up date, plus the interest for the full amount (initial amount + top up amount) proportional from top up to payment date. This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Top Ups** was selected at the banking product type level.
- **Withdraw** - If added at product service configuration level, the customer is allowed to make withdrawals at the contract level.  
This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Withdrawals** was selected at the banking product type level.  
If this transaction type is not inserted for deposits, in

order to have access to the funds before maturity date, the customer has to liquidate the deposit. In this case the interest is not paid.

- **Transfer between my bank accounts** - If added at product service configuration level, the customer is allowed to move funds between their accounts at the contract level.  
This transaction type is automatically added in the **Allowed Transactions** tab if **Allow Withdrawals** was selected at the banking product type level.
- **Deposit Liquidation** - If added at product service configuration level, the deposit account can be closed and the entire amount is transferred in the current account. If the liquidation occurs at the maturity date, the interest is also paid. If the liquidation occurs in any other day before the maturity date, the customer receives the sight interest (if applicable).  
This transaction type is not added automatically. Make sure you insert it in the **Allowed Transactions** tab.
- **Early Termination Deposit** - If added at product service configuration level, the deposit can be terminated before its maturity date.  
This transaction type is not added automatically. Although not mandatory to be inserted in the **Allowed Transactions** tab, please do so in order to have a better traceability of the events that can occur.
- **Payment Deposit**- These represent automatic transactions that are generated by the system. If added at product service configuration level, the

system can perform transfers to and from the deposit within a contract.

This transaction type is not added automatically.

Although not mandatory to be inserted in the

**Allowed Transactions** tab, please do so in order to have a better traceability of the events that can occur.

## 7. Set Return Of Goods Conditions

Configure whether a contract based on the banking product with this service configuration can have Returned Amount or Goods transactions or not, and the specific conditions for these transactions. The Returned Amount or Goods transaction type should be used when a customer returns all or part of a loan or mortgage in a short while after contract creation, if the product service configuration was defined to allow such transactions. You can set up Return Fee type commissions to return all or some of the claimed commission to the borrower.

### IMPORTANT!

The **Return of Goods** section is displayed for banking product types of the following types: loans, mortgages, and leasings.

#### Return Of Goods

Allow Return Of Goods



Accepted Days For Return




Return Message



1. Fill in the following fields:

- **Allow Return Of Goods:** Select this checkbox if the contracts based on the banking product with this service configuration accept Return of Goods transactions. Default value: False.

**NOTE**

If Allow Return Of Goods = True, then the Returned Amount of Goods transaction is automatically added to the **Allowed Transactions** section.

If selected, the Accepted Days For Return and Return Message fields are displayed, otherwise, these fields are not visible.

- **Accepted Days For Return:** Specify the number of days after contract creation during which the return of goods transaction can be created and approved.
- **Return Message:** Select the behavior of messages generated by Loan Management for situations when the Returned Amount or Goods transaction's approval date + the number of accepted days for return  $\geq$  the current date. Possible values are taken from the Warning Error Treatment option set. According to the desired behavior, choose:
  - Error, if the transaction should not be approved and an error message should be displayed;
  - Warning, if the transaction can be approved, but a warning message should be displayed;
  - NoMessage, if the transaction can be approved without any messages.

2. Click the **Save and Reload** button.

## 8. Define Write Off Settings

The write off functionality is intended for non-performing loans. Loan Management can automatically write off non-performing loan contracts after their maturity day passes and the remaining value on the contract is under the specified threshold. You can also perform write-off transactions, even if the remaining amounts on the contract are above the defined threshold. The write-off transaction takes the remaining amount from the specified internal write-off account and credits the loan account.

### IMPORTANT!

The **Write-Off** section is displayed for banking product types of the following types: loans, mortgages, current accounts with overdraft, credit cards, and leasings.

In the **Write Off** section, you can configure the default write-off settings for contracts based on the banking product with this service configuration.

#### Write Off

Allow Write Off



Write Off Account Id



Reconciliat...



Write Off Threshold

15

1. Fill in the following fields:

- **Allow Write Off:** Check this box to instruct Loan Management to allow write-off transactions on contracts based on the banking product with this configuration. Default value: False.

**NOTE** The WriteOff transaction type is automatically added to the **Allowed Transactions** section if you select this option.

The following fields only appear if Allow Write Off = True:

- **Write Off Account:** Select the financial institution's internal write-off account to be used for write-off transactions for contracts based on the banking product with this configuration. The `DefaultWriteOffReconciliationAccountBankingProduct` system parameter holds the internal write-off account defined for the system's default currency and automatically populates this field, but you can change the account according to your needs.
- **Write Off Threshold:** Enter the maximum value of remaining amounts on the contract for Loan Management to perform automated write off after the contract's maturity day passes.

2. Click the **Save and Close** button.

## 9. Map the Product Formula

You can use complex formulas to calculate different elements of banking products, such as commissions and fees. Banking formulas, once included in the product definition, have to be fed with data at the customer journey level. The calculated result is later consumed within customer journeys; the resulting applicable rate can be fed into contract context.

Loan Management consumes banking formulas included in the product definition. When using a formula associated to a banking product within a contract, you must specify the formula mapping, that is the input data to be used for the formula in the context of Loan Management.

In the **Products Formula Mapping** section, if the selected banking product has one or more associated formulas, then you can configure the formula mapping for each formula.

### Product Formula Mapping

<div> <div>Export menu</div> <div>Refresh</div> </div>	
Formula	Mapping
<input checked="" type="checkbox"/>	
<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	interest-P-892bda81-1d8f-41c9-8bfc-7c75599ceaa4-T-formula-2617ba5a-f5b4-4987...

To configure the mapping:

1. In the **Products Formula Mapping** grid, double click the desired formula.
2. If there is no mapping defined yet, then on the newly displayed **Formula parameter Mapping** page, click the down arrow next to the **Master Entity** field and select the entity on which the mapping should be applied at the Loan Management level. Continue with mapping the Input and Output parameters. Read more about [formula mappings](#) [here](#).

3. Click the **Save and Close** button.

## 10. Configure Subledger Settings

### NOTE

The **GL Settings** tab is available only when Loan Management is implemented along with **Subledger**.

In the **GL Accounts** tab, you can set specific accounts to be used by the Subledger system for transactions performed on contracts based on banking products with this service configuration. Thus, you can overwrite the generic settings of the Subledger, instructing it to use the accounts specified here.

Accounting System	Accounting Scope	Item	GL Account
0001	LoanAccount	Loan Interest	20110 Commercial loans

1. To add specific accounts to be used by **Subledger**, click **Insert** and fill in the following fields in the displayed **Add Banking Product GL Account** page:

**ADD BANKING PRODUCT GL ACCOUNT**

**Main Information**

Accounting System: 0001 ↓

Accounting Scope: LoanAccount ↓

Item: Loan Interest ↓

GL Account: 20110 Commercial loans ↓

- **Accounting System:** Select from the list the desired accounting system. The list contains the records created in the Accounting System entity.
  - **Accounting Scope:** Select from the list the corresponding accounting scope. The list contains the records created in the Accounting Scope entity.
  - **Item:** Select from the list the corresponding transaction item. The list contains the records created in the Transaction Item Accounting Config entity.
  - **GL Account:** Select from the list the corresponding GL account. The list is filtered based on the previously selected accounting system. It contains the accounts defined in the Accounting Chart entity that were added to the chosen accounting system record.
2. Click the **Save and Reload** button.

### IMPORTANT!

After defining the relevant details of the product service configuration, proceed to [approval](#).

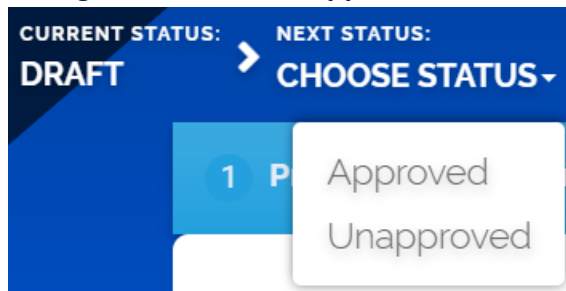


## Approving a Product Service Configuration

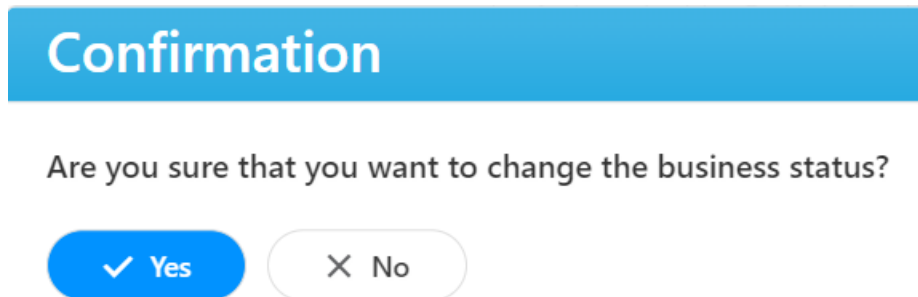
You can perform the approval from the Loan Management user interface.

After defining the relevant details of the product service configuration, proceed to its approval:

1. Select a product service configuration in **Draft** status.
2. Change its status into **Approved**.



3. Click **Yes** to confirm your action.



If Loan Management performs all the validations successfully, then the current status of the product service configuration changes to **Approved**. Now you can use its attached banking product to create contracts, either via the user interface or via API integration.

### NOTE

To edit an approved record, use the



button at the top right side of the **Product Admin Configuration** page to create a new version of the record that you can alter.

# Viewing a Product Service Configuration's History

You can view the versions of a product service configuration, along with workflow status and the user who modified the record, in the **Product Admin Configuration** page's **History** tab.

1 Product Admin Configuration2 GL Settings3 History

HISTORY

RefreshExport

<input type="checkbox"/>	Label	Name	attributeVersionDate	attributeVersion	Modified by user	Modified On
<input type="checkbox"/>	Q	Q	Q	Q	Q	Q
	Approved	CONFIG88.2	30/08/2023 14:49	2		30/08/2023 14:49
	Version Closed	CONFIG88	18/03/2022 14:22	1		30/08/2023 14:49

A product service configuration can have only one **Draft** version, one **Current** version, but it may have multiple **History** versions, which are displayed in this section. Here you can track the record's life cycle and view older versions that are no longer active. Double-click a version in the list to view its details.

CURRENT STATUS: APPROVED

NEXT STATUS: VERSION CLOSED

NAME CONFIG88.2

1 Product Admin Configuration

2 GL Settings

3 History

Banking Product Details

Banking Product Type

BNPL

Currency

EUR

Banking Products

+ Insert

Export menu

Refresh

Name	Banking Produ...	Category	Class	St
Q	Q	Q	Q	Q
No data				

Self Bank Account Associated With The Product

Reconciliation Account

ForEmag

Negative balance treatment

NoMessage

Payment Allocation Settings

Repayment Allocation Method

BPAAdmin...

Grace Days for Repayment

Penalty for grace period

# Customers, Groups and Limits

Financial institutions deal with customers, either individuals or legal entities. Customers may be part of groups. Loan Management enables you to manage customers and groups with the aid of dedicated menus.

To perform credit related activities, financial institutions can monitor their exposure by setting up limits for their customers. You can manage limits through a series of menus and reports available in Loan Management.

**NOTE**  
You must record customers, groups (if applicable), and limits (depending on your system's configuration) to Loan Management before creating loan contracts for those customers.

This page contains a series of topics that explain how Loan Management is configured to work with customers, groups, and limits:

<b>Customers</b>	<b>213</b>
Creating Customers	214
<b>Groups</b>	<b>223</b>
<b>Limits</b>	<b>225</b>
Managing Limits	235
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Managing Limit Types	240
Creating Limits	242
Creating New Versions of Existing Limits	246

# Customers

A customer is an individual or a legal entity who has an account with a bank. Opening an account is the crucial element in establishing the bank-customer relationship. You must create a record for each of your financial institution's customers in Loan Management. The customer records are stored in the Account entity.

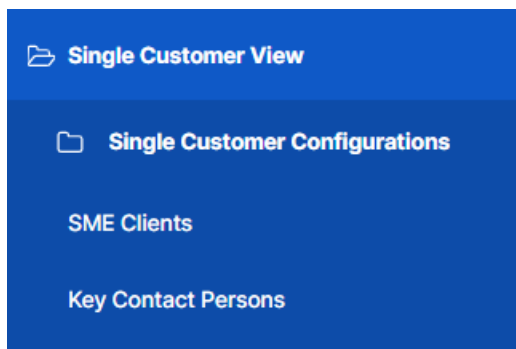
## IMPORTANT!

Perform complex customer management operations using the [Customer 360](#) solutions, as described [here](#).

You can also manage customers and their relevant information from Loan Management.

## Creating Customers Using the Customer 360 Menus

You can [manage customers via the Single Customer View](#) dedicated menus: **SME Clients**, **Banking Retail Clients** and **Key Contact Person**.



Create new customer records for customers following the steps described in the [Adding Companies](#) page.

After creating a record for a customer, proceed to filling in their details as described in the [Managing Detailed Company Information](#) page.

**NOTE**

A customer has to be in the Prospect or Customer status to be selected when creating contracts.

Alternatively, follow these steps to manage customers in Loan Management:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Customer Core** menu item to open the **Customer Core** page.

CUSTOMER CORE					
<input type="checkbox"/> Customer No	Name	Main Email	Account type	Fiscal registration number	Unique ID (PIN/Fiscal Regist...
Q	Q	Q	Q	Q	Q
1314	...	...@hotmail.com	Legal person	775	
2251	...	...@hotmail.com	Individual person		505
1793	...	...@hotmail.com	Individual person		632
1863	...	...@yahoo.com	Individual person		721
783	...	...@hotmail.com	Individual person		506
5	10	20			1 2 3 4 5 ...

On the **Customer Core** page, you can add new customer records or search, edit, and delete existing ones.

## Creating Customers

Follow these steps to create new customer records:

1. Click **Insert** on the **Customer Core** page to open the **Overview** page, the first in the customer creation process.

2. Fill in the following fields:

- **Name** - Enter the name of the customer.
- **Account Type** - Select the customer type from the possible options: Legal person, Individual person or Self-employed individual.

3. Optionally, fill in the following fields:

- **First Name** - Enter the first name of the customer, if this is not a legal person.
- **Last Name** - Enter the last name of the customer, if this is not a legal person.
- **Unique ID (PIN/Fiscal Registration No)** - Enter the customer's unique ID:
  - For an Individual customer enter their personal identification number (PIN).
  - For a Legal person or a Self employed individual customer enter their fiscal registration number.
- **Direct Debit Settlement Account** - Select this checkbox if the direct debit settlement for repayment notifications should be turned on for this customer, regardless of the settings at the contracts level. You can choose whether this setting should impact all the customer's existing contracts or not with the aid of a [Loan Management system parameter](#).
- **Country** - Select the country of the customer. This can affect Country Exposure limits for customers part of groups.
- **Main Email** - Enter the email address of the customer.
- **Main Phone** - Enter the phone number of the customer.

- **Role** - Select as many roles as you wish for this customer to be able to have within contracts. The values are displayed from the Contract Role option set.

**NOTE** Roles can affect the limits that can be set up for a customer. If a customer has a role, then they can have role-based limits that are configured with a limit type associated to the same role. For example, if the customer is declared as Merchant, they can have a limit based on a limit type with the associated Merchant role.

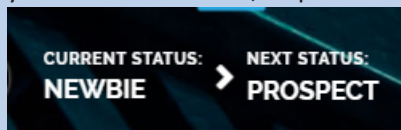
4. Click the **Save and Reload** button.

The customer is saved in **Newbie** status, with minimum information, such as an auto-generated customer number, but you can now add more information about the customer in the following sections: **Company Representatives**, **Products**, **Bank Accounts** and **Collateral Register**. The **Groups & Limits** tab helps you with the configuration of group membership and limits for this customer.

5. Scroll through each of the newly displayed sections and fill in the necessary information, as described within the sections.
6. Select the **Groups & Limits** tab and fill in the necessary information, as described [here](#).

**NOTE**

Change the customer's status Prospect or Customer to select that customer when you create contracts, as pictured here:



## Manage Company Representatives

This section lists the customer's legal representatives, such as administrators, affiliates, owners, or other key contact persons.



## COMPANY REPRESENTATIVES

<input type="checkbox"/>	Name	PIN	Contact Type	Relation Type	Main Phone	Main Email	Account responsible
	Q	Q	Q	Q	Q	Q	Q
	Geo Geo		Legal Representative	Administrator			

In this section, you can add new representatives, view the existing ones by clicking the desired record from the list, delete records from the list and export the list.

To add a new representative to the customer, follow these steps:

1. Click the **Insert** button within the **Company Representatives** section to open the **Add Contact** page.
2. Fill in the following fields:

- **Contact** - Select an existing customer from the database as your new customer's representative.
  - **Contact Type** - Select the contact type from the drop-down list.
  - **Account Relation Type** - Select the representative's type of relation with the customer from the drop-down list of possible values.
3. Click the **Save and Close** button.

## View Products

View the contracts opened for the customer in the **Products** section. The list displays information about the number of the contract, the banking product, and the activation date.

## PRODUCTS

[Export](#) [Refresh](#)

<input type="checkbox"/>	Contract No	Banking Product	Activation Date
	Q	Q	Q
	6619	Term Loan Euro	12/05/2022
	6619.2	Term Loan Euro	12/05/2022
	6643	Bank Account EUR	18/05/2022
	6644	Term Loan Euro	18/05/2022
	6646	Bank Account EUR	18/05/2022

5 10 20 1 ... 5 6 7 8 ...

Click the desired record from the list to open the **Contract** page with the selected contract's information.

## View Bank Accounts

View the customer's bank accounts in the **Bank Accounts** section, with details such as name of the bank, Swift/BIC, account number and type, customer, and business status.

## BANK ACCOUNTS

[+ Insert](#) [Export](#) [Refresh](#)

<input type="checkbox"/>	Bank	Swift/BIC	Bank Account Number	Account Type	Customer	Business Status
	Q	Q	Q	Q	Q	Q
	FintechOS Bank	FINTECHR	FIN000003469	Current Account	BOBO SanLegal	Opened
	FintechOS Bank	FINTECHR	FIN000003470	Loan Term Account	BOBO SanLegal	Opened
	FintechOS Bank	FINTECHR	FIN000003484	Loan Term Account	BOBO SanLegal	Opened
	FintechOS Bank	FINTECHR	FIN000003579	Loan Term Account	BOBO SanLegal	Opened
	FintechOS Bank	FINTECHR	FIN000003585	Loan Term Account	BOBO SanLegal	Opened

5 10 20 1 2 3 4 5 ...

Click the desired record from the list to open the **Bank Account** page with the selected bank account's information.

## Manage Collateral Register

Manage the customer's registered collaterals in the **Collaterals** section, displaying details such as name, business status, owner, available value, currency, last and next evaluation dates.

**COLLATERALS**

<input type="checkbox"/>	Name	Business Status	Owner	Available Value	Currency	Last Evaluation Date	Next Evaluation Date
<input type="checkbox"/>	CR000000161	Draft	BOBO SanLegal	15,000.00	EUR		

In this section, you can add new collateral register records, view the existing ones by clicking the desired record from the list, delete records from the list and export the list.

To add a new collateral register record to the customer, follow these steps:

1. Click the **Insert** button within the **Collateral Register** section to display the **Add Collateral Register** page, with the Customer field automatically completed with the current customer's name.

**ADD COLLATERAL REGISTER**

Name	Customer
Collateral Type	BOBO SanGroup
Available Value	Currency
Deposit Bank Account	Bank Account
Start Date	Expiry Date
Renewal Date	Right On Good

2. Follow the steps described in the Registering Collaterals page of this guide.

## Manage Groups & Limits

Access the **Group & Limits** tab to manage the limits set for the customer. If the customer is a group, then all the limits applicable for the group members are listed here, as well as details about the group members. To learn more about how limits and groups work, see the [Limits](#) page.

1 Overview

2 Group & Limits

GROUP INFO

Is Group

✓

Group Name

BOBO SanGroup

Group Rating

Account Limit Currency

EUR

Limits

+ Insert

X Delete

Export

Refresh

<input type="checkbox"/>	Limit Type	Currency	Limit Amount	Available Limit Amount	Business Status	Expire Date	Review Date	Details
<input type="checkbox"/>	Total Exposure	EUR	2,250,000.00	2,250,000.00	Approved	27/04/2032	27/04/2025	

Group Members

+ Insert

Export

Refresh

<input type="checkbox"/>	Group	Master	Customer	Ownership	Status	Customer Segment	Account responsible	Remove from Group
<input type="checkbox"/>	BOBO SanGroup	BOBO SanGroup	dadsa ddsasd	0 %	Draft		geo.c	<input type="checkbox"/>
<input type="checkbox"/>	BOBO SanGroup	BOBO SanGroup	BOBO SanLegal	0 %	Draft			<input type="checkbox"/>

NOTE

You can add both legal entity and individual customers to groups. This can be helpful if you need to monitor group exposure for a household or a company and its shareholders together.

When the [LimitMandatoryForIndividuals](#) system parameter is set to True, Loan Management performs limit validations for a group containing individual customers the same way as for groups composed solely of legal persons.

Go through the sections available within this tab to perform the following tasks:

Configure Group Info

You can specify whether a customer represents a group of companies in the **Group Info** section.

1. Fill in the following information within this section:

- **Is Group** - Select the checkbox if the customer represents a group.
  - **Group Name** - This field is displayed only if the customer represents a group and it is automatically completed with the current customer's name.
  - **Account Limit Currency** - Select the currency of the customer limit.
2. If the customer is a group, fill in the **Group Rating** by entering the rating of the group.
  3. Click the **Save and Reload** button.

## Set Limits

Set the customer's limits in the **Limits** section. If the customer is a group, then all the limits applicable for the group, coming from group members, are listed here.

Limits

<input type="checkbox"/>	Limit Type	Currency	Limit Amount	Available Limit A...	Business Status	Expire Date	Review Date	Details
<input type="checkbox"/>	Total Exposure	EUR	2,250,000.00	2,250,000.00	Approved	27/04/2032	27/04/2025	

To add a new limit record to the customer, follow these steps:

1. Click the **Insert** button within the **Limits** section to display the **Customer Limit** page, with the customer, the group and the currency automatically completed with the current customer's values.

Customer Limit

Customer BOBO SanGroup	Currency EUR	Is Group ✓	Group BOBO SanGroup
Limit Type	Limit Date 14/06/2022	Is Revolving ✓	On Repayment ✓
Limit Amount	Available Limit Amount	Is Mandatory ✓	
Expire Period Type Select...	Expire Period	Expire Date	Review Date

2. Follow the steps described in the [Creating Limits](#) page of this guide.

## Manage Members/Group Members Section

Manage the members/ group members' details in the **Members** or **Group Members** section. Here you can add new member records, view the existing ones by clicking the desired record from the list, and export the list.

### Group Members

[+ Insert](#) [Export](#) [Refresh](#)

<input type="checkbox"/>	Group	Master	Customer	Ownership	Status	Customer Segment	Account responsi...	Remove from Gro...
Q	Q	Q	Q	Q	Q	Q	Q	Q
	BOBO SanGroup	BOBO SanGroup	Mimi's Company	15 %	Draft			✕
	BOBO SanGroup	BOBO SanGroup	BOBO SanLegal	0 %	Draft			✕

To add a new member or group member to the customer, follow these steps:

1. Click the **Insert** button within the **Members/Group Members** section to display the **Add Member/ Add Group Member** page, with the master and the group automatically completed with the current customer's values.

ADD GROUP MEMBER

Group BOBO SanGroup	Master BOBO SanGroup
Customer	Ownership

2. Follow the instructions from the [Groups](#) page of this guide, selecting a customer to add as a member, and entering an ownership percentage.

## Groups

Loan Management allows you to define not only customers, but groups of customers as well. A corporate group or group of companies is a collection of parent and subsidiary corporations that function as a single economic entity through a common source of control. You can add both legal entity and individual customers to groups, or you can create groups of individual customers. This can be helpful if you need to monitor group exposure for a household or a company and its shareholders together.

### IMPORTANT!

Complex group management operations are performed by the [Customer 360](#) apps. For detailed information, see the [Groups Info](#) section within the Customer 360 Legal Entities user guide.

You can also manage customers groups' relevant information from Loan Management.

To define a group, select the checkbox **Is Group** from the **Group&Limits** tab of the **Customer** page, accessible through the **Loan Management Operational > Customer Core** menu. After you select the checkbox, the group name is automatically populated with the customer's name and you can insert a rating and a limit currency for that group.

The screenshot shows a form titled "GROUP INFO" with the following fields:

- Is Group:** A checkbox that is checked.
- Group Name:** A text input field containing the value "AAAA".
- Group Rating:** A text input field containing the value "2323".
- Account Limit Currency:** A dropdown menu showing "EUR".

Add new members to the group by clicking the **Insert** button from the **Group Members** section. If a member has other members associated with it, they are all displayed in the same section. For a more clear picture of the group, you can insert an ownership percent, determined by dividing the number of shares they own by the number of outstanding shares.

ADD GROUP MEMBER

Group

BOBO SanGroup

Master

BOBO SanGroup

Customer

Jane Renner

Ownership

10

You can add subsidiary companies (sometimes referred to as child companies) to a company by clicking the **Insert** button from the **Group Members** tab. Therefore, a customer's child company is displayed in the **Group Members** tab.

1 Overview

2 Group & Limits

GROUP INFO

Is Group

☒

Group Name

BOBO SanGroup

Group Rating

Account Limit Currency

EUR

Limits

+ Insert

✕ Delete

📄 Export

🔄 Refresh

<input type="checkbox"/>	Limit Type	Currency	Limit Amount	Available Limit Amount	Business Status	Expire Date	Review Date	Details
	🔍	🔍	🔍	🔍	🔍	🔍	📅 🔍	📅 🔍
<input type="checkbox"/>	Total Exposure	EUR	2,250,000.00	2,250,000.00	Approved	27/04/2032	27/04/2025	

Group Members

+ Insert

📄 Export

🔄 Refresh

<input type="checkbox"/>	Group	Master	Customer	Ownership	Status	Customer Segment	Account responsible	Remove from Group
	🔍	🔍	🔍	🔍	🔍	🔍	🔍	🔍
<input type="checkbox"/>	BOBO SanGroup	BOBO SanGroup	dadsa dsdads	0 %	Draft		geo.c	✖
<input type="checkbox"/>	BOBO SanGroup	BOBO SanGroup	BOBO SanLegal	0 %	Draft			✖

If a customer is a child company for more than one company part of different groups, it impacts the available limit amount of the group to which it was first added.



**NOTE**

When a member is added to or deleted from a group, Loan Management automatically recalculates the limits of the group. The limits of the deleted member become as they were before entering the group.

If a member is moved from one group to another via API integration, the limits of both affected groups are automatically recalculated in real time.

## Limits

The exposure is the risk a financial institution is taking on for writing the loan. Every time a financial institution grants any type of credit facility to a customer (a loan), the financial institution monitors its exposure to various financial indicators, which can negatively affect the customer and the institution itself. The financial institution uses various algorithms to calculate their exposure to the risks, but this calculation simply adds up to their exposure.

When referring to a loan, this page refers to all types of loans: unsecured loan, secured loan, overdraft, promissory note, working capital loan, and so on.

In FintechOSLoan Management an exposure can be related to a [group](#) or to a [customer](#).

The approval of limits is subject to validation, depending on the type of customer. These validations are [detailed below](#).

### Group Exposure Types

- **Total Exposure** - the total amount of principal the lender is willing to allow the group to use in lending products at a certain moment in time.
- **Country Exposure** - the limit placed by a financial institution on the number of loans that can be given to borrowers in a particular country. They are used to control the financial institution's risk exposure to particular regions.

- **Company Exposure** - the exposure of a particular company in the group the lender is willing to allow for granting loans.
- **Product Type Exposure** - the maximum amount of credit an institution extends to the group for a specific type of product.
- **Product Exposure** - the maximum amount of credit an institution extends to the group for a specific product.
- **Exchange Exposure** - the risk a company undertakes when making financial transactions in foreign currencies. All currencies can experience periods of high volatility which can adversely affect profit margins, if suitable strategies are not in place to protect cash flow from sudden currency fluctuations.

## Customer Exposure Types

- **Total Exposure** - the total amount of principal the lender is willing to allow the borrower to use in lending products at a certain moment in time.
- **Product Type Exposure** - the maximum amount of credit a financial institution extends to the customer for a specific type of product.
- **Product Exposure** - the maximum amount of credit a financial institution extends to the customer for a specific product.
- **Exchange Exposure** - the risk a company undertakes when making financial transactions in foreign currencies. All currencies can experience periods of high volatility which can adversely affect profit margins, if suitable strategies are not in place to protect cash flow from sudden currency fluctuations.

### NOTE

You can define new limit types that are based on roles associated to contract participants specific to your business, and use them throughout Loan Management with all the functionality of any other default limit type. Read the [dedicated page](#) to learn how to manage limit type records.

## Validations

### IMPORTANT!

The `LimitMandatoryForIndividual` Loan Management system parameter allows banks to specify whether their system should validate limits for individual customer, the same way it validates limits for legal entity customers. The limits for legal entities and groups are validated by Loan Management by default.

## For Customers Not Belonging to Groups

- **Total Exposure** is validated to be unique.
- **Product Type Exposure** is validated against the approved and active total exposure set on the customer.
- **Product Exposure** is validated against the Product Type Exposure if exists. If a Product Type Exposure does not exist, it is validated against the Total Exposure.
- **Exchange Exposure** is validated against Total Exposure.

## For Customers Belonging to Groups

- **Total Exposure** is validated to be unique and it is validated against the Total Exposure set on the group.
- When a group defines a Company Exposure, a Total Exposure is automatically created for that company.
- All the other limits are validated against their correspondent set on the customer's group, if exists. If the correspondent does not exist, there are validated against Total Exposure from the group.
- The account limit currency is automatically filled in with the group limit currency.

### NOTE

Both legal entity and individual customers can be added to groups. This can be helpful if you need to monitor group exposure for a household or a

company and its shareholders together.

When `LimitMandatoryForIndividual = True`, limit validations for a group containing individual customers happen the same way as for groups composed solely of legal persons.

## For Groups

- **Total Exposure** is validated to be unique.
- **Product Type Exposure** is validated against the approved and active Total Exposure set on the group.
- **Product Exposure** is validated against the Product Type Exposure if it exists. If a Product Type exposure does not exist, it is validated against the Total Exposure.
- **Company Exposure** is validated against the approved and active total exposure set on the group.
- **Country Exposure** is validated against the approved and active total exposure set on that group.
- **Exchange Exposure** is validated against Total Exposure.
- You can define as many limits with the same Type (on Group or on Customer) as long as only one Limit (Type) is in **Approved** status. After setting the limits, the loan approval is validated against those limits, as detailed below:
  - If there is not at least one limit set at the customer or group level, the approval of the loan is not possible and an explicit error is displayed.
  - Contract maturity date cannot exceed the limit's expiry date and an explicit error is displayed.
  - The loan amount cannot exceed the corresponding limit amount. If not, an explicit error is displayed.

### NOTE

When a member is added to or deleted from a group, Loan Management

automatically recalculates the limits of the group. The limits of the deleted member become as they were before entering the group.  
If a member is moved from one group to another via API integration, the limits of both affected groups are automatically recalculated in real time.

## For Role-Based Limits

Role-based limits have all the functionality of any other system limit type. The limits defined for participants at the contract level can be updated according to the contract's value. If a limit is set as revolving, it is replenished with capital repayments.

For contracts based on products with a product service configuration with a mandatory role configured, Loan Management checks whether the contract contains a participant with the same role. For example, for a product service configuration with Merchant mandatory role, if Loan Management doesn't find a participant with this Merchant role on the contract, then an error message informs you that "*Contract participants are blocking disbursement (Merchant)!*". In this case, add a participant with the Merchant role to the contract.

If the Search Limit checkbox was selected for the mandatory role at the product service configuration level, then Loan Management checks whether there is a contract participant whose limit is of the limit type associated with the same role. In the example above, Loan Management checks the existence of a participant who has a Merchant Exposure type limit.

If the existing limit's available amount is smaller than the value of the contract, then Loan Management checks the limit's Is Mandatory field. If Is Mandatory = True, then an error is raised that the limit is reached and the contract cannot be approved, otherwise, a warning is presented but the contract can be approved.

### NOTE

The Is Mandatory field's value cannot be changed from False to True when versioning a limit until Available Limit Amount  $\geq 0$ .

### IMPORTANT!

The way the system is configured by default, there are no validations at **Contract Version** approval for contract participants' limits. If this is desired, the [version settings](#) for Contract Participants need to be changed from `IsUpdate= true` to `IsUpdate = false`.

EDIT VERSION SETTINGS ITEM

VERSION SETTINGS ITEM

Related Versioned Entity	FTOS_CB_ContractParticipant	↓	✎
Versioning Attribute	contractid	↓	✎
Parent Versioned Entity		↓	✎
name	FTOS_CB_ContractParticipant_		
Version Settings	FTOS_CB_Contract_States	↓	✎
Is Update	<input checked="" type="checkbox"/>		

## Calculation of Available Limit Amount

After loan approval, the available amount for each corresponding limit is recalculated by subtracting the loan amount from the limit amount. When calculating the group limit available amount, the application takes into account all group members. If the limit currency and loan currency are different, the application automatically converts the loan amount using the current exchange rate.

All group and customer limits are updated daily in accordance with the exchange rate. This is done via a job called **Daily Limit Recalculation**.

If a limit is revolving (`Is Revolving = True` at the limit level), then the limit is a revolving limit, meaning that the Available Amount of the limit is replenished either on each repayment of the principal or on loan contract closure, depending on the `On Repayment` field's value. If `Is Revolving = False`, then the limit is not revolving in any circumstances.

At a revolving limit's level, if `On Repayment = True`, then the Available Amount of the limit is replenished on each repayment of the principal with the repayment value. If `On Repayment = False`, then the limit amount is replenished on loan contract closure with the amount of the contract.

If a customer that already has approved contracts becomes a member of a group, all its active limits are suspended. The same applies when excluding a customer from a group.

If a customer is a child company for more than one company which are part of different groups, it should have impact on the available limit amount on the group to which it was first added, unless if it was already part of a group.

## Limits Lifecycle

### Limit Statuses

The four-eyes principle is applicable for limits in FintechOS Loan Management, meaning that a record should be approved by a second bank employee, with higher authorization rights. This is enabled via approval task FintechOS Platform capabilities and thus it is also a bank's responsibility to set proper [security roles](#) and access rights to its users, in order to make sure that the same user can't insert and also authorize the same record.

A limit record has the following business workflow statuses:

- **Draft** - the status of a newly created limit record that was not yet sent for approval. While in this status, you can edit some fields, but you can't use it in contracts. Send the record to approval after editing all the necessary details.
- **Pending** - this is a system status applied to limits or [limit versions](#) sent for approval, but not yet approved. No updates of the records are available in this system status.
- **LimitApproved** - the status of a limit record after being authorized for use throughout Loan Management by a user with customer limits approval competencies. While in this status, you cannot edit the record's details. If you need to alter the limit's details, create a new version based on the current limit.
- **Closed** - the last status of a limit, after manually closing it or after creating a new version based on the current version. No updates are allowed on the record. The limit record cannot be used anymore.

- **Suspended** - the status of limit records which are suspended at the moment and cannot be used. If a customer is introduced into a group, the customer's limits are all suspended automatically until the limit records are reviewed and new versions are created for them with updated information.
- **Expired** - the status of limits whose availability has expired, thus the record cannot be used anymore. You can edit a limit's expiration date to a future date by creating a new version.

**IMPORTANT!**

For the limit to be applied, it must be in **Approved** status.

## Limit Versioning

Loan Management allows you to [create new versions](#) for an existing limit if you need to modify an existing approved limit.

A limit version can have the following statuses:

- **Version Draft** - the status of a newly created limit version record that was not yet sent for approval. While in this status, you can edit some fields. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a limit version record after being authorized by a user with customer limits approval competencies. While in this status, you cannot edit the record's details.
- **Version Closed** - the last status of a limit version, after manually closing it or after creating another new version based on the current version. No updates are allowed on the record.

**IMPORTANT!**

The way the system is configured by default, there are no validations at **Contract Version** approval for contract participants' limits. If this is desired, the [version settings](#) for Contract Participants needs to be



changed from IsUpdate= true to IsUpdate = false.

EDIT VERSION SETTINGS ITEM

VERSION SETTINGS ITEM

Related Versioned Entity

FTOS\_CB\_ContractParticipant

▼

✎

Versioning Attribute

contractid

▼

✎

Parent Versioned Entity

▼

✎

name

FTOS\_CB\_ContractParticipant\_

Version Settings

FTOS\_CB\_Contract\_States

▼

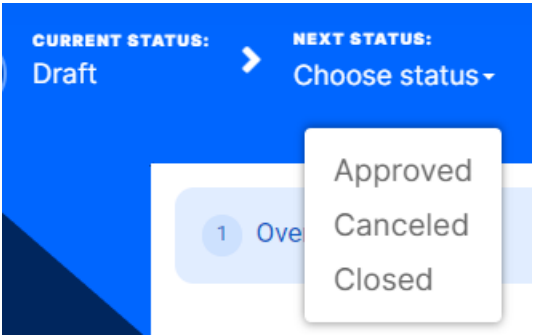
✎

Is Update

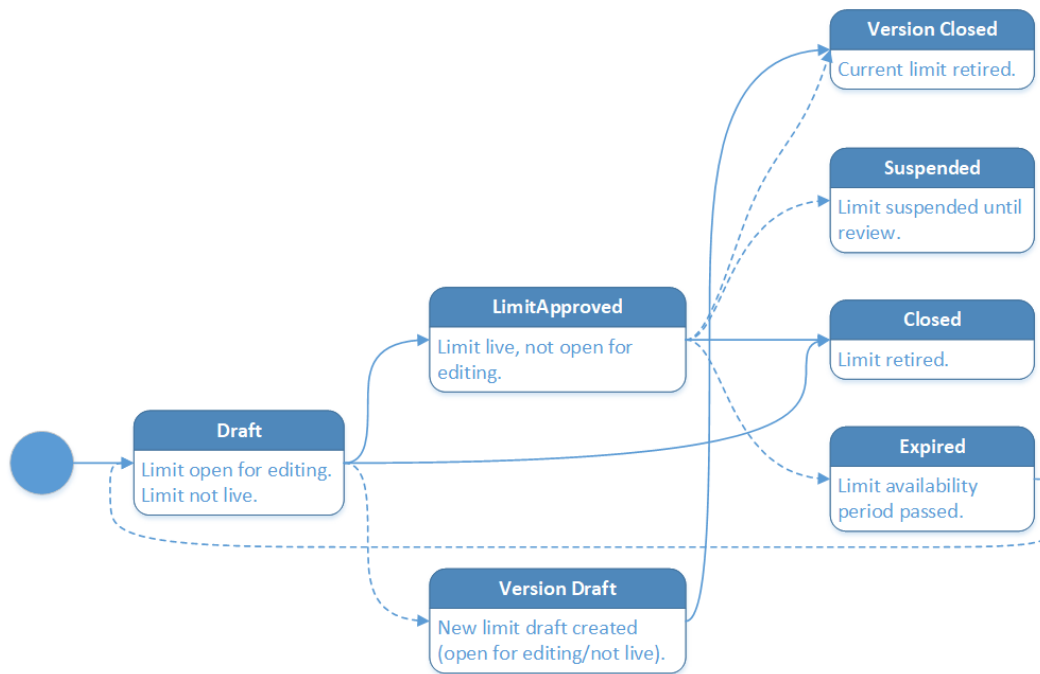
☒

### Changing Limit Statuses

You can manage a limit's life cycle by changing its status from the top right corner of the screen.



The limit status transitions are illustrated below:



Note that:

- Once a record is live, its settings can no longer be modified.
- If you want to update the details of a live limit, you must create a new limit version.
- When you create a new limit version, the current version is retired and moved to history; no updates are allowed on the retired version.
- Every limit version starts in a draft state and must go through an approval process before going live.
- Only one version of a limit can be live at one time.

#### NOTE

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Managing Limits

### NOTE

You must have the **Corporate Credit Officer**, **Retail Credit Officer**, or **Risk Officer** [security roles](#) to add and update limits. Other associated roles allow you only to read limits information.

To manage limit records:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Customer Limit** menu item to open the **Customer Limits List** page.

#### CUSTOMER LIMIT

<input type="checkbox"/> Customer	Limit Type	Business Status	Limit Amount	Available Limit...	Currency	Expire Date	IsSecured	Product	Banking Produ...	Review Date
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Didia Vall	Total Exposure	Approved	12,000.00	3,200.00	EUR	24/06/2032	<input type="checkbox"/>			23/04/2022
Mark Mat	Total Exposure	Approved	12,000.00	3,200.00	EUR	08/06/2032	<input type="checkbox"/>			07/04/2022
Kate Volt	Total Exposure	Approved	12,000.00	3,200.00	EUR	08/06/2032	<input type="checkbox"/>			07/04/2022
Selena Altag	Total Exposure	Approved	12,000.00	3,200.00	EUR	07/06/2032	<input type="checkbox"/>			06/04/2022
Laura Postm...	Total Exposure	Approved	12,000.00	3,200.00	EUR	15/05/2032	<input type="checkbox"/>			15/02/2022

On the **Customer Limits List** page, you can [create a new limit record for a customer](#), delete records in Draft status, and search for a specific record. You can also edit the information for limits in **Draft** or **Version Draft** status, or [create new versions for approved limits](#) to change their information.

Alternatively, you can also manage limits at a customer level from the **Customer Core** menu, by selecting a customer from the list and managing their limit records within the **Groups & Limits** tab.

## Role-Based Limits

Role-based limit capabilities allow you to manage limits for different customer types, such as merchants. Using role-based limits, the limit for a customer who is a merchant within several contracts can be configured properly, allowing the customer to take loans until they reach their set limit.

To use role-based limits within your contracts, follow these steps:

1. Define new [limit types](#) that are based on roles associated with contract participants specific to your business.

You can use these new limit types throughout Loan Management with all the functionality of any other default limit type. For example, you can configure a Merchant Exposure limit type, to enable the creation of limits for customers who have the Merchant role associated at a customer level.

ADD CUSTOMER LIMIT TYPE

**Customer Limit Type**

Name

Merchant Exposure

Importance

6

Role

Merchant

Is Group

☐

Is System

☒

2. Associate the same [role](#) to the customer.

You can associate as many roles as you need for a customer to be able to have within contracts, using the Role field added to the **Customer** page accessible through the **Customer Core** menu.

Limits defined for roles at a customer level are treated as system limits and they are affected by contracts where that specific customer plays that role. For example, if the customer has a Merchant role, you can define them a Merchant Exposure type limit.

- Decide whether a customer limit is a [mandatory limit](#) or not.

The **Is Mandatory** field's value within the **Customer Limit** page configures the limit validation at the contract level. When the existing limit's available amount is smaller than the value of the contract, Loan Management checks the limit's **Is Mandatory** field. If **Is Mandatory** = **True**, then an error is raised that the limit is reached and the contract cannot be approved, otherwise, if **Is Mandatory** = **False**, a warning is presented but the contract can be approved. The default value is **True**.

- Configure [mandatory roles](#) at the banking product's service configuration level.

The **Mandatory Roles for Contract Approval** section at the [product service configuration](#) level allows you to add the roles of the participants that are mandatory to exist at the contract level for contracts based on this banking product. In other words, when creating contracts based on products with service configurations with the Merchant role in this section, you must add a customer with the same Merchant role as a contract participant, otherwise, the contract cannot be approved.

When **Search Limit** is selected for a role on a product's service configuration, Loan

Management checks if the contract participant with this role has an attached limit configured with a limit type associated with the same role.

### Mandatory Roles for Contract Approval

<input type="checkbox"/> Role	Search Limit
<input type="text" value="🔍"/>	<input type="text" value="(All)"/>
Merchant	<input checked="" type="checkbox"/>
Beneficiary	<input type="checkbox"/>

#### NOTE

Verify the access rights for users with [Corporate Credit Officer](#), [Retail Credit Officer](#), and [Risk Officer](#) security roles. The out-of-the-box settings for these security roles allow users to add and update limits, while users with other associated roles can only read limit information. Update the access rights according to your financial institution's needs.

## Role-Based Limits Validations

Role-based limits have all the functionality of any other system limit type. The limits defined for participants at the contract level can be updated according to the contract's value. If a limit is set as revolving, it is replenished with capital repayments.

For contracts based on products with a product service configuration with a mandatory role configured, Loan Management checks whether the contract contains a participant with the same role. For example, for a product service configuration with Merchant mandatory role, if Loan Management doesn't find a participant with this Merchant role on the contract, then an error message informs you that *"Contract participants are blocking disbursement (Merchant)!"*. In this case, add a participant with the Merchant role to the contract.

If the **Search Limit** checkbox was selected for the mandatory role at the product service configuration level, then Loan Management checks whether there is a contract participant whose limit is of the limit type associated with the same role. In the example above, Loan Management checks the existence of a participant who has a **Merchant Exposure** type limit.

If the existing limit's available amount is smaller than the value of the contract, then Loan Management checks the limit's **Is Mandatory** field. If **Is Mandatory = True**, then an error is raised that the limit is reached and the contract cannot be approved, otherwise, a warning is presented but the contract can be approved.

### NOTE

The **Is Mandatory** field's value cannot be changed from **False** to **True** when versioning a limit until **Available Limit Amount**  $\geq 0$ .

### IMPORTANT!

The way the system is configured by default, there are no validations at **Contract Version** approval for contract participants' limits. If this is desired, the [version settings](#) for **Contract Participants** need to be changed from **IsUpdate = true** to **IsUpdate = false**.

EDIT VERSION SETTINGS ITEM

VERSION SETTINGS ITEM

Related Versioned Entity	FTOS_CB_ContractParticipant	↓ ✎
Versioning Attribute	contractId	↓ ✎
Parent Versioned Entity		↓ ✎
name	FTOS_CB_ContractParticipant_	
Version Settings	FTOS_CB_Contract_States	↓ ✎
Is Update	<input checked="" type="checkbox"/>	

## Managing Limit Types

You can define new limit types that are based on roles associated to contract participants specific to your business, and use them throughout Loan Management with all the functionality of any other default limit type. To manage limit type records:

1. In FintechOS Portal, click the main menu icon and expand the **Admin Configurations** menu.
2. Click **Customer Limit Type** menu item to open the **Customer Limit Types List** page.

### CUSTOMER LIMIT TYPES LIST

<input type="checkbox"/> Name	Importance
Q	Q
Total Exposure	0
Country Exposure	1
Company Exposure	2
Product Type Exposure	3
Product Exposure	4
Exchange Exposure	5
Merchant Exposure	6

On the **Customer Limit Types List** page, you can add new limit type records or search, edit, and delete existing ones.

### IMPORTANT!

You can only edit or delete limit types that are not marked as **Is System**. Limit types that come with the Loan Management packages are considered system limit types and they are applicable to the customer of a contract.

## Creating Limit Types

To create a new limit record for a customer, follow these steps:

1. Click **Insert** on the **Customer Limit Types List** page to open the **Add Customer Limit Type** page.



## 2. Fill in the following fields:

ADD CUSTOMER LIMIT TYPE

**Customer Limit Type**

**Name**

**Role**

**Importance**

**Is Group**

☐

**Is System**

☒

- **Name** - Enter the name of the limit type.
- **Role** - Select the role of the contract participant for which this limit type can be used.
- **Importance** - Enter the order in which this limit is considered by the system. The lower the number, the higher the limit type's importance during the limit calculations.
- **Is Group** - Select this checkbox if the limit type is applicable to groups.
- **Is System** - This read-only field marks a record as system limit type, and only the limit types that come within the Loan Management packages are marked as system limit types and they are applicable to the customer of a contract. You can only edit or delete limit types that are not marked as Is System.

3. Click the **Save and Reload** button.

You can view the existing customer limits affected by this limit type in the **Customer Limits** section. Only customers with the same role selected on their customer record have their customer limit displayed here.

## Customer Limits

+ Insert
✕ Delete
📄 Export
🔄 Refresh

<input type="checkbox"/>	Limit Type	Currency	Limit Amount	Available Amount	Status	Expire Date	Review Date	Details
	🔍	🔍	🔍	🔍	🔍	🔍	📅 🔍	📅 🔍
	Merchant Exposure	EUR	1.00	1.00	Expired	05/01/2023	26/01/2022	
	Merchant Exposure	AFN	11.00	11.00	VersionClosed	09/01/2022	30/12/2021	
	Merchant Exposure	AFN	12.00	12.00	VersionClosed	09/01/2022	30/12/2021	
	Merchant Exposure	AFN	14.00	14.00	Closed	09/01/2022	30/12/2021	
	Merchant Exposure	EUR	123.00	123.00	VersionClosed	04/01/2023	04/02/2022	

5 10 20
1 2 3 4 5 ...

## Creating Limits

### IMPORTANT!

The [LimitMandatoryForIndividual](#) Loan Management system parameter allows financial institutions to specify whether their system should validate limits for individual customer, the same way it validates limits for legal entity customers. The limits for legal entities and groups are validated by Loan Management by default.

To create a new limit record for a customer, follow these steps:

1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Customer Limit** menu item to open the **Customer Limits List** page.
3. Click the **Insert** button to display the **Customer Limit** page.

The screenshot shows the 'Customer Limit' form with the following fields and values:

- Customer:** Mimi's Company
- Currency:** EUR
- Is Group:** ☐
- Group:** (empty)
- Limit Type:** Product Exposure
- Limit Date:** 21/01/2022
- Is Revolving:** ☒
- On Repayment:** ☒
- Product:** SLICE Loan
- Limit Amount:** 1,000,000
- Available Limit Amount:** 1,000,000
- Is Mandatory:** ☒
- Expire Period Type:** Years
- Expire Period:** 1
- Expire Date:** 21/01/2023
- Review Date:** 21/06/2022

Alternatively, click the **Add New Customer Limit** button in the **Customer Limits dashboard** to display the same **Customer Limit** page.

Or you can manage limits at a customer level from the **Customer Core** menu, by selecting a customer from the list and managing their limit records within the **Groups & Limits** tab.

4. Fill in the following fields:

- **Customer** - Select the customer to whom the limit is associated.
- **Currency** - Select the currency for this limit.
- **Is Group** - Select the checkbox if the customer represents a group.
- **Group** - If the customer is not a group, this field is read-only. If the customer is a legal entity that is also a group, the name of the group is automatically filled in.
- **Limit Type** - Select the type from the list Total Exposure, Product Type Exposure, Product Exposure, Exchange Exposure, Country Exposure, Company Exposure, each predefined type explained in the [Limits](#) page, or Role-based limits (such as Merchant Exposure) associated with the same role that the customer has in its record.

If a customer has a role, then they can have role-based limits configured with a limit type associated to the same role. For example, if the customer is declared as Merchant, they can have a limit based on a limit type with the associated Merchant role.

### IMPORTANT!

The correlation between the limits and group is important as the limits on the parent entity affect the child entities. If the customer is a group, two additional types of exposures are available: country and company exposure.

- **Limit Date** - Enter the date when the limit becomes active. It is automatically completed with the current date, but it can be changed.
- **Is Revolving** - If you select this checkbox, then the limit is a revolving limit, meaning that the Available Amount of the limit is replenished either on each repayment of the principal or on loan contract closure, depending on the On Repayment field's value. If the checkbox is not selected, then the limit is not revolving in any circumstances. The default value is True.

- **On Repayment** - You can only select this if `Is Revolving = True`. If selected, then the Available Amount of the limit is replenished on each repayment of the principal with the repayment value. If the checkbox is not selected for a revolving limit, then the limit amount is replenished on contract closure with the amount of the contract. The default value is `True`.

#### NOTE

You can't modify the `On Repayment` and `Is Revolving` fields after limit approval. If you must change these properties, close the limit and open a new limit with the required setup.

- **Limit Amount** - Select the amount representing the limit for the credit.
- **Available Limit Amount** - This field is automatically completed by Loan Management with the remaining amount, e.g. if the total exposure was \$5 million, a credit was given for \$3 million, \$2 million is still available.
- **Is Mandatory** - Selected by default. At limit validation at the contract level, when the existing limit's available amount is smaller than the value of the contract, then Loan Management checks the limit's `Is Mandatory` field. If `Is Mandatory = True`, then an error is raised that the limit is reached and the contract cannot be approved, otherwise, if `Is Mandatory = False`, a warning is presented but the contract can be approved.

#### NOTE

The `Is Mandatory` field's value cannot be changed from `False` to `True` when versioning a limit until `Available Limit Amount >= 0`.

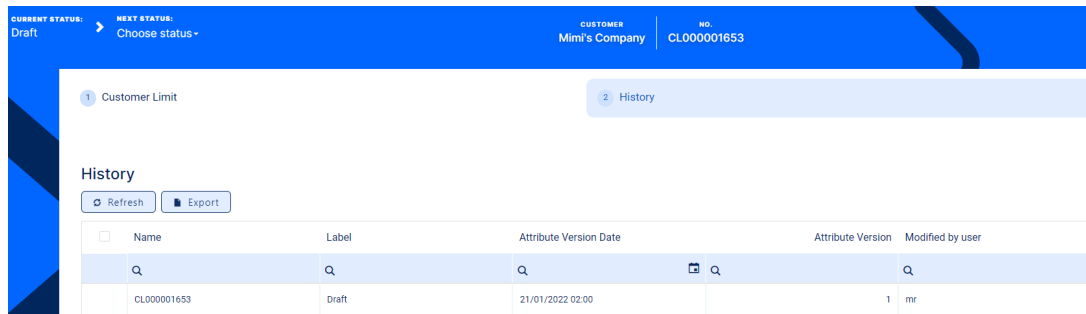
- **Expire Period Type** - Select from the list the period type applicable for this limit: `Days`, `Weeks`, `Months`, `Years`, or `Once`.
- **Expire Period** - Insert the number for the period, e.g. `4`, i.e. 4 months.

- **Expire Date** - This field is automatically completed with the date when the limit expires, as calculated based on the values entered in the previous fields.
- **Review Date** - Select a date when the limit is reviewed.

5. Depending on the type of exposure selected, fill in these additional fields:

- For Exchange exposure, select the **Exchange currency limit** from the list.
- For Product Exposure, select the **Product** from the list. From the total exposure amount, you can set a limited amount to be given on a certain product. For example, for a corporate term loan to give only \$2 million dollars while the total exposure is \$3 million.
- For Product Type Exposure, select the **Product Type** from the list. If the type is secured by an asset, then select the **Product type is secured** checkbox.
- For Country Exposure, select the **Country** where the limit is available.
- For Company Limit, select the **Company** for which the limit applies from the list of group members. See [Groups](#) for details about groups.

6. Click the **Save and Reload** button. Loan Management saves the limit and generates a number for a record, then displays it at the top of the page along with the name of the customer. The **History** tab is also displayed, containing information about each version of the record.



The screenshot shows the 'History' tab of the 'Customer Limit' record. At the top, the current status is 'Draft' and the next status is 'Choose status'. The customer is 'Mimi's Company' and the limit number is 'CL000001653'. Below the tabs, there are 'Refresh' and 'Export' buttons. A table displays the history of the record with columns for Name, Label, Attribute Version Date, Attribute Version, and Modified by user.

Name	Label	Attribute Version Date	Attribute Version	Modified by user
CL000001653	Draft	21/01/2022 02:00	1	mr

The existing contracts affected by this limit are displayed in the **Contracts** section.

**CONTRACTS**

[Export](#) [Refresh](#)

<input type="checkbox"/>	Banking Product	Name	Customer	Financed Amount	Advance Amount Value	Overdraft Limit Amount	Contract Cover Value	Activation Date	MaturityDate
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	CA/OD	3175	Geo			95,000.00		27/07/2021	27/01/2023
	Overdraft BankAccount...	2414 AG_OD	Geo			5,000.00		26/05/2021	26/06/2021
	CA/OD	3057	Geo			65,000.00		26/07/2021	26/01/2023

- Repeat to add as many limits as needed.

## IMPORTANT!

For the same customer, only one limit exposure can be added.

- Send the limit record to approval by changing its status into **Send to Approved**.
- As a user with customer limits approval rights, approve the record, so that it becomes active in the system. Approve the limit from the **Customer Limits** dashboard **>Customer Limits Approval Requests** tab or from the **Approval Tasks** menu.

## Creating New Versions of Existing Limits

The limits are [set up for versioning](#). Thus, if the details of an approved limit have to be updated, a new version of the record must be created.

To create a new version for a record with the **Approved** status, follow these steps:

1. Double-click the limit record selected for updates.
2. Click the **New Version** button in the top right corner of the page.

The screenshot shows the 'Customer Limit' form with two tabs: 'Customer Limit' and 'History'. The 'Customer Limit' tab is active, displaying fields for Limit Type (Total Exposure), Currency (EUR), Expire Period Type (Years), Expire Date (24/06/2026), Limit Amount (1,000,000), Limit Date (24/06/2021), Expire Period (5), Review Date (24/06/2026), and Available Limit Amount (849,000). In the top right corner, there is a toolbar with several icons, including a plus sign (+) which is highlighted by a yellow arrow, indicating the 'New Version' button.

A new version of the limit is created, with **Version Draft** status.

The screenshot shows the 'Customer Limit' form with the 'Version Draft' status highlighted in a yellow circle. The 'Current Status' is 'VERSION DRAFT' and the 'Next Status' is 'CHOOSE STATUS'. The form fields are the same as in the previous screenshot, but the 'Available Limit Amount' is now 849,000. The 'History' tab is also visible, showing the previous version of the record.

3. Edit the desired fields in the **Customer Limit** tab. You cannot edit the limit type, currency, group and available limit amount.
4. Click the **Save and Reload** button. The number of the record is automatically updated and displayed at the top of the page. The **History** tab is also displayed, containing information about each version of the record.

The screenshot shows the 'History' tab with a table of record versions. The table has columns for Name, Label, Attribute, Version Date, Attribute Version, and Modified by user. The table contains two rows: one for the 'Approved' version (CL000000116) and one for the 'Version Draft' version (CL000000116.2).

Name	Label	Attribute	Version Date	Attribute Version	Modified by user
CL000000116	Approved		24/06/2021 03:00	1	
CL000000116.2	Version Draft		17/08/2021 12:05	2	

If the version draft record is approved, then the original record transitions into the **Version Closed** status and the secondary version becomes the **Approved** currently active limit record.

Read more details about versioning a record on the [How to Version an Entity Record](#) page.



# Collaterals

A collateral is a property, such as securities, items of value, pledged by a borrower to protect the interests of the lender. A lender can seize the collateral from a borrower if the latter fails to repay a loan according to the agreed terms. A collateral acts as a guarantee that the lender receives the amount lent even if the borrower does not repay the loan as agreed. For example, when contracting a mortgage, the bank asks the customer to provide their house as collateral. If the customer fails to meet the repayment terms of their mortgage, the bank has the right to take ownership of the house. The bank can then sell the house in order to recoup the money that it lent to the customer.

Collateral management is the method of granting, verifying and managing collateral transactions in order to reduce credit risk in unsecured financial transactions. It is an essential and integral part of any financial institution's risk and regulatory compliance framework.

There is a wide range of possible collaterals used to hedge credit exposure with various degrees of risk:

- Cash Collateral: Fixed Deposit, Stocks, etc.
- Real estate: Property, Land
- Other: metals, commodities, etc.

## Collateral System Statuses

In Loan Management, a registered collateral has the following statuses:

- **Draft** - the status of a newly created collateral registration record that was not yet cleared to be used. While in this status, you can edit its fields. Change the status of the record to **Active** after editing all the necessary details in order to use it later in contracts.
- **Active** - the status of a collateral registration record after being authorized for usage in contracts.

- **Owned** - the collateral is being used by a contract. It is linked to a loan or any other secured product (overdraft, bank guarantee, etc).
- **Released** - the status of a collateral after closing the contract to which it was attached.

**IMPORTANT!**

In order to [use the collateral as a guarantee for covering a secured loan contract](#), it must have the **Active** status.

## Managing Collaterals

Perform the following steps to manage collaterals in FintechOS Loan Management:

1. Add new [guarantee types](#), if your financial institutions wishes to work with guarantee types other than the default ones. If not, skip to [Registering Collaterals](#).
2. Create [collateral types](#) based on the newly added guarantee types, if applicable. If not, skip to [Registering Collaterals](#).
3. [Register a collateral](#) before using it within a contract. Registration is performed based on a collateral type.

The first two steps are usually performed during Loan Management configuration, while the 3rd step is performed each time you must register an asset as a collateral, to be later on used to cover a contract.

**IMPORTANT!**

You must first register a collateral so that you can use it as a guarantee for covering a secured loan contract.

## Setting Guarantee Types

There are two guarantee types defined by default in the `GuaranteeTypes` option set that cover most of the business requirements: `Real Estate` and `Cash Collateral`.

if your financial institutions wishes to work with guarantee types other than the default ones, add new guarantee types following these steps:

1. In FintechOS Studio, click the main menu icon, expand the **Admin** menu, and click **Option Sets** to open the **Option Sets List** page.
2. Find the `GuaranteeTypes` option set, storing the guarantee types, and double-click it to open the **Edit Option Set** page.
3. In the **Option Set Items** section, click the **Insert** button to open the **Add Option Set Item** page.
4. Add the details of the new guarantee type by filling in the following fields:
  - **Name** - Enter the name of the guarantee type.
  - **Display Name** - Enter the display name of the guarantee type.
  - **Value** - Enter the value of the guarantee type.
  - **Status Id** - Select the status of the item within the option set: active or inactive. Default value: `Active`.
5. Click the **Save and Close** button. The id of the option set item is automatically generated when saving the record.

Guarantee types are further used to define [collateral types](#).

## Creating Collateral Types

In FintechOS Loan Management there is a large range of predefined collateral types:

- Predefined collaterals for Cash Collateral guarantee: Fixed Deposit, Stock, Bonds.
- Predefined collaterals for Real Estate guarantee: Land and Property.

You can create new ones for your business specific needs. To add new collateral types, follow the steps described in the [Collateral Types](#) section.

## Registering Collaterals

You should register a collateral to support managing secured loans. You can attach a registered collateral to multiple contracts if the contracts total amount does not exceed the collateral available amount.

In order to [use the collateral as a guarantee for covering a secured loan contract](#), you must first insert it in the collateral register. Follow these steps to register a collateral:

1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Collateral Register** menu item to open the **Collateral Register List** page.

On the **Collateral Register List** page, you can add new collateral records or search, edit, and delete existing ones.

COLLATERAL REGISTER LIST						
<input type="checkbox"/> Description	Customer	Currency	Available Amount	Status	Next Evaluation	Last Evaluation
Q	Q	Q	Q	Q	Q	Q
CR000000042	LGL1603	EUR	400,000.00	Active	31/10/2021	
CR000000043	LGL1603	EUR	44,000.00	Active	31/10/2021	
CR000000045	Fanica SRL	EUR	85,000.00	Owned	25/10/2026	
CR000000046	LPinzi	EUR	1,000,000.00	Active	03/11/2022	
CR000000047	Geolina	EUR	0.00	Owned		

### NOTE

Collateral register records with an Owned status cannot be deleted. See [Collateral System Statuses](#) for more details.

3. Click the **Insert** button on the **Collateral Register List** page to add a new collateral register.
4. In the newly displayed **Add Collateral Register** page, fill in the following fields:

EDIT COLLATERAL REGISTER

Name	CRO00000040
Collateral Type	Others
Market Value	50,000
Available Value	10,000
Deposit Bank Account	
Start Date	
Renewal Date	
Evaluated By	
Next Evaluation Date	06/10/2022
Description	
Currency	EUR
Adjusted Value	25,000
Bank Account	
Expiry Date	
Right On Good	[none]
Last Evaluation Date	
Attached File	Add file or Drop file here

- **Name** - Automatically completed by Loan Management after saving the record, it displays the id of the collateral.
- **Customer** - Select the customer who owns the collateral. A collateral may have many owners. If this is your case, enter the rest of the owners in the **Collateral Owners** section as guarantors.  
Only displayed when registering a new collateral.

- **Collateral Type** - Select the type of the collateral from the drop-down list.
- **Currency** - Select the currency of the collateral. It can be different from the currency of the contract which uses this collateral as a guarantee.
- **Next Evaluation Date** - For Real Estate collaterals, you can insert the next evaluation date. Only displayed when editing an existing collateral register.

5. Optionally, fill in the following fields:

- **Market Value** - Enter the market value of the collateral which is taken into consideration. Only applicable for Real Estate and Others collateral types.
- **Adjusted Value** - The percent that should be covered by the collateral is set in at the banking product level, in the Collateral Cover Percent field. Only applicable for Real Estate and Others collateral types, it is automatically calculated by Loan Management.
- **Available Value** - If the collateral is used to cover other loans, Loan Management automatically calculates the remaining value and displays it in this read-only field.
- **Bank Account** - Enter the customer's current account so that the funds within the account can serve as a guarantee.
- **Deposit Bank Account** - Select the deposit bank account of the customer from the list of accounts with Open status and type different than Loan Term Account. Only applicable for Cash collateral types.
- **Start Date** - Select the start date for the collateral registration.
- **Expiry Date** - Select the end date for the collateral registration.
- **Renewal Date** - Select the date when the collateral registration is renewed.
- **Evaluated By** - Select the customer who evaluated the collateral.

- **Right On Good** - Select the type of rights held on the collateral goods. Possible values: Full Property, Naked Property and Usufruct.
- **Last Evaluation Date** - For Real Estate collaterals, you can insert the previous evaluation date. Only displayed when editing an existing collateral register.
- **Description** - Enter a suggestive description for the collateral.
- **Attached File** - Attach files relevant for the collateral.

6. Click the **Save and Reload** button.

After saving the record, fill in the new sections displayed in the page, with specific information:

## Add Collateral Register Rank

In the **Collateral Register Rank** section, you can insert, delete or export collateral register ranks.

To add a rank:

1. Click **Insert** and fill in the following fields:
  - **Parity On Rank** - Select the checkbox to mark the collateral with parity on rank.
  - **Rank** - Select the rank of the collateral.
  - **Owner** - Select the customer who owns the collateral.
2. Click the **Save and Close** button.

## View Contract Collaterals

The list within the **Contract Collateral** section is automatically generated, displaying the contracts where the current collateral is used as guarantee, if such contracts exist. The following information is displayed:

- **Contract** - The id of the contract where the collateral is attached.
- **Status** - The status of the contract.
- **Collateral Register Value** - The value of the registered collateral.
- **Collateral Register Value Usage (%)** - The percent from the collateral used for coverage within the contract.
- **Value in Contract Currency** - The value of the collateral expressed in the currency of the contract.

To edit a collateral attached to a contract from this list:

1. Double-click the record and perform the desired updates in the **Edit Contract Collateral** page.
2. Click the **Save and Close** button.

## Manage Collateral Owners

A collateral may have multiple owners. The customer whom you previously entered before saving the collateral register record becomes the main owner. To add other registered customers who partially own the collateral, use the **Collateral Owners** section of the **Edit Collateral Register** page. The other owners of the collateral are considered guarantors of the contract, and they should consent on this. They are stored in the **Collateral Register Owner** entity.

To add an owner:

1. Click **Insert** and fill in the following fields:
  - **Collateral** - Automatically filled in by Loan Management with the id of the collateral register record.



- **Customer** - Select the customer who partially owns the collateral and becomes a guarantor for contracts where the collateral is used.
2. Click the **Save and Close** button.

## Manage Collateral Register Participants

In the **Collateral Register Participants** section, you can insert, delete or export customers who participate to the collateral in a specific role such as notary, valuer, etc.

To add a participant:

1. Click **Insert** and fill in the following fields:
  - **Participant** - Select the customer who is a participant to the collateral.
  - **Participant Role** - Select the role of the customer in this collateral.
2. Click the **Save and Close** button.

## Manage Collateral Register Documents

In the **Collateral Register Documents** section, you can insert, delete or export collateral documents.

To add a document:

1. Click **Insert** and fill in the following fields:
  - **Document Type** - Select the type of the document that is uploaded for the collateral.
  - **Collateral File** - Attach the file to be uploaded.
2. Click the **Save and Close** button.

# Contracts

Any agreement between a bank or a financial institution and a customer regarding the usage of a banking product is documented legally with a contract.

FintechOS Loan Management allows financial institutions to create banking product agreements (contracts) for their customers based on approvals. This is how Loan Management indicates the selling of a banking product, recording a contract to reflect the product and negotiated details within the origination process.

## Contract Implementation Notes

- The contract approval is made according to the specifications of the financial institution set during the implementation process.
- The integration is done according to the financial institution's requirements.
- The contract should be approved only after the advance is paid. This should be applicable for loan contracts with a stipulated advance amount or percent to be paid on the first disbursement day (for merchant loans), in order to avoid having to close newly created contracts if the process of collecting the advance and potential fees fails.

## Managing Contracts

**NOTE**

Loan Management enables you to manage contracts via the user interface or via integration through APIs. For information about the available endpoints, please visit the [Loan Management Developer Guide](#).

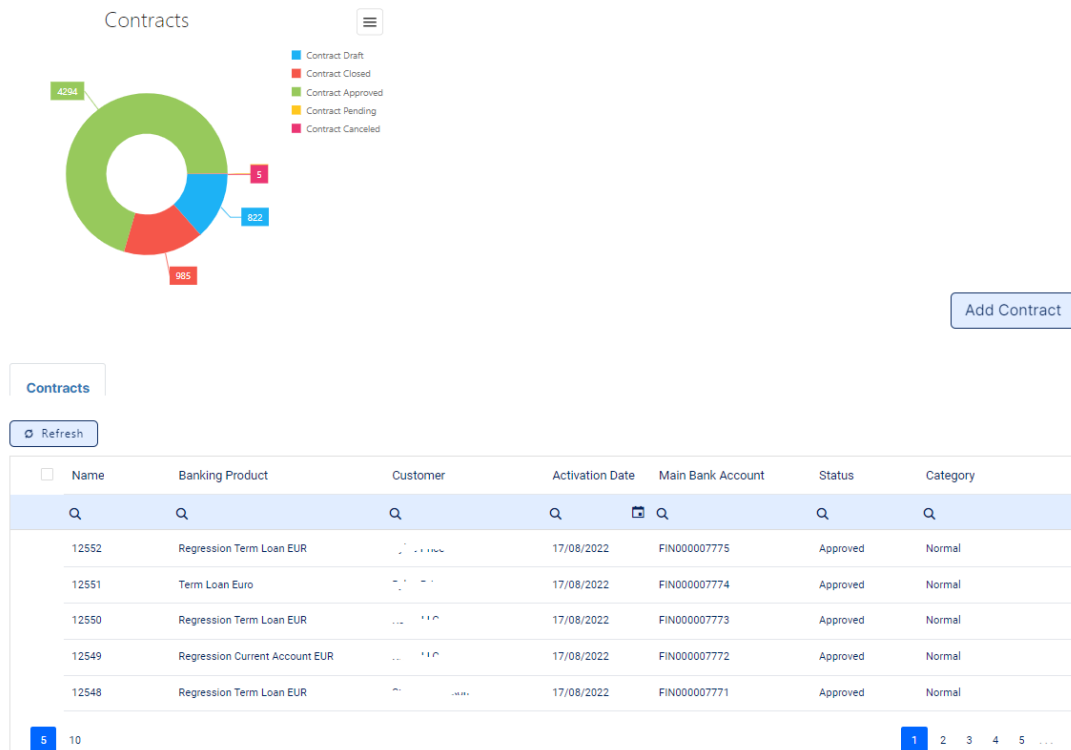
For information about managing contracts via the user interface, continue reading this page.

To manage contracts:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Contract** menu item to open the **Contracts** page.

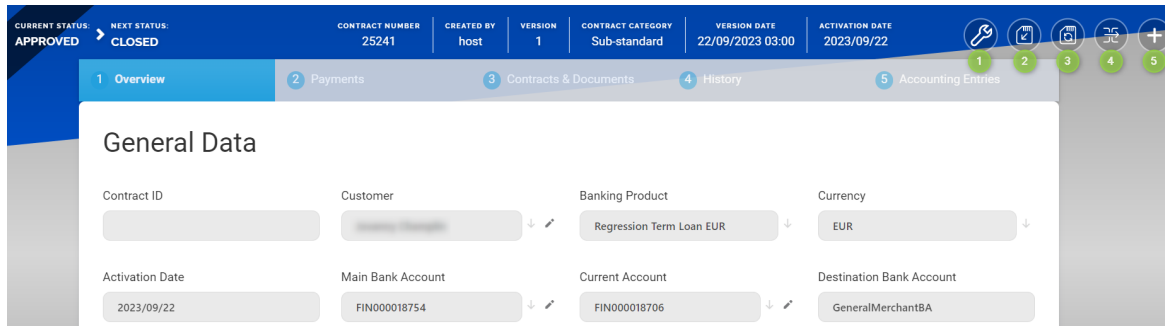
CONTRACT							
<input type="checkbox"/>	Name	Banking Product	Customer	Activation Date	Main Bank Account	Status	Category
	Q	Q	Q	Q	Q	Q	Q
	12537	Regression Current Account EUR	...	17/08/2022	FIN000007760	Approved	Normal
	12536	Regression Current Account EUR	...	17/08/2022	FIN000007759	Approved	Normal
	12534	Regression Term Loan EUR	...	17/08/2022	FIN000007758	Approved	Normal
	12533	Regression Current Account EUR	...	17/08/2022	FIN000007757	Approved	Normal
	12532	Regression Term Loan EUR	...	17/08/2022	FIN000007756	Approved	Normal
5	10	20					
							1 2 3 4 5 ...

Alternatively, you can select the **Contracts dashboard**.



On the **Contracts** page, you can add new contract records or search, edit, and delete existing ones in Draft status.

Loan Management has a series of buttons that help shorten the processes of managing contracts. Such actions aid you quickly streamline several processes. In the selected contract's page, in the top right corner, a series of buttons (depicted below in green) trigger different actions.



- Button 1 is the **Open Product Admin Configuration** button. View the [product service configuration](#) applicable to the banking product associated to a specific contract from the contract itself, clicking this button.
- Button 2 is the **Save and close** button.
- Button 3 is the **Save and reload** button.
- Button 4 opens the **Contract Business Workflow Transitions List**.
- Button 5 creates a **new version of the existing contract**. The new version has to be approved before the customer starts using it. If it is NOT approved, then the initial version can still be used.

## Loans

A loan is a banking product which defines a loan for a specific amount, that has a specified repayment schedule and either a fixed or floating interest rate. Loan Management enables you to create contracts based on term loan products and to manage such contracts. Read about the operations that you can perform for the various types of loans: revolving loans, unsecured personal loans, secured loans, credit facility, SME loans.

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## Loan Contract Life Cycle and States

The four-eyes principle is applicable for all contracts in FintechOS Loan Management, meaning that a record should be approved by a second financial institution employee, with higher authorization rights. This is enabled via approval task FintechOS Platform capabilities and thus it is also a financial institution's responsibility to set proper [security roles](#) and access rights to its users, in order to make sure that the same user can't insert and also authorize the same record.

A contract record has the following business workflow statuses:

- **Draft** - the status of a newly created contract record that was not yet sent for approval. While in this status, you can edit some fields, but you can't add events (payments) to it. Send the record to approval after editing all the necessary details.
- **Pending** - this is a system status applied to contracts sent for approval, but not yet approved. No updates are available in this system status.
- **Approved** - the status of a contract record after being authorized by a user with contract approval competencies. While in this status, you cannot edit the record's details, but you can add events to it within the **Payments** tab. If you need to alter the contract's details, create a new version based on the current contract.

### NOTE

Each event must also be approved by a user with contract approval competencies, otherwise, the transaction is not performed by the system. New contract approval is blocked by Loan Management if the customer has overdue days  $\geq$  the value of the [DelayDaysForBlockNewContractApproval](#) parameter.

- **Closed** - the last status of a contract, after manually closing it or after creating a new version based on the current version. No updates are allowed on the record.

- **Canceled** - the status of a contract after manually canceling it straight from the **Draft** status. No updates are allowed on the record.

#### NOTE

Change the contract's status to **Approved** so that the customer can use the contract and in order to apply transactions to it.

### Contract Versioning

Loan Management allows you to create new versions for an existing contract if you need to modify an existing approved contract. New versions are automatically created when the payment schedule is modified - that implies any increase/ decrease, change of costs, reschedule or payment holiday transactions.

A contract version can have the following statuses:

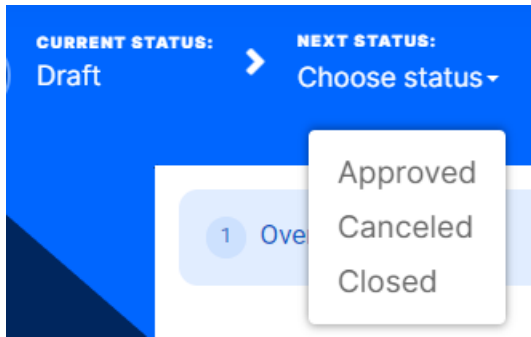
- **Contract Version Draft** - the status of a newly created contract version record that was not yet sent for approval. While in this status, you can edit some fields, but you can't add events (payments) to it. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a contract version record after being authorized by a user with contract approval competencies. While in this status, you cannot edit the record's details, but you can add events to it within the **Payments** tab.
- **Contract Version Closed** - the last status of a contract version, after manually closing it or after creating another new version based on the current version. No updates are allowed on the record.

#### NOTE

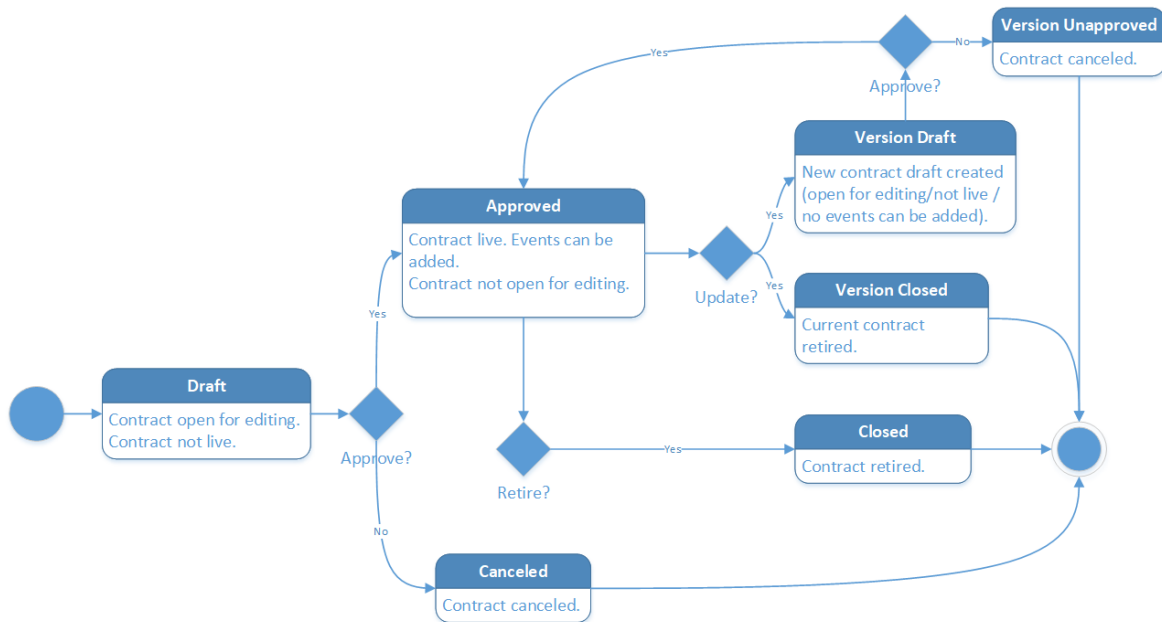
All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event outside regular schedule is approved for that contract.

### Changing Contract Statuses

You can manage a contract's life cycle by changing its status from the top right corner of the screen.



The contract status transitions are illustrated below:



Note that:

- Once a record is live, its settings can no longer be modified.
- If you want to update the details of a live contract, you must create a new contract version.
- When you create a new contract version, the current version is retired and moved to history; no updates are allowed on the retired version.
- Every contract version starts in a draft state and must go through an approval process



before going live.

- Only one version of a contract can be live at one time.

**NOTE**

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Creating A New Unsecured Loan

An unsecured loan is a loan that doesn't require any type of collateral. Instead of relying on a borrower's assets as security, financial institutions approve unsecured loans based on a borrower's creditworthiness.

Before creating a unsecured term loan contract, make sure that:

- the customer is recorded in Loan Management,
- a settlement account (a current account contract for the same customer) is set up for the desired currency,
- and the limits are configured according to Loan Management's setup.

To create a new contract:

### 1. Add Minimum Contract Data

1. Open the **Contracts** page as described in the [Managing Contracts](#) section.
2. Click the **Insert** button to display the **Add Contract** page, the initial page when you insert any type of contract.

ADD CONTRACT

Contract

Customer Type

↓

Product Type

Term Loan

↓

Customer

Jane

⊗ -

Banking Product

Retail Term Loan

⊗ -

3. Fill in the following fields:

- **Customer Type** - Optionally, select the type of the customer for the contract, to filter the displayed customers in the next field.
- **Customer** - Select from the list the customer for whom you are creating a contract.
- **Product Type** - Select from the list the product type to filter the list of banking products accordingly.
- **Banking Product** - Select from the list the desired banking product. Only the products attached to a [product service configuration](#) in **Approved** status are available for your selection.

**NOTE**

Be careful when choosing the values for the previously mentioned fields because you can't modify them after saving the contract!  
Make sure that you select Term Loan in the Product Type field and an Unsecured Loan banking product in the Banking Product field.

4. Click the **Save and Reload** button.

Loan Management saves the contract in **Draft** status, with minimum default information, such as an auto-generated contract number, created by, version and version number. The previously provided details are kept on screen in the **General Data** section, but they are no longer available for update. The **Currency** has been updated from the banking product level.

**General Data**

Contract ID	Customer	Banking Product	Currency
	Jane	Term Loan Euro	EUR
Activation Date	Main Bank Account	Current Account	Destination Bank Account
17/08/2022			
Amount	Advance Amount Percentage	Advance Amount Value	
	0	0	
Start Calculation Date For Amount Unused	Maximum Disburse Date		Managing Branch
			root
Auto disbursement	Direct Debit Settlement Account	Sales Channel	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Assisted Contract	

**Product Interest Rate**

Interest Commission Item	Product Interest	Date for Review Interest Rate
Onboarding Loan I&C		

Proceed to the next steps where the details about the contract are captured and validated against the underlying product, setting the basic elements for the creation of a contract such as customer, banking product, account, interest rate, participants, tranches, fees, and contract covenants, within the newly displayed **Overview** tab.

## 2. Add General Data to the Contract

**General Data**

Contract ID	Customer	Banking Product	Currency
	Jane	Term Loan Euro	EUR
Activation Date	Main Bank Account	Current Account	Destination Bank Account
17/08/2022		FIN000004405	
Amount	Advance Amount Percentage	Advance Amount Value	
5,000	0	0	
Start Calculation Date For Amount Unused	Maximum Disburse Date		Managing Branch
17/08/2022	17/09/2022		root
Auto disbursement	Direct Debit Settlement Account	Sales Channel	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Assisted Contract	

### 1. Fill in or modify the following information:

- **Current Account** - Select the current account to be used for settlement.

- **Destination Bank Account** - Enter the destination bank account number, an account where the disbursements should be performed, if it's different from the current account selected previously. If the destination bank account belongs to a different customer than the one owning the contract, then any disbursement event happens in that customer's account, and the operation transaction record at the Subledger level mentions the name of that customer in the **Destination Partner** field. For example, if you input the bank account of a merchant, then the disbursement happens in the merchant's account and the operation transaction record mentions the merchant's name in the **Destination Partner** field.
- **Amount** - Enter the actual amount of credit for the contract.
- **Advance Amount Percentage & Advance Amount Value** - Use these in case the product requires a first installment to be claimed on granting the loan itself, or as approval condition - used for orchestrating BNPL where the customer needs to provide a certain amount before benefiting from the loan; requires orchestration of the payment and the approval of such contract should happen only on instruction that payment for advance has been supplied. The 2 fields change one based on the value inserted in the other, so if you insert a percentage the amount is updated based on loan amount.

**NOTE** Limit validations for contracts with advance amount >0 are performed for Amount - Advance Amount. When the contract is activated, the available limit amount is decreased with the (Amount - Advance Amount) value. Auto Disbursement = True and cannot be changed for contracts with advance amount >0. If the advance amount is changed back to zero, then the

value of the Auto Disbursement checkbox becomes the default value set at the banking product level and can be edited.

- **Sales Channel** - Select the channel through which the contract is created.

2. Optionally, fill in or modify the following information:

- **Contract ID** - Enter a contract ID other than the contract number generated automatically by Loan Management when you saved the contract.
- **Activation Date** - Modify the date when the contract is activated. It is automatically completed with the system date.
- **Start Calculation Date For Amount Unused** - Enter the date when commitment fee starts being applied. There are instances when, because the loan is granted, the financial institution needs to reserve those funds and make sure they are available when the customer asks for a disbursement, provided all other conditions are met. For such cases, when the financial institution does not generate income from interest, they might want to have a minimum income and thus the commitment fee (commissions with Commission Unsuaage type). They can also allow for an interval for the amounts to be used and start applying such commissions post that interval.
- **Maximum Disburse Date** - Select the maximum date by which the loan should be used for the approved contract. It can be that it is required because of internal policies or legislation – such in case of an investment or a mortgage, if you do not use the funds for 6 months, there might be a need for a reassessment. If not selected, this date is calculated based on the Maximum Period Disburse After Activation (Months) from the banking product level, and Maximum Disburse Date = Maturity Date - 1.

- **Managing Branch** - This represents the branch of the organization where the contract was created. Suppose you work in a branch or credit center, and you need cases to be linked to a specific location so that you can properly allocate them for further actions. It is automatically completed at contract saving time, but you can select another branch from the list.
- **Auto disbursement** - Select this checkbox if the financed amount must be automatically disbursed on the approval of the contract. If selected, Loan Management performs the disbursement transaction immediately after contract approval, and the funds are moved to the settlement account or destination account as per instructions. The auto disbursement property is set at banking product level, but it can be modified at the contract level. The following validations are performed for this checkbox:
  - If the contract has multiple tranches, then Auto disbursement = False and it cannot be edited.
  - If Auto disbursement = True and the contract approval date = activation date, then Loan Management does not generate a new version for the contract.
  - If Auto disbursement = True and the contract approval date > activation date, then Loan Management generates a new version for the contract.
- **Direct Debit Settlement Account** - Select this checkbox if the automated settlement of repayment notifications (the direct debit settlement account) functionality is turned on at the contract level. The value of the checkbox was set at the product service configuration level, but it can be modified at the contract level. The checkbox can be edited in all the statuses of a contract except Version Closed, Closed, and Canceled.

**NOTE** The Direct Debit Settlement Account setting at the customer level takes precedence over the setting at the contract level when creating new contracts. For existing contracts, Loan Management applies the setting configured within the [CustomerToContractDirectDebitSettlementAcc](#) system parameter.

3. Click the **Save and Reload** button.

### 3. Enter Repayment Information for the Contract

In the **Repayment Overview** section you should enter term, schedule type and first due date so that Loan Management can properly build the repayment schedule. Optionally you can set a grace period, mention if the due date should always be on the last day of the month and if there is any manual value for the installment.

**Repayment Overview**

Schedule Type Equal Installment Monthly 360	Contract Period 12	Contract Period Type Months	Maturity Date 2023/4/10/18
Due Day 18	Periodicity Type Monthly	Installment Method Next Period	First Due Date 2023/3/11/18
	Number of Installments 12	Principal Grace Period (Months) 0	Interest Grace Period (Months) 0
Repayment at end of month <input type="checkbox"/>	Is Manual Value <input type="checkbox"/>		

1. Fill in or modify the following information specific to the contract's repayment schedule:
  - **Schedule Type** - Select the [payment schedule type](#) to be used to calculate the installments of this contract. You can select one of the payment schedule types associated to the underlying banking product. Loan Management uses the schedule type to build the repayment plan with equal instalments or linair payments, include fees on the schedule and arrive to the day basis to be

used for interest calculation (30/360).

- **Contract Period** - Edit the term of the loan that was automatically completed with the number of contract periods of the type defined at banking product level, according to your needs. The contract period is used together with Contract Period Type and Periodicity Type. They all need to be in sync and also in sync with the schedule definition itself, and if there are multiple definitions allowed on the product, make sure to pick those working together.
- **Contract Period Type** - This field is automatically completed with the contract period type as it was defined at banking product level. You can't edit this value.
- **Maturity Date** - This field is automatically completed with the contract maturity date, calculated based on the values of the Contract Period, Contract Period Type, Due Date and Activation Date.
- **Due Day** - Enter the exact day of month for installment repayment. If it is set to 31, then the system takes the last day of month. If you manually select the **First Due Date**, then this field is automatically completed and not editable. If the periodicity and the repayments are set to every 30 days, Loan Management defaults the due date based on the activation date.
- **Periodicity Type** - Select the time interval for the repayment schedule. Possible values are set at the banking product level. If the periodicity is set to **Once**, then the payment happens one time, at loan maturity. You can only select from periodicity types with the same measurement unit as the selected schedule type's contract period type. For example, if the value in the **Contract Period Type** is **Days**, you can only select a periodicity type whose measurement unit is in days.
- **Installment Method** - Select the installment method to calculate if the first due date is set into the current month or in the next month. Possible values:



- **Actual Period**, with the first installment's due date calculated within the same calendar month;
- **Next Period**, with the first installment's due date calculated within the next calendar month after contract approval.
- **First Due Date** - Select the date of the first due installment. If you manually select the **Due Day**, then this field is automatically completed as calculated based on the information within the **Due Date**, **Periodicity Type** and **Installment Method**, and it is not editable.
- **Initial Royalty** - The field is displayed only if **Is Manual Value** = **True**. You can edit it entering the value of an installment. It can be filled in if the selected schedule type is of type **Equal Installment**. If at the selected payment schedule type's level the **Installment Value Custom** field is **False**, then the **Initial Royalty** field at the contract level is read only.
- **Initial Principal Value** - The field is displayed only if **Is Manual Value** = **True**. You can edit it entering the value of the principal within an installment. The field can be filled in if the selected schedule type is of type **Equal Principal**. If at the selected payment schedule type's level the **Installment Value Custom** field is **False**, then the **Initial Principal Value** field at the contract level is read only.
- **Number of installments** - This field is automatically completed with the number of installments to be paid for this contract, calculated based on previously defined values.
- **Principal Grace Period (Months)** - This field is displayed only if the product service configuration allows a principal grace period. Enter a value in months for the grace period allowed for principal repayment for this contract. The value inserted in this field should be between the minimum and maximum grace period set at the product service configuration level.

- **Interest Grace Period (Months)** - This field is displayed only if the product service configuration allows an interest grace period. Enter a value in months for the grace period allowed for interest repayment for this contract. The value inserted in this field should be between minimum and maximum grace period set at the product service configuration level.

**NOTE** You can change the grace period only until the first installment is notified.

- **Repayment at end of month** - If you select this checkbox, then the due day of the contract is automatically set to the last day of the month, and the repayment schedule is calculated with an installment in the last day of month.
- **Is Manual Value** - If you select this checkbox, then you can manually enter the value for royalty or principal, thus overriding the values automatically calculated by Loan Management.
  - If `Is Manual Value = False`, then the `Initial Royalty` and the `Initial Principal Value` fields are not displayed.
  - If at the selected payment schedule type's level the `Installment Value Custom` field is `False`, then the `Is Manual Value` field at the contract level is read only.
  - If `Installment Value Custom = True`, then the `Is Manual Value` field at the contract level is editable, with `False` default value.

2. Click the **Save and Reload** button.

## 4. Manage Product Interest Rate for the Contract

Enter the details about the Product Interest Rate applied to the loan. Depending on the product definition again, you have a list of interest definitions that you can bring along to the contract.

### Product Interest Rate

Interest Commission Item	Product Interest	Date for Review Interest Rate
<div style="border: 1px solid #ccc; padding: 2px; display: inline-block;">TL_INTCOLL</div> <div style="font-size: 0.8em; vertical-align: middle;">↓</div>	<div style="border: 1px solid #ccc; width: 150px; height: 20px; display: inline-block;"></div> <div style="font-size: 0.8em; vertical-align: middle;">↓</div>	<div style="border: 1px solid #ccc; width: 150px; height: 20px; display: inline-block;"></div> <div style="font-size: 0.8em; vertical-align: middle;">📅</div>

Please Click 'Save And Reload' to view or change the interest rate plan

To manage the product interest rate as it must be applied to this contract:

1. Fill in or modify the following fields:
  - **Interest Commission Item** - This field is automatically completed with the interest & commission item defined at the product level, if only one item is found at the product level. If the selected product has more items, you must select one from the list.
  - **Product Interest** - Select from the interest to be applied for this contract. Only the interests associated to the selected banking product are displayed within the list. Penalty interests cannot be selected here.
  - **Date for Review Interest Rate** - Enter the date for reviewing the interest rate applicable for the remaining amount. This date must be between Activation Date and Maturity Date, otherwise, an error is displayed.  
 For variable interest, this field is automatically completed with the Reference Rate Date + Reference Interest Period of the underlying interest definition, from the base type interest attached to variable interest. You can edit this field. For months where the date is over lapsed, the last day of the month is used for the calculation (for example, if you specify 30, then in February the system takes the last day, which can be the 28th or the 29th).
2. If the underlying interest definition has referenced a variable interest rate, the details included other fields for you to complete:
  - **Margin** – The margin applicable on top of the variable interest rate.
  - **Reference Rate Date** – The date to be considered in order to arrive to the applicable rate for the underlying variable interest (EURIBOR as of 30th June 2022).
  - **Reference Rate** – The underlying rate for the variable interest as captured in Loan Management for the date above.

- Click the **Save and Reload** button.

**NOTE**

Fill in any other mandatory fields from the **General Data** and **Repayment Overview** sections, otherwise you can't successfully save the contract.

## 5. Manage Contract Level Interest & Penalty Interest Rate

Define the information about the contract interest rate (or rates, if you selected a **Collection** type interest rate in the previous **Product Interest Rate** section) in a table format, in the section **Contract Interest Rate** section, which appears only after saving the selected product interest rates. The **Contract Penalty Interest Rate** section, similar to the one above, helps you manage penalty interest rates applicable to the contract when there are overdue amounts according to the definition of penalty interest and included operation item elements. If the penalty interest has multiple interest values, at contract generation Loan Management brings only the penalty interest value for which the current date falls in the interest value interval.

You can edit the tables cells, so you can customize the interest rates selected at the product level, if the interest and commission list was defined as negotiable, to obtain the desired interest rates configuration at the contract level. You can also add or delete interest rates, using the **Add Interest Rate**, **Add Penalty Interest Rate**, respectively the **Delete** buttons above the tables. Thus, the tables enables you to work with multiple interest rates at the contract level.

Contract Interest Rate

<input type="checkbox"/>	Interest	Start Date	End Date	From Install...	To Installment	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Notified	Past Unnotifi...
<input type="checkbox"/>	Fixed 4%	22/07/2022	15/07/2027	1	12	4.0000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Corporate Floa...	22/07/2022	15/07/2027	13	60	4.0000	0.0000	6.0000	1.2600	7.2600	<input type="checkbox"/>	<input type="checkbox"/>

**NOTE**

The information disappears if you change the product interest, tenor, first

due date, maturity date, contract period, or activation date. In this case, save the contract again to display the updated information.

To customize the information specific to each of the contract's **interest rates**:

1. In the **Contract Interest Rate** section, edit the existing information that was automatically completed based on your product interest rate selections:
  - **Interest** - Automatically completed with the interest (or interests, for Collection type product interest rate) selected in the previous **Product Interest Rate** section. You can select from the drop-down list the interest to be applied for this contract. Only the interests associated to the selected banking product are displayed within the list. Penalty and overdraft interests cannot be selected here. Depending on the selected interest, other fields can be displayed to be filled in.
  - **Start Date** - The interest's start date, automatically completed with the contract's activation date.
  - **End Date** - The interest's end date, automatically completed with the contract's maturity date.
  - **From Installment** - The first installment for which this interest is applied to the contract.
  - **To Installment** - The last installment for which this interest is applied to the contract.
  - **Minimum Interest Rate** - This read-only cell is automatically completed with the minimum interest rate applicable for the contract, defined at the banking product level.
  - **Fixed Rate** - The fixed rate of the interest. You can only change it if the interest at the banking product level was marked as **Is Negotiable**.
  - **Margin** - This cell is automatically completed with the margin of the previously selected product interest. You can only change it if the interest at the banking product level was marked as **Is Negotiable**. If the product interest was not selected, you can manually enter the

margin.

- **Reference Rate** - This read-only cell is automatically completed with the interest type's definition's reference rate valid at the previously selected date.
  - **Total Interest Rate** - This read-only cell is automatically completed with the calculated total interest rate of the previously selected product interest and any values entered for margin and reference rate. If the product interest was not selected or if the interest at the banking product level was marked as *Is Negociable*, you can manually enter the interest rate.
  - **Notified** - This is a read-only checkbox. For contracts in *Version Draft* status, it shows you whether the installments range shown on this table line was already notified or not.
  - **Past Unnotified** - This is read-only cell read-only checkbox. For contracts in *Version Draft* status, it shows whether there are days that already passed from the current month's not yet notified installment, days for which you can't change the interest rate.
2. After performing the desired changes, make sure that the interest rate (s) cover the entire tenor of the contract, from activation date until maturity date, and there are no overlapping intervals, otherwise an error prevents you from approving the contract.
  3. Click the **Save and Reload** button.

Later, after contract approval, the contract repayment schedule is calculated taking into consideration the contract interest rates as defined in this section. For example, for multiple interest rates, the installment amounts differ depending on the interest rate applicable for those installment numbers. The picture below shows different values calculated for the repayment schedule of a loan with multiple interest rates, where an interest rate was applied for the first 12 installments, and another interest rate was applied for the rest of the installments.

## Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif.No.
1	15-08-2022	200,000.00	600.00	8,082.10	10.00	8,692.10	0.00	61142
2	15-09-2022	191,917.90	639.73	8,042.37	10.00	8,692.10	0.00	61735
3	15-10-2022	183,875.53	612.92	8,069.18	10.00	8,692.10	0.00	61923
4	15-11-2022	175,806.35	586.02	8,096.08	10.00	8,692.10	0.00	62929
5	15-12-2022	167,710.27	559.03	8,123.07	10.00	8,692.10	0.00	
6	15-01-2023	159,587.20	531.96	8,150.14	10.00	8,692.10	0.00	
7	15-02-2023	151,437.06	504.79	8,177.31	10.00	8,692.10	0.00	
8	15-03-2023	143,259.75	477.53	8,204.57	10.00	8,692.10	0.00	
9	15-04-2023	135,055.18	450.18	8,231.92	10.00	8,692.10	0.00	
10	15-05-2023	126,823.26	422.74	8,259.36	10.00	8,692.10	0.00	
11	15-06-2023	118,563.90	395.21	8,286.89	10.00	8,692.10	0.00	
12	15-07-2023	110,277.01	367.59	8,314.51	10.00	8,692.10	0.00	
13	15-08-2023	101,962.50	616.87	8,212.53	10.00	8,839.40	0.00	
14	15-09-2023	93,749.97	567.19	8,262.21	10.00	8,839.40	0.00	
15	15-10-2023	85,487.76	517.20	8,312.20	10.00	8,839.40	0.00	
16	15-11-2023	77,175.56	466.91	8,362.49	10.00	8,839.40	0.00	
17	15-12-2023	68,813.07	416.32	8,413.08	10.00	8,839.40	0.00	
18	15-01-2024	60,399.99	365.42	8,463.98	10.00	8,839.40	0.00	

The following picture exemplifies another example, for different interest rates applied during the same installment, where the interest is accrued daily:

Contract Interest Rate

<input type="radio"/> Interest	Start Date	End Date	From Installment	To Installment	Minim Interest ...	Fixed Rate	Margin	Reference Rate	Total Interest R...	Notified	Past Unnoti
Fix Eur 5%	2023/03/07	2023/07/06	1	5	3.0000	3.0000	0.0000	0.0000	3.0000	<input type="checkbox"/>	<input type="checkbox"/>
Fixed 4%	2023/07/07	2023/07/20	5	5	3.0000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>
Fix Eur 5%	2023/07/21	2025/03/25	5	10	3.0000	3.0000	0.0000	0.0000	3.0000	<input type="checkbox"/>	<input type="checkbox"/>
Corporate FI...	2023/03/07	2025/03/25	11	25	3.0000	0.0000	6.0000	1.2600	7.2600	<input type="checkbox"/>	<input type="checkbox"/>

Accruals And Provisions

Delete

Export

Refresh

<input type="radio"/> Classification	Contract	Calculation Date	Daily Accrual In...	Accumulated In...	Daily Accrual U...	Accumulated U...	Daily Interest P...	Accumulated In...	Daily Fee Accrual	Accumulated F...	Principal Pr
<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>	<input type="text" value="q"/>
Sub-standard	16350	2023/07/16	0.94637400	3.78549600					0.00000000	0.00000000	
Sub-standard	16350	2023/07/15	0.94637400	2.83912200					0.00000000	0.00000000	
Sub-standard	16350	2023/07/14	0.94637400	1.89274800					0.00000000	0.00000000	
Sub-standard	16350	2023/07/13	0.94637400	0.94637400					0.00000000	0.00000000	
Sub-standard	16350	2023/07/12	1.11304100	8.89000000					0.00000000	0.00000000	
Sub-standard	16350	2023/07/11	1.11304100	7.78000000					0.00000000	0.00000000	
Sub-standard	16350	2023/07/10	1.11304100	6.67000000					0.00000000	0.00000000	
Sub-standard	16350	2023/07/09	1.11304100	5.56000000					0.00000000	0.00000000	
Sub-standard	16350	2023/07/08	1.11304100	4.45000000					0.00000000	0.00000000	
Sub-standard	16350	2023/07/07	0.83478000	3.34000000					0.00000000	0.00000000	

## NOTE

Loan Management takes into consideration and recalculates the schedule even in cases when the interest is of Collection type and there are multiple interest rates within a single repayment interval due to changes

in the interest definition between due dates. In such cases, Loan Management keeps the interest accrued up until the change occurs and rebuilds the remaining of the repayment schedule.

### NOTE

Depending on the contract interest rates, Loan Management calculates the **accrual** in the following ways:

- If there are multiple interest rates during an installment period, then, for each rate, a daily interest percent is calculated for the corresponding interest percent and the contract's remaining value
- If only one interest rate during an installment period, the daily interest is calculated using the Next Due Date schedule interest from the repayment schedule.

For the last day of the period, Loan Management performs an adjustment to meet the repayment schedule's Next Due Date interest.

To customize the information specific to each of the contract's **penalty interest rates**:

1. In the **Contract Penalty Interest Rate** section, edit the existing information that was automatically completed based on your product interest rate selections:

Contract Penalty Interest Rate

<input type="checkbox"/>	Name	Start Date	End Date	From Installment	To Installment	Fixed Rate	Margin	Total Interest Rate	Operation Item	Reference Rate
	BNPL-6X Penal...	2022/12/16	2023/11/11	1	11	24.0000	0.0000	24.0000	Loan Principal	0.0000

- **Interest Name** - Automatically completed with the penalty interests selected in the previous **Product Interest Rate** section. Only the penalty interests associated to the selected banking product are displayed within the list.
- **Start Date** and **End Date** - The penalty interest's start and end dates, automatically completed with the contract's activation, respectively maturity date.
- **From Installment** - The first installment for which this penalty interest is applied to the contract.



- **To Installment** - The last installment for which this penalty interest is applied to the contract.
  - **Fixed Rate** - The fixed rate of the penalty interest. You can only change it if the interest at the banking product level was marked as **Is Negotiable**.
  - **Margin** - This cell is automatically completed with the margin of the previously selected product interest. You can only change it if the interest at the banking product level was defined as variable and marked as **Is Negotiable**.
  - **Total Interest Rate** - This read-only cell is automatically completed with the calculated total penalty interest rate as **Fixed Rate** or **Margin + Reference Rate**.
  - **Operation Item** - The contract's operation item to which the penalty interest is applied.
  - **Reference Rate** - This read-only cell is automatically completed with the interest type's definition's reference rate valid at the previously selected date.
2. After performing the desired changes, make sure that the penalty interest rate(s) cover the full contract period, from activation date until maturity date, and there are no overlapping intervals, otherwise an error prevents you from approving the contract.
  3. Click the **Save and Reload** button.

Later, after contract approval, you can change the penalty interest rate by versioning the contract and editing the information in this section. Thus, the new penalty rate becomes effective after approving the contract version, only impacting future calculations and notifications.

**NOTE** Loan Management notifies the applicable penalty interest on a daily basis. The penalty calculation process uses the penalty interests values from the contract level.

## 6. Amend Closure Settings

If allowed from the product service configuration definition, you can amend the closure settings of the contract, the way Loan Management should behave once the loan is repaid and the contract can be closed. Most of the times this is not something that you have to access, but it adds extra flexibility at the contract level. This may prove useful if you suspect there may be reasons to keep a contract open for some time post recovering all amounts for instances when there may appear claims of funds (SEPA DD) or other similar cases.

The **Closure Settings** section is only displayed for contracts based on banking products with product service configurations having the **Closing Is Flexible = True** setting.

Closure Settings

Automatic Closure <input checked="" type="checkbox"/>	Real Time Closure <input checked="" type="checkbox"/>	Buffer Close Days <input type="text" value="0"/>	Balance Off Date <input type="text" value=""/>	Closure Date <input type="text" value=""/>
--	--	---	---	---

To amend the closure settings brought from product service configuration level here at the contract level:

1. Fill in or modify the following fields:
  - **Automatic Closure** – If selected, Loan Management automatically closes the contract once all other conditions are met. This field is automatically completed with the value defined at the product service configuration level, but you can modify it.
    - Select this checkbox to instruct Loan Management to close the contract automatically when the available amount becomes zero and there are no further amounts to be recovered, and after the number of days set as buffer before closure pass and **Closure Date = Current Date**.
    - Deselect it to instruct Loan Management to keep the contract open, regardless of the fulfillment of its maturity and balance criteria, waiting to be manually closed by changing its status to **Closed**.

**NOTE**

Revolving loans are closed only after maturity. In this case, the available loan amount is considered as balance.

You can perform contracts events as specified in the **Allowed Transactions** section of the banking product's service configuration, plus manual closure while the contract is pending closure. Performing any other transactions displays an error message.

- **Real Time Closure** – If you select this checkbox, when the amounts become zero and the loan is not a revolving one, the contract is closed automatically. If `Real Time Closure = True`, then `Buffer Close Days = 0` and `Automatic Closure = True`. For more details about the real-time closure, see [Close Contracts RealTime\(CB\) Job](#).
- **Buffer Close Days** - Enter the number of days used as buffer before automatically closing the contract. If `Buffer Close Days > 0`, then `Real Time Closure = False`. Loan Management waits the entered number of days after the contract's balances reach zero, and at the end of that day the contract is closed.
- **Balance Off Date** – This is a system maintained field and it is populated with the date on top of which Loan Management adds the Buffer Close Days to arrive to the Closure Date.
- **Closure Date** – This is a system maintained field and holds the date when the contract is closed. For automatic closure, the date is calculated by Loan Management as `Balance Off Date + Buffer Close Days`.

2. Click the **Save and Reload** button.

## 7. Check Other Details Pre-Filled Based on Product Definition

Once you defined the mandatory details, then saved and reloaded the contract, Loan Management updates some of the next sections on the page, based on product definitions:

**Contract Participants**

+ Insert
X Delete
Export
Refresh

<input type="checkbox"/>	Participant	Role	Status	Blocking Reason	Block Role Date	Block Disbursement
	Q	Q	Q	Q	Q	(All) ▾
	Jane	Beneficiary	Active			▮
	Jane	Borrower	Active			▮

**Contract Tranches**

+ Insert
X Delete
Export
Refresh

Tranche Date	Tranche Percent	Amount	Usage Commission Per...	Interest Percent	Status	Disbursement Event
Q	Q	Q	Q	Q	Q	Q
No data						

**Fees & Commissions**

+ Insert
X Delete
Export
Refresh

<input type="checkbox"/>	Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
	Commission Applied To Amount	EUR	18/08/2022	10.0000	0.00	Monthly
	CA Administration Fee	EUR	18/08/2022		4.00	Monthly
	Management Fee EUR Monthly	EUR	18/08/2022		10.00	Monthly
	Corporate Loan Term Front-End Fee EUR	EUR	18/08/2022	4.0000	200.00	Once

**Contracts Covenant**

+ Insert
X Delete
Export
Refresh

Type	Covenant	Review Date	End Date	Resolution	Block Disburseme...	Status
Q	Q	Q	Q	Q	(All)	▾ Q
No data						

**Contract Classifications**

+ Insert
X Delete
Export
Refresh

Contract	Code	Name	Classification Type	Valid From	Valid To
----------	------	------	---------------------	------------	----------

Loan Management brings the **Contract Participants**, the Borrower being also Beneficiary of the funds and the Customer who is granted the loan. If needed, you can [add other participants](#) to the contract, like Guarantors, Co-Debtors, etc. There may be cases when some roles are mandatory for a product. Those are detailed in a [separate section](#). If there is a mandatory role defined in the banking product's service configuration, Loan Management displays an error on trying to approve the contract.

**Contract Tranches** is a section where you can [implement progressive access to the funds](#). This is valuable in case of loans granted for investment projects where you can know upfront that there is a plan for the project and payments need to happen for each stage of the project, those stages being known from the start.

Another important section brought from the product definition is the **Fees & Commissions**. Depending on the system setup, you are allowed or not to [amend fees and commissions](#) in this section.

**Contract Covenants** section displays the covenants that applicants must abide by after getting the loan, configured at the product level. Such conventions are usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements and not only: submit balance sheet every x months, have account turnover of at least x percent from average monthly turnover, provide other relevant documents from authorities. In this section, you can [manage covenants](#) for the contract. These covenants would need to be monitored procedurally; Loan Management doesn't have the logic in place to implement automated processes.

You can use the **Contract Classifications** section to capture various [classifications](#) that might be relevant for the financial institution for that loan at a moment in time. It is a placeholder for such details and there is no automated logic in place to update them. In implementation this can be used for other developments if required.

After defining the relevant details of the contract, proceed to [contract approval](#).

## Creating A New Secured Loan

Secured loans are business or personal loans that require some type of collateral as a condition of borrowing. A financial institution can request collateral for large loans for which the funds are used to purchase a specific asset or in cases where the customer's credit scores aren't sufficient to qualify for an unsecured loan.

Before creating a secured term loan contract, make sure that:

- the customer is recorded in Loan Management,
- a settlement account (a current account contract for the same customer) is set up for the desired currency,
- the collateral is registered in Loan Management,
- and the limits are configured according to Loan Management's setup.

To create a new secured loan contract:

## 1. Follow the Same Steps as for Creating an Unsecured Loan Contract

The process of creating an secured loan contract is similar to that of [creating an unsecured loan contract](#). The difference is that you must choose a banking product that is **secured** when creating the contract.

After performing the steps described in the ["Creating A New Unsecured Loan"](#) on page 265 page, perform the actions required to [link collaterals to the contract](#).

## 2. Link Collaterals to the Loan

You can set collaterals as guarantees for secured loan contracts in the **Collaterals** tab. This tab is displayed only for contracts based on **secured** products.

1 Overview

2 Collaterals

3 Payments

4 Contracts & Documents

5 History

6 Accounting Entries

Cover Value
500

Product Collateral Cover Percent
100

Contract Guarantors

+ Insert
X Delete

Contract	Guarantor
5797	Littel and Sons

Contract Collateral

+ Insert
X Delete

Status	Collateral Type	Currency	Collateral Register Value	CoverPercent	Cover Value in Contract Cur...	Last Evaluation Date
Active	Cash	EUR	500.00	100.00	500.00	

The fields **Cover Value** and **Product Collateral Cover Percent** are automatically populated from product level.

## NOTE

You can send a contract for approval only if  $\text{Cover Value} = \text{Financed Amount} * \text{Product Collateral Cover Percent} / 100$ .

You can use collaterals not owned by the customer, but by a guarantor to cover the contract risk. To add guarantors to the contract, follow these steps:

1. Click the **Insert** button within the **Contract Guarantor** section.
2. In the newly displayed **Add Contract Guarantors** page, fill in the **Guarantor** field by selecting the customer who acts as a guarantor for the contract.

### ADD CONTRACT GUARANTORS

#### Contract Guarantors

Contract

5797

Guarantor

...

3. Click the **Save and Close** button.

To link a collateral to the contract, follow these steps:

1. Click the **Insert** button from the **Contract Collateral** section.
2. In the newly displayed **Add Contract Collateral** page, fill in or modify the following fields:

- **Customer / Guarantor** - Select the customer who acts as guarantor for the contract. The field is automatically completed with the customer selected in the contract, but you can select any of the customers already added as guarantors for this contract.
- **Collateral Register** - Select a collateral registered to the current customer. When selecting a collateral, the Cover Register Value, Cover Register Value Usage and Cover Value in Contract Currency fields are automatically calculated.

### NOTE

Make sure that the collateral you are planning to use for the secured loan contract is previously [registered](#), otherwise you can't use it for covering the contract.

You can link a registered collateral to multiple contracts if the contracts total amount does not exceed the collateral available amount.

When selecting a **Fixed deposit** collateral, the status of the associated bank account becomes **Blocked**.  
If the contract's status changes from **Owned** or **Active** into **Released**, the status of the bank account becomes **Opened**.



- **Collateral Register Value Usage (%)** - Edit the percentage to be used from the registered collateral's total value. It was set at banking product level, in the Collateral Cover Percent field. As a result, the Collateral Register Value and the Cover Value in Contract Currency values are automatically recalculated by Loan Management.
- **Cover Register Value** - The value is taken from collateral, expressed in the collateral's currency. If the collateral is in a different currency than the contract currency, the exchange rate is automatically applied in order to have the available amount correctly calculated. Further, a job runs daily in order to recalculate the available amount for each collateral.
- **Cover Value in Contract Currency** - This is the cover value converted in the contract's currency at the exchange rate defined in Loan Management.
- **Mortgage File** - Attach a file relevant for the mortgage.

3. Click the **Save and close** button.

4. Change the status of the collateral to **Secured** before approving the contract, otherwise Loan Management triggers an error.

Contract Collateral

<input type="checkbox"/>	Status	Collateral Type	Currency	Collateral Register Value	CoverPercent	Cover Value in Contract Cur...	Last Evaluation Date
<input checked="" type="checkbox"/>	Secured	Cash	EUR	500.00	100.00	500.00	
<input type="checkbox"/>	Active	Cash	EUR		100.00	9,500.00	

Contract cannot be approved! Not all collaterals are secured!

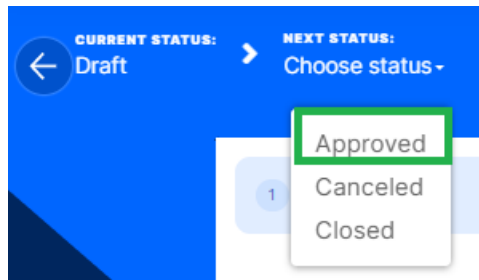
After defining the relevant details of the contract, proceed to **contract approval**.

## Approving a Loan

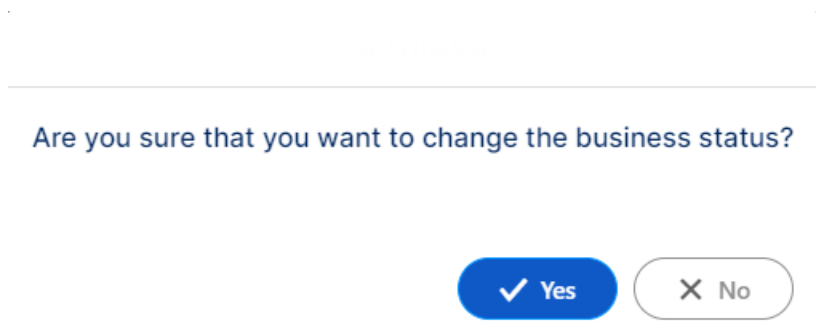
You can perform the approval either from a customer journey flow via API integration or from the Loan Management user interface.

After defining the relevant details of the contract, proceed to contract approval:

1. Select a contract in **Draft** (or **Version Draft**) status.
2. Change its status into **Approved**.



3. Click **Yes** to confirm your action.



If Loan Management performs all the validations successfully, then the current status of the contract changes to **Approved**.

A screenshot of a contract details page. At the top, a blue header bar contains the following information: 'CURRENT STATUS: Approved' (highlighted with a green box), 'NEXT STATUS: Closed', 'CONTRACT NUMBER: 11037', 'ACTIVATION DATE: 18/08/2022', 'CREATED BY: [redacted]', 'VERSION: 1', 'VERSION DATE: 22/07/2022 03:00', and 'CONTRACT CATEGORY: Normal'. Below the header is a navigation bar with five tabs: '1 Overview' (selected), '2 Payments', '3 Contracts & Documents', '4 History', and '5 Accounting Entries'. The main content area is titled 'General Data' and contains various fields for contract information, including Contract ID, Customer, Banking Product, Currency, Activation Date, Main Bank Account, Current Account, Destination Bank Account, Amount, Advance Amount Percentage, Advance Amount Value, Available Amount, Start Calculation Date For Amount Unused, Maximum Disburse Date, Managing Branch, Auto disbursement (checked), Direct Debit Settlement Account (checked), and Sales Channel (Assisted Contract).

Example of error displayed by Loan Management if the validations are not met

If you try to approve a contract for the value of 12000, but the maximum amount allowed at the product level is only 10000, then Loan Management triggers an error because this value is beyond the product setup.

The screenshot shows the 'General Data' section of a loan contract form. The 'Amount' field is set to 12,000. A red error message box is displayed in the center, stating: 'Financed amount cannot be greater than the maximum amount defined at the banking product level (10000)!'.

Field	Value
Contract ID	
Customer	Jane
Banking Product	Retail Term Loan
Currency	EUR
Activation Date	01/06/2022
Main Bank Account	
Current Account	FIN00000589
Destination Bank Account	
Amount	12,000
Advance Amount Percentage	0
Advance Amount Value	0
Start Calculation Date For Amount Unused	01/06/2022
Maximum Disburse Date	01/07/2022
Managing Branch	root
Auto disbursement	✓

**Product Interest Rate**

Field	Value
Product Interest	F&S
Total Interest Rate	
Minimum Interest Rate	

Similarly, Loan Management triggers errors if there are specific limits imposed from product level regarding minimum and maximum term, advance or amount itself. Below is how those limits are captured on product definition.

The screenshot shows the 'Product Availability' section of a loan product definition form. It displays various limits for the product.

Field	Value
Minimum Amount	1,000
Maximum Amount	10,000
Minimum Period	1
Maximum Period	12
Minimum Advance	
Maximum Advance	
Start Period For Usage After Activation (Months)	
Maximum Period Disburse After Activation (Months)	1
Minimum Principal For Early Repayment	

**Availability Rules**

## Automated Actions After Contract Approval

The **Main Bank Account** is created automatically for the bank defined as Main within the **Loan Management Operational > Bank** menu. In order for Loan Management to generate an account number, a rule must be defined during the implementation phase (example: branch code + incremental sequence number).

On the **Payments** tab you can see the repayment schedule that was generated following the disbursement (the auto disbursement functionality was selected), the disbursement transaction itself, the notification that was created for the flat upfront fee. Not only it got created but it is also settled from funds on the Current Account selected for settlement purposes, the same where funds were disbursed.

1 Overview 2 **Payments** 3 Contracts & Documents 4 History 5 Accounting Entries

#### Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
11037	18/08/2022	18/08/2022 12:30

#### Contract Repayment Schedule versions

VersionNo	Versioning Reason	VersionDate	Date Schedule
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
No data			

#### Transactions

+ Insert

<input type="checkbox"/> Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
ECB9952	Disbursement	Approved	18/06/2022	5,000.00	mirelaR

#### Repayment Notifications

+ Insert

Refresh

<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
68845	Billy	22/07/2022	EUR	550.00	0.00	22/07/2022	Recovered

#### Penalties

Export

Refresh

PenaltyDate	PenaltyAmount	Payed	NotificationNo
<input type="text"/>	<input type="text"/>	(All)	<input type="text"/>

**NOTE** The tab **Payments** has no information to display while the contract is in the **Draft** status. You must approve the contract to perform any contract event. Meaningful payment information is displayed in this tab only after performing transactions on the contract.

The **Contract Repayment Schedule** shows the equal installments, on top of which the Administration fee is added on contracts where applied.

Contract Repayment Schedule

Date Schedule

18/08/2022

Print Schedule

Contract

11037

Customer

Billy

Schedule File

## Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif.No.
1	15-09-2022	5,000.00	15.00	77.05	10.00	102.05	0.00	
2	15-10-2022	4,922.95	16.41	75.64	10.00	102.05	0.00	
3	15-11-2022	4,847.31	16.16	75.89	10.00	102.05	0.00	
4	15-12-2022	4,771.42	15.90	76.15	10.00	102.05	0.00	
5	15-01-2023	4,695.27	15.65	76.40	10.00	102.05	0.00	
6	15-02-2023	4,618.87	15.40	76.65	10.00	102.05	0.00	
7	15-03-2023	4,542.22	15.14	76.91	10.00	102.05	0.00	

The **Disbursement** transaction includes the repayments schedule that was generated with that disbursement.

Disbursement

General Data

Go to contract

Contract Data

Go to customer

Event Date

18/08/2022

Event Value

5,000

External Identifier

Financed Amount

5,000

Available Amount

0

Installment Method

Next Period

Disbursement Results

Installment Value

92.05

Repayment Day

15

Tenor

60

Repayment Schedule

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR
1	15-09-2022	5,000.00	15.00	77.05	10.00	102.05	0.00
2	15-10-2022	4,922.95	16.41	75.64	10.00	102.05	0.00
3	15-11-2022	4,847.31	16.16	75.89	10.00	102.05	0.00
4	15-12-2022	4,771.42	15.90	76.15	10.00	102.05	0.00
5	15-01-2023	4,695.27	15.65	76.40	10.00	102.05	0.00

The **Repayment Notification** shows what was made due, when, how much, what type of amount and when/if amounts were recovered.

## Manual Repayment Notification

Customer Billy	Currency EUR	Contract 11037	Source BankAccount	Total Amount 550
Notification Date 22/07/2022	Maturity Date 22/07/2022	Repayment Description		

## Repayment Notification Details

Export Refresh

<input type="checkbox"/> Operation Item	Value	RemainingValue	Is Paid
Q	Q	(All)	Q
Front-end Fee	200.00	0.00	<input checked="" type="checkbox"/>
Front-end Fee	350.00	0.00	<input checked="" type="checkbox"/>

## Payment Allocations

<input type="checkbox"/> Payment No.	Payment Date	Operation Item	Allocated Amount	DueDate	Delay (days)
\$26703	18/08/2022	Front-end Fee	200.00	22/07/2022	27
\$26703	18/08/2022	Front-end Fee	350.00	22/07/2022	27

## Repayment Notification Penalties

Export Refresh

Penalized Item	Penalty Date	Penalty Notification	Overdue Days	Penalty Amount	Is Paid	Description
Q	Q	Q	Q	Q	(All)	Q
No data						

## Corrections

+ Insert Export Refresh

You can also check the **Current Account** transaction. On the contract's **Overview** tab, click on the pencil next to the **Current Account**:

## Current Account

FIN000000589

In the displayed window, filter by your contract number and get the amounts posted to the account following our contract processing.

EDIT BANK ACCOUNT

<b>Bank</b> FintechOS Bank	<b>Customer</b> Billy
<b>Currency</b> EUR	<b>Account Type</b> Current Account
<b>Bank Account Number</b> FIN000006266	<b>IBAN</b> 
<b>Overdraft Limit Amount</b> 	<b>Balance</b> 152,639.5

Bank Account Operations

Export

Refresh

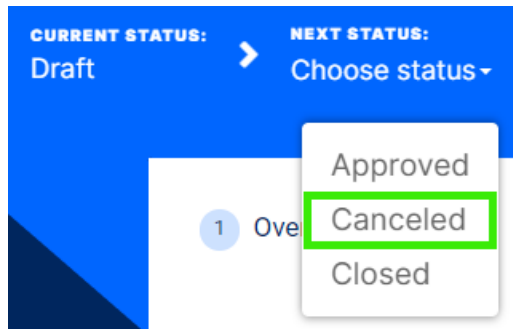
<input type="checkbox"/>	Account operation type	Value date	Operation date	Amount	Detail text
	Q	Q	Q	Q	Q 11037
	Credit Bank Account	18/08/2022 12:30	18/08/2022 12:30	5,000.00	Disburse 11037
	Debit Bank Account	18/08/2022 12:30	18/08/2022 12:30	550.00	11037

Rejecting a Loan

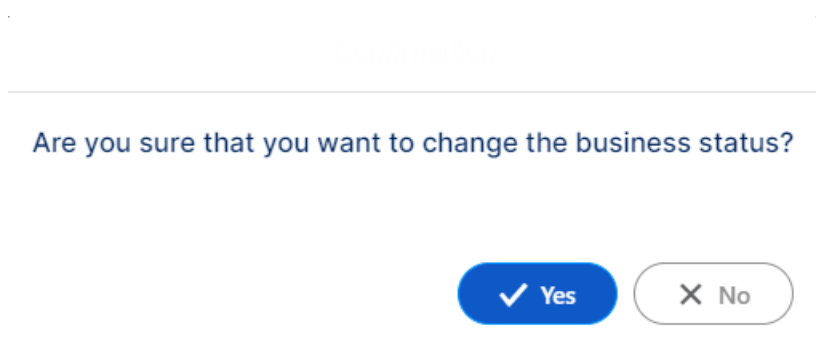
You can reject a loan, canceling it, when the deal with the customer drops. You can perform the cancellation either from a customer journey flow via API integration or from the Loan Management user interface.

Follow these steps to cancel the contract:

1. Select a contract in **Draft** (or **Version Draft**) status.
2. Change its status into **Canceled**.



3. Click **Yes** to confirm your action.



If Loan Management performs all the validations successfully, then the current status of the contract changes to **Canceled**.

A screenshot of a contract details page. At the top, a blue header bar shows 'CURRENT STATUS: Canceled' (highlighted with a green box). To the right of this, contract details are listed: CONTRACT NUMBER 5797, ACTIVATION DATE 28/08/2022, CREATED BY [redacted], VERSION 1, VERSION DATE 14/03/2022 02:00, and CONTRACT CATEGORY Normal. Below the header is a navigation bar with tabs: 1 Overview (selected), 2 Collaterals, 3 Payments, 4 Contracts & Documents, 5 History, and 6 Accounting Entries. The main content area is titled 'General Data' and contains several input fields and dropdown menus for contract information, including Contract ID, Activation Date, Amount, Start Calculation Date, Auto disbursement, Customer, Main Bank Account, Advance Amount Percentage, Maximum Disburse Date, Direct Debit Settlement Account, Banking Product, Current Account, Advance Amount Value, Sales Channel, Currency, Destination Bank Account, Managing Branch, Product Interest Rate, Interest Commission Item, Product Interest, and Date for Review Interest Rate.



**NOTE** You can't further use a canceled contract. Create a new contract, if you need to.

## Disbursing a Loan

A disbursement represents the actual delivery of funds from a bank account to the customer. The repayment schedule of the loan contract is automatically calculated or recalculated as a result of performing a disbursement.

In Loan Management, you can choose between a disbursement performed automatically when the contract gets approved, or manually triggering the disbursement by performing a disbursement transaction, for cases when you need a request for disbursement from the customer, or other details are pending before you can release the funds, such as registering the collaterals with a certain authority.

## Automatic Disbursement at Contract Approval

You can instruct Loan Management to automatically perform the disbursement of funds for a loan contract during contract creation, if the auto disbursement property was set at [banking product level](#). To do this, select the **Auto disbursement** checkbox in the contract's **Overview** tab, thus marking the financed amount to be automatically disbursed on the approval of the contract.

The screenshot displays the 'Overview' tab of a loan contract in a system. At the top, a blue header bar contains the 'CURRENT STATUS: Approved' and 'NEXT STATUS: Closed'. Below this, a table lists contract details: CONTRACT NUMBER (12742), ACTIVATION DATE (30/08/2022), CREATED BY (redacted), VERSION (1), VERSION DATE (01/09/2022 03:00), and CONTRACT CATEGORY (Normal). A navigation bar below the header shows five tabs: 1 Overview (selected), 2 Payments, 3 Contracts & Documents, 4 History, and 5 Accounting Entries. The main content area is titled 'General Data' and contains several input fields and checkboxes. The 'Auto disbursement' checkbox is checked and highlighted with a green box. Other fields include Contract ID, Customer, Banking Product (BNPL SLICE), Currency (RON), Activation Date (30/08/2022), Main Bank Account, Current Account, Destination Bank Account, Amount (4,000), Advance Amount Percentage (8.33), Advance Amount Value (333.2), Available Amount (0), Start Calculation Date For Amount Unused (30/08/2022), Maximum Disburse Date (25/07/2023), Managing Branch (root), Direct Debit Settlement Account (checked), and Sales Channel (Assisted Contract).

If selected, Loan Management performs the disbursement transaction immediately after contract approval, and the funds are moved to the settlement account or destination account as per instructions. The contract repayment schedule is also calculated:

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12742	30/08/2022	01/09/2022 17:34

Contract Repayment Schedule versions

VersionNo	Versioning Reason	VersionDate	Date Schedule
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
No data			

Transactions

<input type="checkbox"/> Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
ECB10065	Disbursement	Approved	30/08/2022	4,000.00	

You can see the disbursement transaction's details and the calculated repayment schedule by double-clicking the transaction.

Current Status: Approved

CUSTOMER

CONTRACT NUMBER  
12742

TRANSACTION NUMBER  
ECB10065

TRANSACTION TYPE  
Disbursement

CURRENCY  
RON

Disbursement

General Data

Go to contract

Contract Data

Go to customer

Event Date  
30/08/2022

Event Value  
4,000

External Identifier

Financed Amount  
4,000

Available Amount  
0

Installment Method  
Next Period

Disbursement Results

Installment Value  
360.43

Repayment Day  
29

Tenor  
11

Repayment Schedule

	No.	Due Date	Reamining Value	Interest	Principal	ManagementFee	TotalInstallment
	0	30-08-2022	4,000.00	0.00	333.20	0.00	333.20
	1	29-09-2022	3,666.80	48.86	311.57	5.00	365.43
	2	29-10-2022	3,355.23	44.71	315.72	5.00	365.43
	3	28-11-2022	3,039.51	40.50	319.93	5.00	365.43
	4	28-12-2022	2,719.58	36.24	324.19	5.00	365.43
	5	27-01-2023	2,395.39	31.92	328.51	5.00	365.43
	6	26-02-2023	2,066.88	27.54	332.89	5.00	365.43
	7	28-03-2023	1,733.99	23.11	337.32	5.00	365.43
	8	27-04-2023	1,396.67	18.61	341.82	5.00	365.43
	9	27-05-2023	1,054.85	14.06	346.37	5.00	365.43
	10	26-06-2023	708.48	9.44	350.99	5.00	365.43
	11	26-07-2023	357.49	4.76	357.49	5.00	367.25

## Adding a Disbursement Transaction To an Approved Contract

You can add disbursement transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a disbursement transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

The screenshot shows a form titled "Contract Event". It contains five input fields with dropdown arrows: "Contract" (value: 12717), "Customer" (value: BZT5), "Currency" (value: EUR), "Event Date" (value: 02/09/2022), and "Transaction Type" (value: Disbursement). The "Event Date" field has a calendar icon on the right.

3. Fill in the following fields:

- **Event Date** - This is pre-filled with current date.
- **Transaction Type** - Select from the list the **Disbursement** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.

The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. A series of value fields are automatically calculated, their values are displayed, and you can't edit them: the contract's financed and available amounts, the selected installment calculation method, the repayment day and the contract's tenor.

The screenshot shows the "Edit Contract Event" page for a "Disbursement" transaction. At the top, there's a header bar with "CURRENT STATUS: Draft" and "NEXT STATUS: Choose status-". Below this, a navigation bar shows "CUSTOMER: BZT5", "CONTRACT NUMBER: 12717", "TRANSACTION NUMBER: ECB10067", "TRANSACTION TYPE: Disbursement", and "CURRENCY: EUR". The main content area is titled "Disbursement" and has two tabs: "General Data" (active) and "Contract Data". Under "General Data", there are fields for "Event Date" (02/09/2022), "Event Value" (empty), "External Identifier" (empty), "Financed Amount" (10,000), "Available Amount" (10,000), and "Installment Method" (Next Period). There are also buttons "Go to contract" and "Go to customer". Under "Contract Data", there are fields for "Repayment Day" (29) and "Tenor" (empty). At the bottom, there's a checkbox for "Import Schedule" which is currently unchecked.

5. Fill in the **Event Value** with the value of the transaction, and enter an **external identifier** of the transaction, if available.
6. Decide whether you want to use the repayment schedule calculated by Loan Management through automatic processes, or you want to import a custom schedule. For custom schedule, select the **Import Schedule**

checkbox. Read more about importing a custom schedule file in the [Manually Upload Repayment Schedules](#) section of the user guide.

7. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
8. Click the **Calculate repayment schedule** button to view the details of each installment of the calculated repayment schedule.

Disbursement

General Data

Go to contract

Contract Data

Go to customer

Event Date

Event Value

External Identifier

Financed Amount

Available Amount

Installment Method

02/09/2022

5,000

10,000

10,000

Next Period

Disbursement Results

Repayment Day

Tenor

29

12

Import Schedule

☐

Calculate repayment schedule

Repayment Schedule

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR
1	29-10-2022	5,000.00	59.37	376.64	10.00	446.01	0.00
2	29-11-2022	4,623.36	28.90	407.11	10.00	446.01	0.00
3	29-12-2022	4,216.25	26.35	409.66	10.00	446.01	0.00
4	29-01-2023	3,806.59	23.79	412.22	10.00	446.01	0.00
5	28-02-2023	3,394.37	21.21	414.80	10.00	446.01	0.00
6	29-03-2023	2,979.57	18.62	417.39	10.00	446.01	0.00
7	29-04-2023	2,562.18	16.01	420.00	10.00	446.01	0.00
8	29-05-2023	2,142.18	13.39	422.62	10.00	446.01	0.00
9	29-06-2023	1,719.56	10.75	425.26	10.00	446.01	0.00
10	29-07-2023	1,294.30	8.09	427.92	10.00	446.01	0.00
11	29-08-2023	866.38	5.41	430.60	10.00	446.01	0.00
12	29-08-2023	435.78	0.00	435.78	10.00	445.78	0.00

9. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

**IMPORTANT!** A Disbursement event can't be approved if the current system date > the minimum between Maximum Disburse Date and Maturity Date-1.

10. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management transfers the funds to the configured settlement account.

The event value is now applied and visible in the contract's **Payments** tab -> **Transactions** section.

#### Transactions

+ Insert						
<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10067	Disbursement	Approved	02/09/2022	5,000.00	

#### NOTE

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Processing Loan Repayments

Based on defined product pricing and established parameters, financial institutions can manage the billing and collection process on a loan contract fully automatically. Once the disbursement is performed, Loan Management generates the repayment

schedule and sends the payment notifications to the customer on the due date. Automated collection is triggered via integration with 3rd party payments engine or from the customer's settlement account. If funds are not available, overdue amounts and days are calculated and penalties applied.

Once a loan approved and disbursed, you can check the repayment schedule built based on contract details, on the **Payments** tab, in the designated section, as described in the [Viewing a Contract's Repayment Schedule](#) topic. If there are front-end fees, they are notified automatically by Loan Management and you can check them on the **Payments** tab, in the **Repayment Notifications** section (even without disbursing the funds). Read about repayment notifications in the [Managing Repayment Notifications](#) topic.

When the system reaches the dates that appear on schedule projections, the amounts resulting are made due, and Loan Management automatically triggers the notifications. Depending on the availability of funds in the settlement account and the [direct debit setup](#), Loan Management settles those notifications, marking them with the **Recovered status**. Any amount that is not recovered on due date stays on the notification, and when funds become available, Loan Management automatically recovers and allocates them to the pending notifications based on the **Payment Allocation Method** setup at the product service configuration level. When the notifications are recovered, you can see the underlying debit transactions on the settlement account – there is always such traceability of the funds. You can also see the automatic payments performed by Loan Management either at contract level or in a dedicated menu, as described in the [Viewing Customer Payments](#) topic.

[Payment Schedule Types](#), defined at the Product Factory level, define how Loan Management handles the following:

- How the interest is calculated (day basis: 30/360, actual/ 360, etc).
- If the capital repayment is linear or annuity type (same principal for every installment or increasing principal and decreasing interest resulting in a constant amount being due for every installment).
- Fees you want to include in the repayment schedule.
- If you allow for manual installment amount to be provided and overwrite automatically calculated one.
- Frequency of the installment (monthly, every 30 days, etc).

When amounts are not available to cover notified amounts and there is a penalty interest defined for the product, the missed amounts are subject to automatic penalty calculation. Loan Management calculates and notifies the penalty interest daily. All the penalties applied by automated processes at the contract level are visible on the **Payments** tab, in the **Penalties** section, as described in the [Viewing a Contract's Penalties](#) topic. When the penalty interest is defined, there are specific [Operation Items](#) linked to it so that the system knows what types of amounts are subject to penalty: overdue principal, interest, commissions. Alternatively, the penalty interest can be applied to all missed payments. Penalty interest is defaulted from the product level and, if allowed, it can also be amended at contract level.

Is Penalty	Is General	Applied To Loan Item (If Overdue)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<div>Loan Principal</div>

You can find all the existing [transactions](#), payments, penalties, bank account operations, repayment schedules, schedule versions, repayment notifications for a contract on the **Payments** tab. The tab has no information to display for contracts in **Draft** status. Approve the contract to perform any transactions on the contract. Meaningful payment information is displayed here only after [performing a disbursement](#).



1 Overview	2 Payments	3 Contracts & Documents	4 History	5 Accounting Entries
------------	------------	-------------------------	-----------	----------------------

Contract Repayment Schedule		
<input type="checkbox"/> Contract	Date Schedule	Modified On
8588	21/06/2022	21/06/2022 14:43

Contract Repayment Schedule versions			
<input type="checkbox"/> VersionNo	Versioning Reason	VersionDate	Date Schedule
Q	Q	Q	Q
1	Reschedule Overdues	21/06/2022	21/06/2022

Transactions						
+ Insert						
<input type="checkbox"/> Name	Transaction Type	Business Status	Event Date	Event Value	Created by user	
ECB6670	Disbursement	Approved	21/06/2022	1,000.00	apicaler01	
ECB6672	Reschedule Overdues	Approved	21/06/2022	135.61	apicaler01	

Repayment Notifications								
+ Insert   Refresh								
<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status	
Q	Q	Q	Q	Q	Q	Q	Q	
S3472	Herman Schmitt	21/10/2022	EUR	98.25	98.25	21/10/2022	Processed	
S3091	Herman Schmitt	21/09/2022	EUR	98.25	98.25	21/09/2022	Processed	
S3090	Herman Schmitt	21/08/2022	EUR	98.25	98.25	21/08/2022	Processed	
S3016	Herman Schmitt	21/07/2022	EUR	185.61	0.00	21/07/2022	Processed	
S3015	Herman Schmitt	21/06/2022	EUR	500.00	0.00	21/06/2022	Recovered	
automat	Herman Schmitt	21/06/2022	EUR	200.00	200.00	21/06/2022	Draft	

Penalties			
Export   Refresh			
PenaltyDate	PenaltyAmount	Payed	NotificationNo

## Managing a Contract's Transactions

Contract transactions are events/ changes performed at the **Approved** contract's level. Such events are [disbursements](#), [reschedule overdues](#), [early repayments](#), [applying payment holidays](#), [returning of amounts](#), and so on. Read more information about the available transaction types in the ["Transaction Types Used in Loan Management" on page 89](#) topic.

The **Transactions** section within the **Payments** tab holds all the transactions performed at the contract level, in any status. This section only has information if the contract is in **Approved** status and transactions were already created.

Contract Collateral

Credit Facility

Credit Facility Usage

Transactions

Transactions

10339

Expand view

Export

Search...

Transaction...	Transaction Ty...	Contract No	Value	Currency	Event Date	User
ECB20641	Disbursement	26521	10000	EUR	10/13/2023	
ECB20639	Disbursement	26518	50000	EUR	10/13/2023	
ECB20638	Disbursement	26515	5000	EUR	10/13/2023	
ECB20637	Disbursement	26503	5000	EUR	10/13/2023	
ECB20636	Disbursement	26513	10000	EUR	10/13/2023	

5

10

1

2

3

4

5

...

2068

## Event Statuses

An event record has the following statuses, visible in the top left corner of any **Event** page:

- **Draft** - the status of a newly created event record that was not yet sent for approval. The event value is not applied to the contract while the event is still in this status. While in this status, you can edit some fields. Approve after editing all the necessary details.
- **Approved** - the status of an event record after being authorized. The event value is applied to the contract and you cannot edit any of the event's details. There is no further transition from this status.
- **Canceled** - the status of an event record after being canceled. The event value is not applied to the contract and you cannot

edit any of the event's details. There is no further transition from this status.

### NOTE

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Viewing Existing Events

To view the events on a contract, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and view the list of events displayed in the **Transactions** section.

<
Contract Collateral
Credit Facility
Credit Facility Usage
Transactions
>

Transactions
10339
Expand view
Export

Search...

Transactio...	Transaction Ty...	Contract No	Value	Currency	Event Date	User
ECB20641	Disbursement	26521	10000	EUR	10/13/2023	
ECB20639	Disbursement	26518	50000	EUR	10/13/2023	
ECB20638	Disbursement	26515	5000	EUR	10/13/2023	
ECB20637	Disbursement	26503	5000	EUR	10/13/2023	
ECB20636	Disbursement	26513	10000	EUR	10/13/2023	

5
10
1
2
3
4
5
...
2068

Here you can see only basic information about the transactions, such as event number, status, date, transaction type, value and the user who created it.

3. To view detailed information about the transaction and the repayment schedule generated for the **Approved** event, double-click the event record to open the **Event** page:

CURRENT STATUS

Approved

CUSTOMER

CONTRACT NUMBER

12597

TRANSACTION NUMBER

ECB9953

TRANSACTION TYPE

Disbursement

CURRENCY

EUR

Disbursement

General Data

Go to contract

Contract Data

Go to customer

Event Date

18/08/2022

Event Value

12,000

External Identifier

Financed Amount

12,000

Available Amount

0

Installment Method

Next Period

Disbursement Results

Installment Value

1,080.57

Repayment Day

18

Tenor

11

Repayment Schedule

	No.	Due Date	RemainingValue	Interest	Principal	TotalInstallment
	0	18-08-2022	12,000.00	0.00	1,000.00	1,000.00
	1	18-09-2022	11,000.00	144.57	936.00	1,080.57
	2	18-10-2022	10,064.00	132.27	940.30	1,080.57
	3	18-11-2022	9,115.70	119.80	960.77	1,080.57
	4	18-12-2022	8,154.93	107.18	973.39	1,080.57
	5	18-01-2023	7,181.54	94.38	986.19	1,080.57
	6	18-02-2023	6,195.35	81.42	999.15	1,080.57
	7	18-03-2023	5,196.20	68.29	1,012.28	1,080.57
	8	18-04-2023	4,183.92	54.99	1,025.58	1,080.57
	9	18-05-2023	3,158.34	41.51	1,039.06	1,080.57
	10	18-06-2023	2,119.28	27.85	1,052.72	1,080.57
	11	18-07-2023	1,066.56	14.02	1,066.56	1,080.58

You can't edit the information displayed on this page.

4. View the following information displayed about each event, with some variations depending on the event type:
  - Transaction status, contract number, customer name, transaction number, type, and currency, all displayed in the header of the page.

The following details are displayed in the body of the page:

- Event date and value. Contract events added through API integration also contain an external identifier.
- Contract's financed and available amounts, and the installment method used for calculating the schedule.

- The event's results, in this example, the results of a disbursement event: amount of the installments, repayment day and tenor of the contract in months.
5. In the **Contract Repayment Schedule** section, view the information about each of the installments that are part of the repayment scheduled calculated as a result of performing the transaction:
    - Number of the repayment schedule version detail, date when the installment must be paid, value remaining to be repaid from the contract value at the moment of this installment, value of the interest and of the principal calculated for this installment, and total value of the installment to be paid.

## Adding Events To Approved Contracts (General Steps)

You can add events to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add events to a contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

3. Fill in the following fields, common to every transaction type:

- **Event Date** - This is pre-filled with current date.
- **Transaction Type** - Select from the list the transaction type. Only the transaction types associated with the banking product which is at the base of the contract are displayed here.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. A series of value fields are automatically calculated and their values are displayed.
5. Depending on the selected transaction type, follow the instructions for each event type as defined in the corresponding topics:
  - Disbursement - described in the "[Disbursing a Loan](#)" on [page 297](#) topic
  - Early repayment - described in the "[Refinancing a Loan By Performing an Early Repayment](#)" on [page 369](#) topic
  - Reschedule Overdues - described in the "[Rescheduling the Overdue Amounts for a Contract](#)" on [page 365](#) topic
  - Payment Holiday - described in the "[Applying Payment Holiday to a Loan](#)" on [page 335](#) topic
  - Returned Amount or Goods - described in the "[Working with Returns](#)" on [page 350](#) topic.
6. After defining the event as described in the corresponding page, save it.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the

message and try saving the event again.

While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.

Depending on the selected transaction type, new sections are displayed at the bottom of the page, containing the contract repayment schedule for the event and any generated notifications.

7. If it appears, click the **Calculate/ Simulate Early repayment/ Simulate repayment schedule/ Simulate reschedule overdues** buttons (the displayed button depends on the selected transaction type) to view the details of each installment.

For **Reschedule Overdue** transaction type, select from the list the overdue payment notifications that you wish to reschedule.

8. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

9. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status.

The event value is now applied and visible in the contract's **Payments** tab -> **Transactions** section.

**NOTE**

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Managing Repayment Notifications

Loan Management automatically generates notifications for each installment that has to be paid for existing contracts that disbursed various amounts to customers. There can be various types of notifications generated for fees, commissions, payment holidays, and so on. Loan Management also assists you reconcile wrongly processed cases and other situations resulted from delayed processing/ wrong updates. Thus, depending on your user rights, you can [manually add notifications](#) for an active contract based on lending product types, term loans, and mortgages, or add notifications for amounts to be recovered even if there is no active contract. Loan Management includes all such manual notifications in the recovery processes.

All the repayment notifications that are not paid in full after their maturity dates are subject to automated penalty calculation processes performed by Loan Management. Thus, for repayment notifications linked to a contract, Loan Management uses the penalty interests defined within the interests list attached at the banking product level, and for repayment notifications not linked to a contract, it uses the penalty interest list specified in a [system parameter](#).

**NOTE**

All the Front -End Fee commission types with Once periodicity type applied to a contract are notified and must be paid when the contract is approved. The [Loan Management system parameter FrontEndFee](#) defines the type of commission that is automatically notified at the contract approval.



**CURRENT STATUS** APPROVED > NEXT STATUS CLOSED

CONTRACT NUMBER 3569 ACTIVATION DATE 20/08/2021 CREATED BY vladb VERSION 2 VERSION DATE 20/08/2021 03:00 CONTRACT CATEGORY Normal Tooltips On

**FEES & COMMISSIONS**

Refresh

Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
Commission Applied To Amount	EUR	20/08/2021	10.0000	12.50	Monthly
Corporate Loan Terms Front-end Fee EUR	EUR	20/08/2021	8.0000	51.00	Once
Repayment Fee EUR	EUR	20/08/2021		18.50	Once

**CURRENT STATUS** PROCESSED

**EDIT REPAYMENT NOTIFICATION**

**REPAYMENT NOTIFICATION**

No. 199204 Contract 3569 Currency EUR

Notification Date 20/08/2021 Maturity Date 20/08/2021 Total Amount 276

**REPAYMENT NOTIFICATION DETAILS**

Export Refresh

Operation Item	Value	Remaining Value	Is Paid
Front-end Fee	51.00	0.00	<input checked="" type="checkbox"/>
Advance	225.00	0.00	<input checked="" type="checkbox"/>

**PAYMENT ALLOCATIONS**

Payment No.	Payment Date	Operation Item	Allocated Amount	Due Date	Delay (days)
9828	20/08/2021	Front-end Fee	51.00	20/08/2021	0
9828	20/08/2021	Advance	225.00	20/08/2021	0

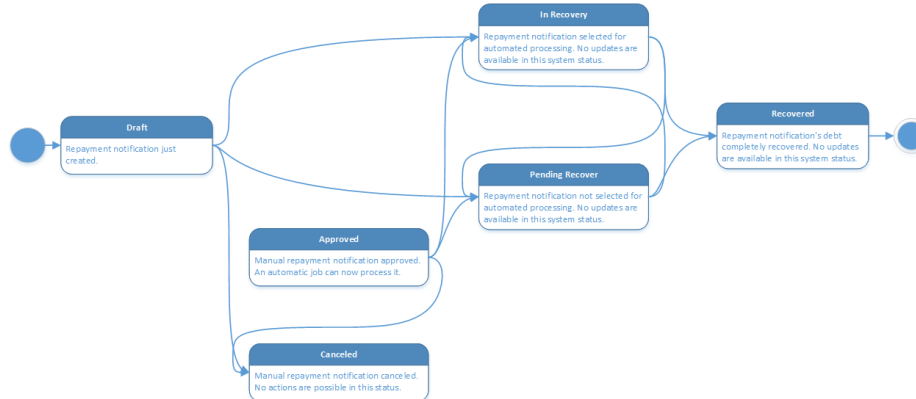
## Repayment Notification Statuses

A repayment notification record has the following business workflow statuses:

- **Draft** - the status of a newly created repayment notification record, either automatic or manual.
- **Approved** - the status of a manual repayment notification record after being authorized by a user with notification approval competencies. While in this status, you cannot edit the record's details. From this status, the record is picked up by a [scheduled job](#) and its status is automatically changed, depending on the direct debit settlement settings. If the Direct Debit Settlement Account field at the contract level = True, then the manual notification's status changes to **In Recovery**, otherwise it changes to **Pending Recover**.

- **Canceled** - the status of a manual repayment notification after canceling it straight from the **Draft** status. You can only cancel a manual notification if its Total Amount = Remaining Value.
- **Pending Recover** - this is a system status applied to repayment notification when Direct Debit Settlement Account at the contract level is set to False. No updates are available in this system status.
- **In Recovery** - this is a system status applied to repayment notification when Direct Debit Settlement Account at the contract level is set to True. No updates are allowed on the record.
- **Recovered** - the last status of a repayment notification, after the complete recovery of the notification's debt. No updates are allowed on the record.

The repayment notification status transitions are illustrated below:



## Accessing Repayment Notifications

Loan Management enables you to access notifications in several places, for your convenience.

### Accessing a contract's repayment notifications

To view the notifications generated for a specific contract, follow these steps:

1. On the **Contract** page, navigate to the **Payments** tab > **Repayment Notifications** section.
2. View all the repayment notifications generated for the contract. This section only has information if the contract is in **Approved** status and disbursements were already performed.

REPAYMENT NOTIFICATIONS

Export Refresh

No	Customer	Date	Currency	Amount	Remaining	MaturityDate
Q	Q	Q	Q	Q	Q	Q
192896	Oana C	25/11/2021	EUR	0.13	0.00	25/11/2021
192714	Oana C	12/11/2021	EUR	239.16	0.00	12/11/2021
192613	Oana C	22/10/2021	EUR	0.78	0.00	22/10/2021
192462	Oana C	12/10/2021	EUR	239.16	0.00	12/10/2021
192199	Oana C	12/09/2021	EUR	239.16	5.18	12/09/2021
191933	Oana C	12/09/2021	EUR	653.50	0.00	12/09/2021
191814	Oana C	31/08/2021	EUR	14.76	0.00	31/08/2021
191465	Oana C	12/08/2021	EUR	653.50	0.00	12/08/2021
192136	Oana C	12/08/2021	EUR	239.16	0.00	12/08/2021
192135	Oana C	12/07/2021	EUR	239.16	0.00	12/07/2021

5 20 1 2 4

Repayment notifications highlighted in blue are already paid, allocated or closed to payment, while the ones not highlighted remain to be paid.

3. View the information is displayed about each notification:
  - Number, date, and status of the notification
  - Customer and currency of the contract
  - Amount of the installment for which the notification was generated
  - Remaining amount from the installment to be paid
  - Maturity date of the notification, automatically calculated adding the value of the Grace period for repayment field at the product

service configuration level to the notification date.

# Accessing all the repayment notifications generated by Loan Management

To access all the notifications created in Loan Management, follow these steps:

- 1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
- 2. To access only manually captured notifications, click **Manual Repayment Notification** menu item to open the **Manual Repayment Notifications** page.

MANUAL REPAYMENT NOTIFICATION								
<input type="checkbox"/> No	Customer	Notification Date	Currency	Notification Status	Total Amount	Remaining Value	Locked for DD	
Q	Q	Q	Q	Q	Q	Q	(All)	
59178	Littel and Sons	05/07/2023	EUR	Recovered	559.00	0.00	<input type="checkbox"/>	
59181	Hyatt - Dooley	21/06/2023	EUR	Recovered	521.00	0.00	<input type="checkbox"/>	
59190	Smith and Sons	21/06/2023	EUR	Processed	886.00	886.00	<input type="checkbox"/>	
59954	Nassem Prince ...	20/01/2023	EUR	Draft	100.00	100.00	<input type="checkbox"/>	
59953	Nassem Prince ...	20/12/2022	EUR	Processed	100.00	100.00	<input type="checkbox"/>	
1	10	20					1	2 3 4 5 ...

- 3. To access automatic and manual notifications, click **Repayment Notification** menu item to open the **Repayment Notifications List** page.

REPAYMENT NOTIFICATIONS LIST								
<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status	
Q	Q	Q	Q	Q	Q	Q	Q	
59178	Littel and S...	05/07/2023	EUR	559.00	0.00	05/07/2023	Recovered	
59177	Littel and S...	05/07/2023	EUR	1,200.00	0.00	05/07/2023	Recovered	
59176	Littel and S...	05/07/2023	EUR	440.00	0.00	05/07/2023	Recovered	
59190	Smith and ...	21/06/2023	EUR	886.00	886.00	24/06/2023	Processed	
59189	Smith and ...	21/06/2023	EUR	1,200.00	0.00	21/06/2023	Recovered	
1	10	20					1	2 3 4 5 ...

## Viewing Repayment Notifications

1. To view the details of a repayment notification, double-click the desired record. The **Edit Repayment Notification** page is displayed for automatically generated notifications, or the **Edit Manual Repayment Notification** page for manual notifications, both presenting the repayment notification details.

Dashboard

Recovery

Repayment Notification No

58852

### Manual Repayment Notification

Customer	Currency	Contract	Source Bank Account	Total Amount
Aetec SRL	EUR	7997		498.53
Notification Date	Maturity Date	Repayment Description		
10/03/2023	10/03/2023			

### Repayment Notification Details

[Export](#)
[Refresh](#)

<input type="checkbox"/> Operation Item	Value	Remaining Value	Is Paid
Q	Q	(All)	-
Loan Interest	25.33	0.00	<input checked="" type="checkbox"/>
Management Fee	10.00	0.00	<input checked="" type="checkbox"/>
Loan Principal	463.20	0.00	<input checked="" type="checkbox"/>

### Payment Allocations

<input type="checkbox"/> Payment No.	Payment Date	Operation Item	Allocated Amount	Due Date	Delay (days)
465241	12/02/2023	Management Fee	10.00	10/03/2023	0
470312	12/03/2023	Loan Principal	34.77	10/03/2023	2
470241	12/03/2023	Loan Principal	94.19	10/03/2023	2
470395	12/03/2023	Loan Principal	334.24	10/03/2023	2
465241	12/02/2023	Loan Interest	25.33	10/03/2023	0

### Repayment Notification Penalties

[Export](#)
[Refresh](#)

Penalized Item	Penalty Date	Penalty Notification	Overdue Days	Penalty Amount	Is Paid	Description
Q	Q	<input checked="" type="checkbox"/> Q	Q	Q	(All)	- Q
No data						

## NOTE

Automatically generated notifications can't be edited!  
You can only edit the details of manual notifications in  
Draft status.

2. View notification specific data in the **Repayment Notification** section:

- **Repayment Notification No.** - The number of the repayment notification record.
  - **Customer** - The customer for whom the notification was generated.
  - **Currency** - The currency of the notification.
  - **Contract** - The number of the contract for which the notification was generated.
  - **Notification Date** - The date when the notification was generated.
  - **Maturity Date** - The maturity date of the notification. This is calculated by adding the value of the Grace period for repayment field at the product service configuration level to the notification date.
  - **Source Bank Account** - The bank account from where the notified amount should be allocated.
  - **Total Amount** - The total amount to be paid within the notification (the sum of all the details' values).
  - **Repayment Description** - A description of the manual notification.
3. View details (lines) of the notification in the **Repayment Notification Details** section:
- **Operation Item** - The operation item for which the notification detail is generated.
  - **Value** - The value of the notification detail.
  - **Remaining Value** - The remaining value still to be paid from the notification value.
  - **Is Paid** - This checkbox is automatically marked as true when the full amount is allocated to the detail value. You cannot change this value.

### NOTE

Notification details are automatically marked as paid when a repayment transaction performed and approved for the contract is allocated by the system to cover the value of the notification detail.

4. To view more information about a notification detail, double-click it to open the **Repayment Notification Details** page:

NOTIFICATION NO  
59181

DETAIL NO  
91084

Add Repayment Notification Detail

Repayment Notification Detail

Operation Item

CurrencyId

Value

RemainingValue

Loan Principal

EUR

24

0

Payment Allocations

<input type="checkbox"/> Contract	Payment	Payment Date	Operation Item	Allocation Value	Delay Days
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9337	471800	21/06/2023	Loan Principal	24.00	0

5. View information about the payments allocated for the notification details in the **Payment Allocation** section:
- **Payment No.** - The number of the payment.
  - **Payment Date** - The date when the payment was performed.
  - **Operation Item** - The operation item from the notification for which the payment was allocated.
  - **Allocated Amount** - The amount allocated from the payment.
  - **Due Date** - The due date of the notification.

- **Delays (days)** - The number of days passed since the notification's due date.
6. To view more information about a payment allocation, double-click it to open the **Edit Payment Allocation** page:

EDIT PAYMENT ALLOCATION

**Allocation Details**

Contract  
9337

Allocation Value  
24

**Payment**

Payment  
471800

Repayment Notification  
59181

**Payment Date**

Payment Date  
21/06/2023

Operation Item  
Loan Principal

**Currency**

Currency  
EUR

Delay Days  
0

**Contract Installment Details**

Contract Installment No

Installment Due Date

**Repayment Notification Details**

Notification Maturity Date  
21/06/2023

Notification Remaining Value  
0

You cannot edit any of the fields from this page.

### NOTE

The operation item is used in the payment allocation process. If the repayment notification is not linked to contract, then Loan Management takes the operation item value from the allocation method configured within the [ManualAllocationMethod](#) system parameter. If a repayment notification is created for a contract with **Closed** status, then Loan Management takes the operation item value from the allocation method selected at the product service configuration level.

7. View information about the penalties calculated for the manual repayment notifications that were not paid in full until their maturity date in the **Viewing Notification Penalties** section:



Repayment Notification Penalties

Export Refresh

Penalized Item	Penalty Date	Penalty Notification	Overdue Days	Penalty Amount	Is Paid	Description
Loan Principal	20/07/2022	60087	8	0.26	<input type="checkbox"/>	Total penalty is : 0.26 Pena...
Loan Principal	22/10/2022		102	3.09	<input type="checkbox"/>	Total penalty is : 3.35 Pena...

All the repayment notifications that are not paid in full after their maturity dates are subject to automated penalty calculation processes performed by Loan Management. Thus, for repayment notifications linked to a contract, Loan Management uses the penalty interests defined within the interests list attached at the banking product level. For repayment notifications which are not linked to a contract, Loan Management uses the penalty interest list specified in the [ManualPenaltyInterestList](#) system parameter.

Each penalty displays information about the penalized item, the penalty date, the number of penalty notification, the number of overdue days after the repayment notification's maturity date, the penalty amount, a description, and whether the penalty was pad or not.

8. To view more information about a correction entry, double-click it to open the **Edit Contract Penalty Detail** page:

EDIT CONTRACT PENALTY DETAIL

Contract Penalty Detail

ContractPenaltyId

Loan Item

Overdue Principal

Overdue Days

PenalizedNotificationDetailId

Penalty Amount

Description

Name

Penalized Item

Penalized Notification

Total penalty is : 0.26  
Penalty percent: 0.0003287671 was applied to 100.00, delay days for calculation 8

You can't edit any of the fields from this page.

9. View information about any correction entries created for the notification in the **Viewing Corrections** section. Contract correction entries are automatically generated, for notifications that are overdue, when creating a **Reschedule Overdue** transaction type contract event. Here you can see information about the customer of the contract, the date and currency of the correction entry, and the total amount of the correction (the sum of all the correction details' values).
10. To view more information about a correction entry, double-click it to open the **Edit Contract Correction Entry** page:

EDIT CONTRACT CORRECTION ENTRY

**Contract Correction Entry**

Repayment Notification

59181

Customer

Hyatt - Dooley

Contract

9337

Correction Date

14/07/2022

Currency

EUR

Total Correction

3

**Contract Correction Entry Details**

+ Insert
Export
Refresh

	Operation Item	Correction Value
	Q	Q
		-2.00
		5.00

- **Repayment Notification** - The repayment notification number.
  - **Contract** - The contract number associated with the notification.
  - **Currency** - The currency of the notification.
  - **Customer** - The customer associated with the notification.
  - **Correction Date** - The date when the correction was created.
  - **Total Correction** - The sum of all correction entry detail records associated with the current correction entry.
11. Additionally, you can view information about each detail within the correction:

- **Operation Item** - The operation item of the transaction for which the correction entry detail was inserted.
- **Correction Value** - The value of the correction entry detail, in the correction entry's currency.

## Understanding Automated Settlement of Repayment Notifications (Direct Debit Settlement Account)

The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Loan Management automatically uses the available balance up to full settlement of repayment notifications.

When you have restrictions of any kind on the settlement account or the allocation simply needs to be done as per a legal authority instructions, you can turn off the automated settlement of Installment type repayment notifications functionality (the payment allocation) at the **contract level** using the Direct Debit Settlement Account checkbox. De-selecting the checkbox leads to the underlying amounts on notifications pending recovery not being retrieved automatically even if there are available funds in settlement account. Thus, financial institution can manage the contracts in case of blocked accounts and control the allocation of funds to outstanding Installment type notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

This parametrization is available at product level, you can it amended at the contract level, and it is also available at customer level with a system parameter to instruct Loan Management if the customer level setup should impact underlying contracts or not. Thus, you can manage the Direct Debit Settlement Account setting at the **customer level**. The customer level setting takes

precedence over the setting at the contract level when creating new contracts. For existing contracts, Loan Management applies the setting configured within the `CustomerToContractDirectDebitSettlementAcc` system parameter.

If the automated settlement of repayment notification functionality is turned off, the contract is pending for manual repayment. You can turn it back on as required, when required, and allow Loan Management to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications. When the functionality is turned on or off, the notifications already processed remain unchanged. You can turn the automated settlement functionality on or off even after the maturity of a loan, as long as the contract is not closed.

The following validations are performed for the `Direct Debit Settlement Account` field at the contract level:

- If `Direct Debit Settlement Account = True` and new `Installment` type repayment notifications are generated, the system automatically tries to recover the values from `Settlement Amount`. When the repayment notification is fully paid, Loan Management automatically changes the `Installment` type repayment notification's status to `Recovered`.
- If `Direct Debit Settlement Account = True` and old unpaid `Installment` type repayment notifications already exist, the system tries to create recover debt records for the remaining amount for all unpaid `Installment` type repayment notifications, and changes their status to `In recovery`.

- If `Direct Debit Settlement Account = False` and new Installment type repayment notifications are generated, the system doesn't register any debt to recover, and changes the notification's status to `Pending Recover`.
- if `Direct Debit Settlement Account = False` and old Installment type repayment notifications are generated, the system removes debts to recover from the Settlement Account, and changes the status to `Pending Recover`.

## Viewing a Contract's Penalties

You can view the penalty interest already notified for the contract in the **Penalties** section of the **Payments** tab. These penalties are automatically calculated by Loan Management for an approved contract based on all the interests with selected **Is Penalty** checkbox that are applied to this contract.

To view the penalties applied to a contract, follow these steps:

1. On an approved contract's **Payments** tab, navigate to the **Penalties** section. If any penalty interest was calculated for the contract, they are displayed here:

Penalties

Export

Refresh

<input type="checkbox"/>	PenaltyDate	PenaltyAmount	Payed	NotificationNo
<input type="text" value="Q"/>	<div><div></div><div><input type="text" value="Q"/></div></div>	(All)	<div><div></div></div>	<div><div><input type="text" value="Q"/></div></div>
	01/07/2022	5.42	<input type="checkbox"/>	59086
	12/09/2022	5.84	<input checked="" type="checkbox"/>	59057
	21/09/2022	3.39	<input type="checkbox"/>	59648
	16/10/2022	0.75	<input type="checkbox"/>	60187
	08/11/2022	4.34	<input type="checkbox"/>	60188

5

1020

1

23

2. View basic information about the penalties in the list, such as penalty date, amount, notification number and whether it was paid or not. Payed penalties are also highlighted in blue, for your convenience.

3. To see detailed information about one of the applied penalties, double-click on the desired penalty record. The **Contract Penalty** page is displayed with the selected penalty's details:

EDIT CONTRACT PENALTY

Contract Penalty

Contract

9136

Customer

BOBO SanLegal

Is Paid

☒

Name

Notification

59057

Penalty Amount

5.84

Penalty Date

12/09/2022

Contract Penalty Details

+ Insert

✕ Delete

📄 Export

🔄 Refresh

<input type="checkbox"/>	Penalized Notification	Penalized Item	Overdue Days	Penalty Amount	Loan Item	Description
	🔍	🔍	🔍	🔍	🔍	🔍
	59042	Loan Principal	31	5.30	Overdue Principal	Total penalty is : 5.30 Pen...
	59042	Loan Interest	31	0.54	Overdue Interest	Total penalty is : 0.54 Pen...

You can't edit the information displayed on this page.

4. View the information in the **Contract Penalty** section, as displayed:
- **Contract** - The number of the contract for which the penalty is applied.
  - **Customer** - The customer for whom the contract was created.
  - **Is Paid** - A checkbox indicating whether the penalty was already paid through a payment allocation or not.
  - **Name** - The name of the penalty.
  - **Notification** - The number of the notification where the penalty is included.
  - **Penalty Amount** - The amount of the penalty expressed in the contract's currency.
  - **Penalty Date** - The date when the penalty was calculated.

5. View the information in the **Contract Penalty Details** section, as displayed:
  - **Penalized Notification** - The notification which was not paid in time and for which the penalty is calculated.
  - **Penalized Item** - The item to which the penalty interest was applied.
  - **Overdue Days** - The number of days since the notification was overdue for payment.
  - **Penalty Amount** - The calculated amount of the penalty.
  - **Loan Item** - The loan item which is used to calculate the penalty interest.
  - **Description** - The description of the contract penalty detail. It contains the total penalty value, the penalty percent or value applied to the number of overdue, and the delay days for calculation.
6. Double-click a detail record to view the details of the penalty on a separate page, **Edit Contract Penalty Detail**:

EDIT CONTRACT PENALTY DETAIL

**Contract Penalty Detail**

ContractPenaltyId

Loan Item

Overdue Days

PenalizedNotificationDetailId

Penalty Amount

**Description**

Total penalty is : 5.30  
Penalty percent: 0.0003287671 was applied to 520.07, delay days for calculation 31

Name

Penalized Item

Penalized Notification

You can't edit the information displayed on this page.

## Viewing Customer Payments

Loan Management processes payments automatically, so you can't insert payment records manually. Payment information is displayed at the contract level, within the **Payments** tab. For convenience, you can also view each performed payment, along with its allocation details, on the **Customer Payments** page.

## Payment Statuses

A payment record has the following statuses, visible next to the payment number on the **Payment** page:

- **Draft** - the status of a newly created record that was not yet sent for allocation. The payment amount is not allocated yet as repayment for the contract's repayment notification. You can delete records with this status.
- **Unallocated** - the status of a payment record before its amount gets allocated as payment for a repayment notification.
- **Partially Allocated** - the status of a record after some of its amount gets allocated as payment for a repayment notification.
- **Allocated** - the status of a record after its entire amount gets allocated as payment for a repayment notification. There is no further transition from this status.

### IMPORTANT!

Only payments with **Allocated** status operate changes at the contract repayment notification level.

To view a specific payment, follow these steps:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Customer Payments** menu item to open the **Customer Payments** page.



CUSTOMER PAYMENTS									
<input type="checkbox"/>	Payment No	Payer Name	Transaction Date	Currency	Payment Amount	Allocated Amount	Remaining Payme...	Total Payment Am...	Status
	Q	Q	Q	Q	Q	Q	Q	Q	Q
	10002	FIN000001719	06/10/2021	EUR	12,950.00	12,950.00	0.00	12,950.00	Allocated
	10003	FIN000001719	06/10/2021	EUR	568.50	568.50	0.00	568.50	Allocated
	10004	FIN000001721	06/10/2021	EUR	480.00	480.00	0.00	480.00	Allocated
	10005	FIN000001721	06/10/2021	EUR	12,000.00	12,000.00	0.00	12,000.00	Allocated
	10006	FIN000001721	06/10/2021	EUR	18.50	18.50	0.00	18.50	Allocated
	10008	FIN000001721	06/10/2021	EUR	480.00	480.00	0.00	480.00	Allocated
	10009	FIN000001721	06/10/2021	EUR	1,200.00	1,200.00	0.00	1,200.00	Allocated
	10010	FIN000001721	06/10/2021	EUR	18.50	18.50	0.00	18.50	Allocated
	10020	FIN000001731	07/10/2021	EUR	120.00	120.00	0.00	120.00	Allocated
	10021	FIN000001731	07/10/2021	EUR	1,200.00	1,200.00	0.00	1,200.00	Allocated

On the **Customer Payments** page, you can search for records, delete a payment in **Draft** status, or open a specific a payment for viewing.

- Double-click the desired payment on the **Customer Payments** page. The **Edit Payment** page is displayed.

PAYMENT NO  
10002

STATUS  
Allocated

EDIT PAYMENT

Payment No  
10002

Customer  
BU13

Payer Name  
FIN000001719

IBAN

Transaction Date  
06/10/2021

Currency  
EUR

Bank Reference

Bank Charge  
0

Total Payment Amount  
12,950

Payment Amount  
12,950

Allocated Amount  
12,950

Unallocated Amount  
0

Comments  
auto payment

Payment Allocations

Export
Refresh

<input type="checkbox"/>	Contract	Payment	Payment Date	Operation Item	Allocation Value	Delay Days
	Q	Q	Q	Q	Q	Q
	3190	10002	06/10/2021	Repayment Fee	18.50	0
	3190	10002	06/10/2021	Loan Principal	12,931.50	0

You can only view a payment record, but you can't edit any of the fields of a payment.

4. View the following information about the selected payment:
  - **Payment No** - The number of the payment, as generated by Loan Management.
  - **Customer** - The name of the customer associated with the payment.
  - **Payer Name** - The bank account number from where the payment was performed.
  - **IBAN** - The IBAN of the account where the money is being paid.
  - **Transaction Date** - The date of the payment transaction.
  - **Currency** - The currency of the payment.
  - **Bank Reference** - The bank reference for the payment.
  - **Bank Charge** - The amount charged by the bank for performing this transaction.
  - **Total Payment Amount** - The sum of the payment amount and the bank charge value.
  - **Payment Amount** - The amount of the payment.
  - **Allocated Amount** - The amount that was already allocated as a contract's repayment for a notification for the selected customer.
  - **Unallocated Amount** - The amount that remains to be allocated as a contract's repayment for a notification for the selected customer.
  - **Comments** - Any comments referring to the payment.
5. View the payment allocation information, displayed in the **Payment Allocation** section.

## Payment Allocations



<input type="checkbox"/>	Contract	Payment	Payment Date	Operation Item	Allocation Value	Delay Days
Q	Q	Q	Q	Q	Q	Q
	3190	10002	06/10/2021	Repayment Fee	18.50	0
	3190	10002	06/10/2021	Loan Principal	12,931.50	0

This section is empty for payments in **Draft** or **Unallocated** status. The payment allocations for due repayment notifications are automatically calculated by Loan Management and they are displayed after the record reaches the **Allocated** or **Partially Allocated** status.

6. View more details about each allocation by double-clicking it. The payment allocation record opens in the **Allocation Overview** page, displaying the following information:

The screenshot shows the 'Allocation Overview' page with a blue header. Below the header is a dark blue bar with the text 'EDIT PAYMENT ALLOCATION'. The main content area is divided into two sections: 'Allocation Details' and 'Contract Installment Details'.

**Allocation Details**

Contract 3190	Payment 10002	Payment Date 06/10/2021	Currency EUR
Allocation Value 18.5	Repayment Notification 14595	Operation Item Repayment Fee	Delay Days 0

**Contract Installment Details**

Contract Installment No	Installment Due Date	Notification Maturity Date 06/10/2021	Notification Remaining Value 0
-------------------------	----------------------	--	-----------------------------------

- **Contract Id** - The contract for which the payment was allocated.
- **Payment** - The number of the payment.
- **Payment Date** - The date of the payment.
- **Currency Id** - The currency of the payment.
- **Allocation Value** - The value of the allocation.
- **Repayment Notification** - The repayment notification for which the payment was allocated.
- **Operation Item** - The operation item which was repaid with this allocation.
- **Delay Days** - The days passed since the due date.
- **Contract Installment No** - The number of the contract installment.
- **Installment Due Date** - The due date of the installment.

- **Notification Maturity Date** - The notification's maturity date.
- **Notification Remaining Value** - The notification's remaining value to be paid.

**NOTE**

You can't edit any of the fields of a payment allocation record.

## Working with Overdue Loans

Financial institutions classify their existing loan contracts based upon the days past due (DPD), the number of days passed since repayment due date without fully repaying the due amount for the oldest unpaid repayment notification. In order to comply with the risk method calculation, the DPD (days past due) value is calculated as the number of days between the contract's due date and the current system date of Loan Management. The financial institutions can apply different provision percentages for principal or for interest for each contract, based on this classification: the higher the delay period, the higher the provision percentage applicable and the risk classification.

In Loan Management, the loan classification works by risk contamination at the customer and the group levels. This means that if a loan contract belonging to a customer is classified as one of a higher risk due to delays in the repayment process, all the other loans of the customer and of the group where the customer is a member are further classified into that high-risk classification. The risk classification of loan contracts is automatically performed by the **Update Loan Classification (CB)** scheduled job based on the loan classification records' definition. Read about managing loan classification records in the [Loan Classification](#) topic.

Loan Management uses two system parameters that help you manage contracts with DPD:

- [UseContaminationForDPDCategory](#) - this parameter specifies whether Loan Management should use the risk contamination for loan classification or not;
- [DelayDaysForBlockNewContractApproval](#) - this parameter controls the default number of delay days for blocking the approval of new loan contracts for customers who have overdue payments.

You can view the contracts with DPD in the dedicated **Days Past Due** report, accessible through Loan Management's **Reports** menu. Double-click any of the contracts from the report to open it for editing. The report displays the contracts with overdue repayment notifications, along with information about the number of overdue days and the contract's classification based on the DPD:

REPORT DAYS PAST DUE

Customer	Contract	Activation Date	Amount	Overdue Days	Product	Available Amount	Utilized	Category
	11202	25/07/2022	10,000.00	0	Regression Term Loa...	0.00	10000.00	Normal
	11118	23/07/2022	10,000.00	13	Regression Term Loa...	0.00	10000.00	Normal
	9492	07/07/2022	10,000.00	60	Regression Term Loa...	0.00	10000.00	Special mention
	7423	25/05/2022	10,000.00	103	Regression Term Loa...	10,000.00	0.00	Sub-standard
	9426	06/07/2022	10,000.00	30	Regression Term Loa...	0.00	10000.00	Normal

You can also extract the information about overdue repayment notifications through API integration, using the [GetDataSourcePastDueInstallmentsReport](#) endpoint.

The allocation of funds for repayment notification is performed according to the cost allocation method defined at the [product service configuration](#) level:

Payment Allocation Settings

Repayment Allocation Method

CostOrder



Grace Days for Repayment

5

Penalty for grace period

☐

Direct Debit Settlement Account



EDIT ALLOCATION METHOD

Main Information

Name

CostOrder

Allocation Method Details

+ Insert

✕ Delete

📄 Export

🔄 Refresh

<input type="checkbox"/>	Credit Item	Minim Overdue Days	Maxim Overdue Days	Allocation Order
	🔍	🔍	🔍	🔍
	Life Insurance	0	999,999	1
	Overdue Interest	0	9,999,999	2
	Commission Unused ...	0	9,999,999	3
	Front-end Fee	0	9,999,999	4
	Advance	0	364	5
	Management Fee	0	999,999	6
	Commission Used Am...	0	9,999,999	7
	Payment Holiday Fee	0	9,999,999	8
	Commission Undrawn ...	0	9,999,999	9
	Repayment Fee	0	9,999,999	10

NOTE

In order to avoid having to deal with overdues, you can perform [payment holiday transactions](#). If you already have overdues, then perform [reschedule overdues transactions](#) on the contracts. Both transactions are usually part of the risk management/ collection departments' policies and can be proactively implemented by the bank, or on the customer's demand.

## Applying Payment Holiday to a Loan

The payment holiday represents taking a break of any number of installments for the generated repayment schedule of a loan. You can apply payment holiday for the principal alone or for both interest and principal of a loan contract. This has been a functionality in demand lately during the COVID pandemic, being a regulatory requirement for financial institutions. After applying a payment holiday transaction to a loan contract, Loan Management recalculates the repayment schedule, rebuilding the schedule projection automatically based on the instructions you provided.

**NOTE** If you are referring to payment holiday as a grace period, then you should read the "[Working with Grace](#)" on page 339 topic. For that sort of grace, after the initial granting of the loan, Loan Management has dedicated a transaction that can be enabled via product definition. It does pretty much the same just during the life of the loan, not at the very beginning of it.

## Adding a Payment Holiday Transaction To an Approved Contract

You can add payment holiday transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a payment holiday transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

Contract Event

Contract: 12717   Customer: BZT5   Currency: EUR   Event Date: 02/09/2022

Transaction Type: Payment Holiday

3. Fill in the following fields:

- **Event Date** - This is pre-filled with current date.
- **Transaction Type** - Select from the list the **Payment Holiday** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.

The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. A series of value fields are automatically calculated, their values are displayed, and you can't edit them: the contract's financed and available amounts, the selected installment calculation method, the repayment day and the contract's tenor.

The screenshot displays the 'EDIT CONTRACT EVENT' interface. At the top, a blue header bar contains navigation links and a status indicator. Below this, the main content area is divided into sections. The 'General Data' section includes fields for 'Event Date' (pre-filled with 02/09/2022) and 'External Identifier'. The 'Fees' section shows 'Charge Fee' (Payment Holiday F...) and 'Fee For Repayment' (100). The 'Payment Holiday Options' section contains checkboxes for 'Keep Contract Period' and 'Import Schedule', along with dropdown menus for 'Payment Holiday Period', 'Payment Holiday Period Type', and 'Reason'. A 'Simulate Payment Holiday' button is located at the bottom right.

5. Fill in the **external identifier** of the transaction, if available.
6. View the **fee for repayment** or the **repayment fee percent**, depending on which is displayed. The fee value or the percentage are pre-filled by Loan Management according to the **Charge Fee** defined for this transaction type. Depending on the ManualRepaymentFeeLoan Management system parameter's value, the system may allow you to change the fee or the percentage. See [Transaction Fees](#) for more details.



7. Set the payment holiday options:

- **Keep Contract Period** - Select this checkbox to instruct Loan Management to keep the period of the contract. If left unselected, the contract period is recalculated.
- **Payment Holiday Period** - Enter the number of months for which you request a break from the payments.
- **Payment Holiday Period Type** - Select the type of payment holiday to be applied for the contract:
  - **Both** - take a break from paying the principal and interest amounts of the installments.
  - **Principal** - take a break from paying the principal amount of the installments.
- **Reason** - Select the reason for requesting the event: activity suspended, major force, or financial restructuring.

The screenshot shows the 'EDIT CONTRACT EVENT' form. The 'General Data' section includes 'Event Date' (02/09/2022), 'External Identifier', 'Charge Fee' (Payment Holiday F...), and 'Fee For Repayment' (100). The 'Payment Holiday Options' section includes 'Keep Contract Period' (checked), 'Payment Holiday Period' (3), 'Payment Holiday Period Type' (Both), and 'Reason' (Major Force). There is also an 'Import Schedule' checkbox and a 'Simulate Payment Holiday' button.

8. Decide whether you want to use the repayment schedule calculated by Loan Management through automatic processes, or you want to import a custom schedule. For custom schedule, select the **Import Schedule** checkbox. Read more about importing a custom schedule file in the [Manually Upload Repayment Schedules](#) section of the user guide.

9. Click the **Save and Reload** button.

If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.

While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract

while the event is still in this status.

10. Click the **Simulate Payment Holiday** button to view the details of each installment of the calculated repayment schedule.

**General Data** Go to contract **Fees** Go to customer

Event Date: 02/09/2022 External Identifier:

Charge Fee: Payment Holiday... Fee For Repayment: 100

**Payment Holiday Options**

Keep Contract Period: ☒ Payment Holiday Period: 3 Payment Holiday Period Type: Both Reason: Major Force

Import Schedule: ☐ Simulate Payment Holiday

**Repayment Schedule**

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR
1	29-10-2022	5,000.00	0.00	0.00	10.00	10.00	0.00
2	29-11-2022	5,000.00	0.00	0.00	10.00	10.00	0.00
3	29-12-2022	5,000.00	0.00	0.00	10.00	10.00	0.00
4	29-01-2023	5,000.00	209.37	602.74	10.00	822.11	0.00
5	28-02-2023	4,397.26	43.97	608.77	10.00	662.74	0.00
6	29-03-2023	3,788.49	37.88	614.86	10.00	662.74	0.00
7	29-04-2023	3,173.63	31.74	621.00	10.00	662.74	0.00
8	29-05-2023	2,552.63	25.53	627.21	10.00	662.74	0.00
9	29-06-2023	1,925.42	19.25	633.49	10.00	662.74	0.00
10	29-07-2023	1,291.93	12.92	639.82	10.00	662.74	0.00
11	29-08-2023	652.11	6.52	652.11	10.00	668.63	0.00

11. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

CURRENT STATUS: DRAFT

NEXT STATUS: CHOOSE STATUS

Approved

Cancelled

12. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management applies the recalculated repayment schedule to the contract, displaying the previous schedule version in the **Contract Repayment Schedule Versions** section of the contract's **Payments** tab.

The transaction is visible in the **Transactions** section.

## Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12717	02/09/2022	01/09/2022 18:18

## Contract Repayment Schedule versions

<input type="checkbox"/> VersionNo	Versioning Reason	VersionDate	Date Schedule
1	Payment Holiday	02/09/2022	02/09/2022

## Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10067	Disbursement	Approved	02/09/2022	5,000.00	
	ECB10068	Payment Holiday	Approved	02/09/2022		

**NOTE**

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Working with Grace


You can apply a grace period to a loan contract, so that the customer starts repaying the loan later, effectively moving the due installments in the future with a number of months (or as per periodicity). You can set the grace period to apply for the loan's principal, the loan's interest, or both.

**NOTE** If you wish to apply a grace period during the life of the contract, then you should read the ["Applying Payment Holiday to a Loan" on page 335](#) topic.

Loan Management uses the grace concept in two different contexts, at the loan level or the installment level. The grace period settings must be applied at the banking product's service configuration level, as follows:

- **Loan grace** - This is negotiated as part of the approval of a loan contract and is granted at the beginning of the loan, for a given number of installments during which the borrower pays only interest or nothing at all. This one has an impact on the schedule projection. Set the loan grace at the product definition level, in

the **Repayment** section, as described in the [Product Factory user guide](#).

 Repayment

Repayment is performed on Monthly in equal installments with schedule Actual/365

Grace period interest principal both

The loan grace setting are exposed at contract definition level for you to customize according to the customer's needs, within the [Repayment Overview](#) section:

Repayment Overview

Schedule Type
 Equal Installment Mon...

Due Day
 15

Initial Royalty
 416.67

Repayment at end of month
☐

Contract Period
 12

Periodicity Type
 Monthly

Number of installments
 12

Is Manual Value
☐

Contract Period Type
 Months

Installment Method
 Next Period

Principal Grace Period (Months)
 0

MaturityDate
 15/08/2023

FirstDueDate
 15/09/2022

Interest Grace Period (Months)
 0

## NOTE

You can change the grace period only until the first installment is notified.

- Installment grace** - This is when you set a number of days allowed for the borrower to settle their notified amounts. Suppose the contract's schedule has its due date every month on the 15th and you want to allow for 5 days for the amounts to be recovered. If the amounts are not recovered in the 5 days, you also have the option to recalculate the penalty interest, if such interests exist on the contract, starting from the initial due date of 15th, or start applying it starting from 20th of the month. This one does not have an impact on the schedule projection, but on how and when to consider the amounts as overdue, and it relates to the notifications processing. These settings must be set at the [product service configuration level](#).

Payment Allocation Settings

Repayment Allocation Method

CostOrder

↓

✎

Grace Days for Repayment

5

Penalty for grace period

☐

Direct Debit Settlement Account

☒

Working with Participants

The participants to a contract are those legal or individual persons who have a role to play during the life-cycle of the contract. They can be the person who borrows the funds, the actual beneficiary of the funds, the company administrator of the legal person, a notary, and so on. Another example are the agents, brokers, insurers, or merchants who participate in contracts as third-party entities, and they may get commissions according to third-party agreements. They must be recorded in contracts as contract participant with the specified role in order to qualify for the commissions stated in the agreement pricing records added to an agreement.

While creating a contract, Loan Management automatically populates the **Contract Participants** section within the **Overview** tab of the contract with the customer's information as both Borrower and Beneficiary of the funds, for loan contracts. If the customer is a legal entity, all the company's already entered legal representatives such as administrators, affiliates, owners, or other key contact persons are displayed in this list. In the **Contract Participants** section, you can [add other participants](#) to the contract, like Guarantors, Co-Debtors, etc, even after approval, delete, [block](#), or export customers who participate in a contract.

Contract Participants

+ Insert

x Delete

📄 Export

🔄 Refresh

<input type="checkbox"/>	Participant	Role	Status	Blocking Reason	Block Role Date	Block Disbursement
	🔍	🔍	🔍	🔍	🔍	📅 (All) ▾
	Jane	Beneficiary	Active			▪
	Jane	Borrower	Active			▪

There may be cases when some roles are mandatory for a product. If there is a mandatory role defined in the [banking product's service configuration](#), Loan Management displays an error on trying to approve the contract without a customer mentioned in the contract with that specific role.

#### Mandatory Roles for Contract Approval

+ Insert
✕ Delete
📄 Export
🔄 Refresh

☐
Role

Search Limit

(All)

Beneficiary
☐

## Adding Participants

1. To add a participant, click **Insert** in the **Contract Participants** section of contract in Draft, Version Draft, or Approved status.
2. On the newly displayed **Participant** page, fill in the following fields:

Participant

Participant

Role

Merchant

Blocking Reason

Select...

- **Participant** - Select from the list the name of the customer who can access the contract.
  - **Role** - Select from the list the role in the contract of the previously selected customer.
  - **Blocking Reason** - Leave this empty if you don't want to limit the customer's access to the contract.
3. Click the **Save and Close** button.

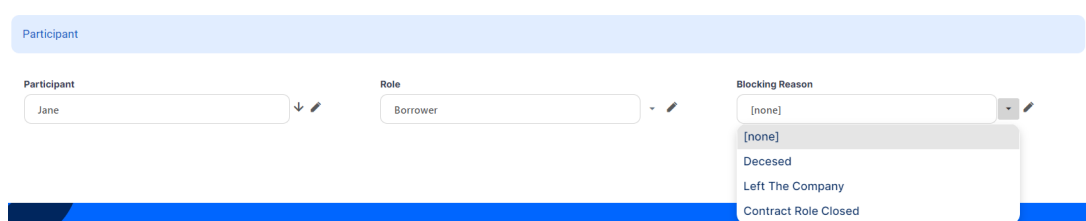
### IMPORTANT!

For legal entity customers, add the participant with the **Company Administrator** role, otherwise, the loan contracts cannot be approved. This is not the case for current account contracts.

## Blocking Participants

If you need to block an existing participant's access to the contract for various reasons, such as the person left the company who is the beneficiary of the contract, follow these steps:

1. Double-click an existing participant in the **Contract Participants** section of contract in Draft, Version Draft, or Approved status.
2. On the displayed **Participant** page, in the **Blocking Reason** field, choose the reason for blocking the selected participant from accessing the contract.



The screenshot shows the 'Participant' page with three main fields: 'Participant', 'Role', and 'Blocking Reason'. The 'Participant' field contains the name 'Jane'. The 'Role' field contains 'Borrower'. The 'Blocking Reason' field is open, showing a dropdown menu with the following options: '[none]', 'Deceased', 'Left The Company', and 'Contract Role Closed'.

3. In the **Block Role Date** field, select the starting date for blocking the participant's access to the contract.
4. Select the **Block Disbursement** checkbox to instruct Loan Management to stop disbursements on the contract, if needed.
5. Click the **Save and Close** button.

## Working with Tranches

Tranches represent multiple disbursements performed from a loan's financed amount, which allow you to implement progressive access to the funds. This is valuable in case of loans granted for investment projects where you can know upfront that there is a plan for the project and payments need to happen for each stage of the project, those stages being known from the start. Tranches are usually used for corporate loans, such dividend payments or cash outflows are not done in equal amounts and usually trigger a recalculation in terms of interest.

The disbursement tranches are configured at the product level.

1 Main Info 2 Details 3 Availability 4 Dimensions 5 Product Formula Engine 6 Documents 7 Loan Core Settings 8 History 9 Origination Elements 10 GL Settings

**General Data**

Is Revolving ☒ Allow Refinancing ☒ Allow Restructuring ☐ Allow CoDebtor ☒ Max No. Of CoDebtors

**Disburse Settings**

Autodisbursement ☒ Max No Disbursements  Activ Tranche On Doc Submission ☒

**Product Guarantees**

Is Guaranteed ☒ Collateral Cover Percent  Allow Collateral Partial Release ☐

**Product Tranches**

+ Insert X Delete Export Refresh

Name	Tranche Percent	Start Month From...	Interest Percent
First Tranche	20.0000	1	2.0000
Second Tranche	40.0000	3	2.0000
Third Tranche	40.0000	6	1.0000

**Allowed Guarantee Types**

+ Insert X Delete Export Refresh

Guarantee Type	Max Accepted Covering Percent
Cash	40.00

At contract creation, Loan Management brings the tranche information from the product level. In the **Contract Tranches** section of the contract's **Overview** tab, you can also insert, delete or export disbursement tranches for the contract.

## Contract Tranches

+ Insert Export Refresh

Tranche Date	Tranche Percent	Amount	Usage Commission Pe...	Interest Percent	Status	Disbursement Event
19/08/2022	20.00	3,000.00		3.5000	Approved	

## Adding Tranches to a Contract

- To add a tranche in a contract based on a product that has a disbursement matrix set up, click **Insert** and fill in the following fields:

Contract Tranche

Tranche Date  Tranche Percent  Amount

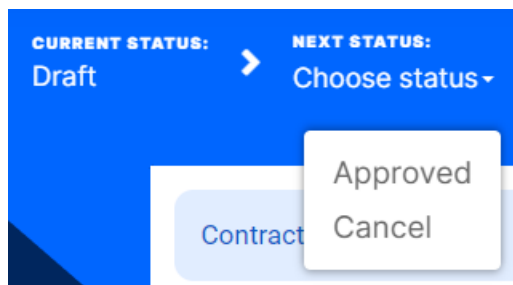
Interest Percent  Usage Commission Percent

Submitted Document   or Drop file here

- Tranche Date** - Select the date of the disbursement tranche.
- Tranche Percent** - Enter the percentage from the contract value that has to be disbursed with this tranche, or allow Loan Management to calculate it based on the **Amount** value.



- **Amount** - Enter the amount from the contract value that has to be disbursed with this tranche, or allow Loan Management to calculate it based on the **Tranche Percent** value.
  - **Interest Percent** - Enter the interest percent applicable for this tranche if it must be different from the interest rate applicable for the entire contract.
  - **Unusage Commission Percent** - Enter the commission percent applicable for the unused loan amount from this tranche.
  - **Submitted Document** - Upload the documents related to the tranche disbursement.
2. Click the **Save and Reload** button. If the product has no disbursement matrix, then Loan Management triggers an error. If Loan Management performs all validations successfully, then the tranche record is saved in **Draft** status.
  3. To activate the tranche, change the tranche's status to **Approved**. Note that you can't modify the details of an approved tranche.



4. Click the **Save and Close** button.
- Each day, Loan Management runs a specialized job to disburse Approved tranches, and the amount recorded in the tranche is disbursed in the contract's destination account. Alternatively, if you want to process the disbursement right-away, you can run the **Activate Tranche (CB)** job.

## Working with Covenants

The covenants are conventions that applicants must abide by after the approval of a contract. Such conventions are usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements and not only:

submit balance sheet every x months, have account turnover of at least x percent from average monthly turnover, provide other relevant documents from authorities. Covenants are configured at the product level.

While creating a contract, Loan Management brings the covenants to the contract level, in the **Contract Covenant** section of the **Overview** tab. There you also add, delete or export covenants for the contract.

#### Contracts Covenant

+ Insert ✕ Delete ■ Export 🔄 Refresh

<input type="checkbox"/>	Type	Covenant	Review Date	End Date	Resolution	Block Disbursem...	Status
	🔍	🔍	🔍	📅 🔍	📅 🔍	(All) 🔍	🔍
<input type="checkbox"/>	Affirmative	Borrowers should perform tax obligations	31/08/2022		Insolvency	<input checked="" type="checkbox"/>	Breached

Upon adding a covenant to a contract, you must activate it. After approving the contract, when it reaches the covenant's review date, you must perform the review of the covenant. If the conditions are not met, then you can mark the covenant for blocking further disbursements of the contract. Further implementation is needed if you want automatic processes to take care of contracts with breached covenants.

## Adding & Activating Covenants

- To add a covenant to a contract, click **Insert** in the **Contracts Covenant** section of a contract in Draft or Version Draft status.
- On the newly displayed **Contract Covenant** page, fill in the following fields:

Contract Covenant

**Covenant**

Lender posses the righ to prevent merges or acquisitions

**Value**

**Covenant Type**

Negative

**Review Frequency (Months)**

12

**Review Date**

31/08/2022

- **Covenant** - Select the desired covenant from the list of possible values:
  - **Borrowers should perform tax obligations:** the lenders expect the borrowers to perform their tax obligations to both the business and towards their employees. This covenant is of type affirmative.

- **Lender can monitor borrower's current ratio:** the lender may continuously monitor the borrower's current ratio to ensure it stays relatively attractive and promising. This covenant is of type financial.
  - **Lender posses the right to prevent merges or acquisitions:** a clear stipulation that the lender possesses the right to prevent merges of acquisitions without proper notification or full knowledge of the process. This covenant is of type negative.
- Loan Management automatically fills in the covenant type.
- **Value** - Enter the numeric value of the covenant, if applicable.
  - **Review Frequency (Months)** - Enter the number of months after which the covenant has to be reviewed.
  - **Review Date** - Enter the date when the covenant has to be reviewed.
3. Click the **Save and Reload** button. The covenant is displayed in the list of covenants in the **Contracts Covenant** section, in **Draft** status.
  4. Activate the covenant record by changing its status to **Active** and confirming your action.

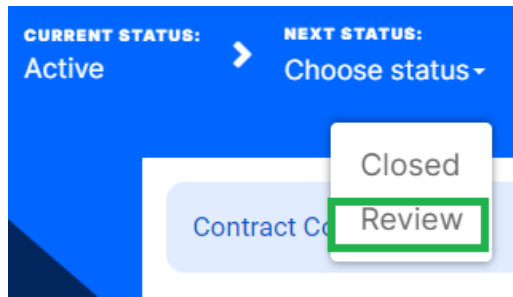
5. Click the **Save and Close** button. The covenant's status changes to **Active**.

## Reviewing Covenants

Loan Management allows you to add details about the process of reviewing a covenant for an approved contract.

1. To review an active covenant for an approved contract, double-click the desired covenant in the **Contracts Covenant** section of the contract's **Overview** tab.

2. On the newly displayed **Contract Covenant** page, change the covenant's status to **Review** and confirm your action.



The covenant's status changes to Review and the page reloads with new fields.

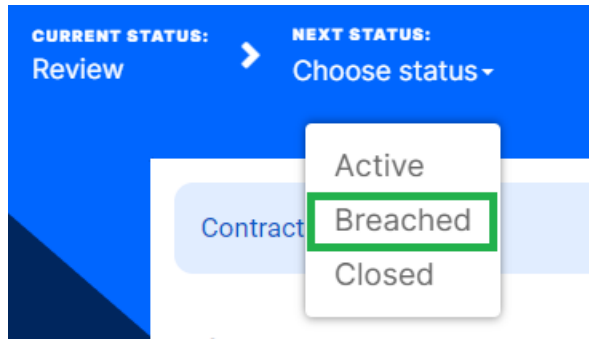
3. Fill in the following fields with the results of the covenant review process:

Contract Covenant

<b>Covenant</b> Lender possesses the right to prevent merges or acquisitions		<b>Value</b> <input type="text"/>	<b>Covenant Type</b> Negative
<b>Review Frequency (Months)</b> <input type="text" value="12"/>	<b>Review Date</b> <input type="text" value="31/08/2022"/>	<b>Grace Period (Months)</b> <input type="text"/>	
<b>Resolution</b> Insolvency	<b>Resolve Date</b> <input type="text" value="01/09/2022"/>	<b>End Date</b> <input type="text"/>	
<b>Start Early Termination</b> <input type="checkbox"/>		<b>Block Disbursement</b> <input checked="" type="checkbox"/>	

- **Grace Period (Months)** - Enter a grace period in month for the fulfillment of the covenant, if needed.
  - **Resolution** - Select from the list the actual resolution of the covenant. Add a new covenant resolution, if you can't find a match in the list.
  - **Resolve Date** - Enter the date when the covenant is considered as resolved.
  - **End Date** - Enter an end date for the covenant, if needed.
  - **Start Early Termination** - If the covenant's terms are not met, then you can check this field to mark the covenant for contract early termination.
  - **Block Disbursement** - If the covenant's terms are not met, then you can check this field to mark the covenant for blocking further disbursements of the contract.
4. Click the **Save and Reload** button.

5. If the covenant's terms are met, change the covenant's status to **Active** and confirm your action.  
If the covenant's terms are not met, change the covenant's status to **Breached** and confirm your action.



6. Click the **Save and Close** button. The covenant's status changes to Active or Breached, according to your previous choice.

**NOTE** Further implementations are needed in order for Loan Management to manage contracts with breached covenants if you need actions enforced at the contract level.

## Working with Contract Classification

Financial institutions may classify their contracts for organization purposes, or to mark some contracts as to belonging to a specific category or another. Loan Management brings the classifications defined at the product level to the contract level when creating a contract.

### **NOTE**

For information about the **automatic loan classification** performed by Loan Management based on DPD, please read the "[Loan Classification](#)" on page 56 topic.

You can manage a contract's classification within the **Contract Classifications** section on the **Overview** tab. Here you can insert, delete or export classifications for the contract.

## Contract Classifications

<input type="checkbox"/>	Contract	Code	Name	Classification Type	Valid From	Valid To
	Q	Q	Q	Q	Q	Q
	12669	REG1	Classification Regulatory	Regulatory	01/01/2020	31/12/2030

## Adding Classifications to a Contract

1. To add a classification to a contract, click **Insert** in the **Contract Classifications** section of a contract.
2. On the newly displayed **Add Contract Classification** page, fill in the following fields:

ADD CONTRACT CLASSIFICATION

Contract Classification

Classification

REG1

↓

✎

Contract

12669

↓

✎

Description

This contract falls under the REG1 classification.

- **Classification** - Select the desired classification for the contract from the list of classifications associated with the banking product.
  - **Description** - Enter a description for the contract classification.
3. Click the **Save and Close** button.

## Working with Returns

To manage merchandise return in a contract based on a BNPL-type banking product or even a return of funds in a different kind of loan, no matter if the return is partial or full, Loan Management allows you to perform an early repayment and decide if the repayment amount is excluded from interest calculation, as well as decide how to treat potentially claimed interest at the moment of performing the early repayment. This feature was created in context of BNPL where you can return goods but can also apply for mortgages when the deal drops and the solicitor returns the funds.

The Returned Amounts or Goods transaction triggers an early repay and reconciles/ gives back any interest if collected for that specific amount so far, as well as all or part of the upfront fee. The recalculation of the repayment schedule covers the recalculation of interest and the mitigation of potentially already charged/ notified interest amounts. Loan Management can capture the return for any amount no matter if the disbursement of the loan was done in one or multiple transactions. Even if there are overdue payments on the contract, the principal can be decreased and also the overdue notifications overdue are adjusted to reflect the early repayment, if the date of processing is before the notification date. The transaction only accepts Return Fee commission types. Upon transaction approval, a new contract version is automatically created.

Whether a contract allows or not Returned Amounts or Goods transactions must be defined at the [product service configuration](#) level.

#### Return Of Goods

Allow Return Of Goods



Accepted Days For Return

Return Message

## Adding a Returned Amount or Goods Transaction To an Approved Contract

You can add Returned Amounts or Goods transactions to an approved and disbursed contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a Returned Amounts or Goods transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

Contract Event

Contract: 12717

Customer: BZT5

Currency: EUR

Event Date: 02/09/2022

Transaction Type: Returned Amount or Goods

## 3. Fill in the following fields:

- **Event Date** - This is pre-filled with current date.
- **Transaction Type** - Select from the list the **Returned Amounts or Goods** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

## 4. Click the **Save and Reload** button.

The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. A series of value fields are automatically calculated, their values are displayed, and you can't edit them: the contract's financed and available amounts, the selected installment calculation method, the repayment day and the contract's tenor.



**EDIT CONTRACT EVENT**

**General Data** [Go to contract](#)

Event Date: 02/09/2022 | Date For Return: 02/09/2022 | Event Value: 1,100

External Identifier:

**Unpaid Info** [Go to customer](#)

Accrued Interest: 0 | Unpaid Amount On Contract: 0 | Unpaid Amount For Customer: 0

**Capital**

Repayment Principal Amount: 1,000 | Principal To Be Returned: 0 | Remaining Principal At Date: 5,000

Returned Accrued Interest: 0 | Interest To Be Returned: 0 | Interest For Returned Amount: 0

**Fees**

Return Fee: Return Fee EUR ↓ | Return Fee Value: 100

**Early Repayment Options**

Keep Contract Period: ☐ | Fee Value To Principal: ☐

Import Schedule: ☐

**Early Repayment Result**

Future Installments No: 7 | Future Annuity: 0

[Simulate Returned Amount Of Goods](#)

5. In the **General Data** section, fill in the **external identifier** of the transaction, if available.  
The **date for return** is pre-filled and it can't be before Activation Date and after Current Date.  
The **event value** represents value of the transaction, calculated and displayed after saving the record, based on the information filled in a series of other fields:  $\text{Event Value} = \text{Repayment Principal Amount} + \text{Commission Value} + \text{Interest To Be Returned}$ .
6. In the **Unpaid Info** section, you can only view the information about:
  - **Accrued Interest** - The interest accrued up until the event date for an early repayment contract event.
  - **Unpaid Amount On Contract** - The value of the unpaid amount still on the contract.
  - **Unpaid Amount For Customer** - The value of the unpaid amount for the customer.
7. In the **General Data** section, fill in the **Repayment Principal Amount** with the amount from the Principal that the customer wishes to return. You can only view the following information:

- **Remaining Principal At Date** - The remaining value of the principal at the current date.
  - **Returned Accrued Interest** - The returned accrued interest.
  - **Interest For Returned Amount** - The interest for the returned amount.
  - **Interest To Be Returned** - The interest to be returned with this event.
8. In the **Fees** section, you can only view the information about:
    - **Return Fee** - The transaction fee applicable for a Returned Amount or Goods transaction on this contract. See [Transaction Fees](#) for more details.
    - **Return Fee Percent** - The return fee percentage applicable for the contract, if the return fee is set up as a percentage.
    - **Return Fee Value** - The return fee value applicable for the contract.
  9. In the **Early Repayment Options** section, select the **Keep Contract Period** checkbox if Loan Management should keep the period of the contract.
  10. Select the **Fee Value To Principal** checkbox to indicate that the value of the return fee should be applied to the principal, using its value to include it in the repayment amount and diminishing the outstanding principal.
  11. In the **Early Repayment Result** section, you can only view the information about:
    - **Future Installments No** - the number of installments to be paid in the future. This depends on whether you opted to keep the contract period as it was or not.
    - **Future Annuity** - the future value of the installment as recalculated after this payment.

- **Future Principal For Installment** - the future value of the principal as recalculated after this payment.

EDIT CONTRACT EVENT

General Data

Go to contract

Unpaid Info

Go to customer

Event Date

02/09/2022

Date For Return

02/09/2022

Event Value

3,100

Accrued Interest

0

Unpaid Amount On Contract

0

Unpaid Amount For Customer

0

External Identifier

Capital

Repayment Principal Amount

3,000

Principal To Be Returned

100

Remaining Principal At Date

5,000

Returned Accrued Interest

0

Interest To Be Returned

0

Interest For Returned Amount

0

Fees

Return Fee

Return Fee EUR

Return Fee Value

100

Early Repayment Options

Keep Contract Period

☐

Fee Value To Principal

☒

Early Repayment Result

Future Installments No

4

Future Annuity

0

- Decide whether you want to use the repayment schedule calculated by Loan Management through automatic processes, or you want to import a custom schedule. For custom schedule, select the **Import Schedule** checkbox. Read more about importing a custom schedule file in the [Manually Upload Repayment Schedules](#) section of the user guide.
- Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
- Click the **Simulate Returned Amounts or Goods** button to view the details of each installment of the calculated repayment schedule.

General Data

Go to contract

Unpaid Info

Go to customer

Event Date

02/09/2022

Date For Return

02/09/2022

Event Value

3,100

Accrued Interest

0

Unpaid Amount On Contract

0

Unpaid Amount For Customer

0

External Identifier

Capital

Fees

Repayment Principal Amount

3,000

Principal To Be Returned

100

Remaining Principal At Date

5,000

Returned Accrued Interest

0

Interest To Be Returned

0

Interest For Returned Amount

0

Return Fee

Return Fee EUR

Return Fee Value

100

Early Repayment Options

Early Repayment Result

Keep Contract Period

☐

Fee Value To Principal

☒

Future Installments No

3

Future Annuity

0

Import Schedule

☐

Simulate Returned Amount Or Goods

Repayment Schedule

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR
1	02-09-2022	5,000.00	0.00	3,100.00	0.00	3,100.00	0.00
1	29-10-2022	1,900.00	22.56	613.77	10.00	646.33	0.00
2	29-11-2022	1,286.23	12.86	637.01	10.00	659.87	0.00
3	29-12-2022	649.22	6.49	649.22	10.00	665.71	0.00

- Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

CURRENT STATUS: DRAFT

NEXT STATUS: CHOOSE STATUS

Approved

Cancelled

- Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management applies the recalculated repayment schedule to the contract, displaying the previous schedule version in the **Contract Repayment Schedule Versions** section of the contract's **Payments** tab.

The transaction is visible in the **Transactions** section.

Contract Repayment Schedule

<input type="checkbox"/>	Contract	Date Schedule	Modified On
	12717	02/09/2022	01/09/2022 18:18

Contract Repayment Schedule versions

<input type="checkbox"/>	VersionNo	Versioning Reason	VersionDate	Date Schedule
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	2	Returned Amount or Goods	02/09/2022	02/09/2022
	1	Payment Holiday	02/09/2022	02/09/2022

Transactions

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10067	Disbursement	Approved	02/09/2022	5,000.00	
	ECB10068	Payment Holiday	Approved	02/09/2022		
	ECB10069	Returned Amount or Goods	Approved	02/09/2022	3,100.00	

**NOTE**

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Automatic Calculations of Value Fields

Legend:

- *RA* = Returned amount/ Returned value of the goods
- *IFRV* = Interest for remaining value after returning the amount/ returning the value of the goods
- *IFRA* = Interest for returned amount starting from return date
- *RVA* = Remaining value after returned amount/ returned value of the good
- *RVBA* = Remaining value before returned amount/ return value of the good

Principal To Be Returned = if  $RA > RVBA \Rightarrow RA - RVBA$ , else 0.

Interest To Be Returned = if  $IFRA > IFRV \Rightarrow IFRA - IFRV$ , else 0.

Interest on the first installment generated by the transaction: if  $IFRV > IFRA \Rightarrow IFRV - IFRA$ , else 0.

## Returned Amount Or Goods Event Validations

On event approval, Loan Management verifies if Event Date respects the formula:  $Activation\ Date + Accepted\ Days\ For\ Return \geq Current\ Date$ . If the formula is not respected, Loan Management returns:

- an error message, if Return Message = Error on the banking product definition;
- a warning message, if Return Message = Warning on the banking product definition;
- nothing, if Return Message = NoMessage on the banking product definition.

Loan Management also checks on event approval if the Return Fee is not greater than the sum of commissions with type Front-End Fee with Is Returnable = True on the contract level.

There is no validation of the event amount on this transaction related to balance of current account.

## After Event Validation

After event validation, Loan Management creates a new version of the contract. The contract's current account (customer casa account) is topped-up TOP Up with the Event Value = Amount + Return Fee. The return fee is added to the contract's **Fees & Commissions** section with a negative value that can't be modified.

In the Contract Repayment Schedule, Loan Management creates an installment with all columns = 0, except Principal, Remaining Value and Total Installment, with Is Early Repayment = True and Is Return = True. The Principal amount is:

- the principal amount saved on the transaction if `Fee Value To Principal = False`;
- the event amount saved on transaction if `Fee Value To Principal = True`.

Loan Management generates a notification for this installment and performs the allocation. The allocation process affects the main bank account balance as it is now, all the limits with `Is Revolving = True` and `On Repayment = True` affected by this contract, and the available amount on the contract if `Is Revolving = True` at the product level.

## Applying Fees and Commissions

The financial institutions take commissions and fees for offering a product or service such as opening an account, for cash withdrawals, for transfers, for making payments in certain countries, for exchanging currencies, for emitting debit cards, for handling documents etc. These commissions are set at the product level and vary from institution to institution, based on their policy.

In the **Fees & Commissions** section within the **Overview** tab of the contract, you can view all the fees and commissions configured at the product level that have the `Automatic Load on Contract` checkbox set to `True`. After the first saving operation, Loan Management display all the fees that are defined as values. The fees defined as percentages are displayed after completing all the values of the contract. Read more about the commissions automatically inserted and calculated in the [below section](#). You can also [add](#), delete or export fees and commissions for the contract.

### Fees & Commissions

+ Insert
✕ Delete
■ Export
🔄 Refresh

<input type="checkbox"/>	Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
<input type="checkbox"/>	BNPL SLICE 5RON	RON	24/09/2022		5.00	30Days
<input type="checkbox"/>	Slice UpFront Fee	RON	24/09/2022	0.5000	25.00	Once

## Automatic Insertion and Calculation of Commissions

Loan Management automatically inserts/ updates commissions in the **Fees & Commissions** section depending on the life cycle and status of the contract:

- **Creating a new contract:** Loan Management automatically inserts active commissions associated to the banking product, within their defined validity period, with `Automatically load on contract = True`, with `Is For Unusage = False`, and `Commission value is percentage = False`.  
If `Commission value is percentage = True`, then the commission is only inserted if the amount value was previously inserted.
- **Updating a contract in Draft status:** Loan Management automatically inserts active commissions associated to the banking product, within their defined validity period, with `Automatically load on contract = True`, with `Is For Unusage = False`. If a commission with `Commission value is percentage = True` was already inserted, then the commission's value is updated according to the contract's financed amount. If the value of a commission with `Commission value is percentage = True` was manually modified (for negotiable commissions), then the new value is calculated based on the modified percentage.
- **Creating a new version for a contract:** Loan Management automatically inserts all the commissions already present in the contract. Additionally, all commissions specifically created for contract version (`Is For Contract Version = True`) are added as well.

#### NOTE

If a version for a contract is created more than once on the same day, then all commissions with `Is For Contract Version = True` that were not notified yet for each previous version are deleted. At the end of the day, there is only one commission for the latest version.



- **Updating a contract in Contract Version Draft status:** Loan Management only updates the percentage commissions that are not already notified.

For percentage commissions (with `Commission value is percentage = True`), the financed amount of the contract is used to calculate the commission value based on the percentage. The calculation method differs depending on the contract type:

- For contracts based on **Term Loan, Mortgage** or **Overdraft** banking products:
  - If the commission is applied to amount, then the financed amount = amount due;
  - If the commission is applied to financed amount, then the financed amount = amount due - advance amount;
  - If the commission is applied to remaining value and the contract is in `Contract Version Draft` status, then financed amount =  $(-1) * \text{main bank account balance}$ . If the result is a negative value, then financed amount = null. In all the other cases, financed amount = null, which is the default value.
- For contracts based on **Bank Account with Overdraft** banking products:
  - If the commission is applied to overdraft limit amount, then the financed amount = overdraft limit amount;
  - If the commission is applied to used amount and the commission's period type is `Once`, then the financed amount = overdraft limit amount - available amount for overdraft. In all the other cases, financed amount = null, which is the default value.

## Adding Fees

1. To add a fee for this contract, click **Insert** in the **Fees & Commissions** section of a contract in `Draft` or `Version Draft` status.
2. On the newly displayed **Contract Fee** page, fill in the following fields:

Contract Fee

Contract	12621	Currency	RON
Fee	Slice UpFront Fee	Periodicity Type	Once
Fee Date	23/08/2022	Value Fee	25
Percent Fee	0.5		

- **Fee** - Select a commission from the list of commissions defined for the banking product used when creating the contract.
  - **Fee Date** - Specify which value of the commission is to be used by selecting the date of the commission.
- Optionally, check the rest of the fields, automatically filled in by Loan Management: contract number, currency, periodicity type of the selected fee, the fee percentage or value applicable for the selected date. You can't change these values.
  - Click the **Save and Close** button.

## Closing a Loan With All Obligations Met

Loan contracts with all their financial obligations met can be closed. Loan Management enables you to close these contracts automatically through scheduled jobs or manually, according to a series of settings defined at the banking product's service configuration and at the contract level.

There are cases when you might expect the loan to get closed once all amounts recovered and the loan is not revolving, or you might want such contracts to be closed after a certain number of days, allowing for possible reconciliations, or even leave them to be manually closed or with a localized job. All this is enabled from product level and, if set as negotiable, you can also change the default at contract level. You might need such settings if you work with direct debit and need to allow for the number of days the direct debit can bounce to pass before you really close the deal.

You can configure the closure settings within the product's service configuration **Closing Contract Settings** section:

## Closing Contract Settings

Buffer Close Days

Close Real Time

☐

Closing Is Flexible

☒

Contract Is Closed Automatically

☒

If allowed from the product service configuration level, you can amend the closure settings of the contract, the way Loan Management should behave once the loan is repaid and the contract can be closed. Perform these configurations in the **Closure Settings** section of the **Overview** tab, [during contract creation](#), for contracts based on banking products having the **Closing Is Flexible = True** setting:

## Closure Settings

Automatic Closure  
☒Real Time Closure  
☒

Buffer Close Days

Balance Off Date

Closure Date

Depending on the real time closure setting, Loan Management uses the one following scheduled jobs to close the contracts automatically:

- **Close Contracts (CB) Job** - this job closes automatically all contracts with Automatic Closure = True and Real Time Closure = False, with zero available amount and with no further amounts to be recovered, that have Balance Off Date filled in and Closure Date = Current Date.
- **Close Contracts RealTime(CB) Job** - this job closes automatically all contracts with Automatic Closure = True and Real Time Closure = True, with zero available amount and with no further amounts to be recovered.

You can see the list of contracts that are ready to be closed in the **Closure of Contracts** report:

CLOSURE OF CONTRACTS								
<input type="button" value="Refresh"/>		<input type="button" value="Export"/>						
<input type="checkbox"/>	ContractNo	Customer	Product	Currency	Amount	Balance Off Date	Closure Date	Maturity Date
	Q	Q	Q	Q	Q	Q	Q	Q
	7961		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7956		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7941		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7934		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7918		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
5 10 20		1 2 3 4 5 6						

You can also use the [GetClosureOfContracts](#) endpoint to fetch the same information within your own API integration.

## Manually Closing a Contract

If you opted to close a contract with all the obligations met manually, and not automatically, then follow these steps:

1. Double-click an approved contract with zero amounts to be recovered, opening it for editing.
2. Change the contract's **Next Status** into **Closed**.

The screenshot shows the 'Contract Details' form in the Loan Management system. At the top, the 'CURRENT STATUS' is 'Approved' and the 'NEXT STATUS' is 'Closed'. The contract details include:

- Contract ID:** 12606
- Activation Date:** 23/08/2022
- Created By:** [User]
- Version:** 1
- Version Date:** 18/08/2022 03:00
- Contract Category:** Normal

The 'General Data' section contains the following fields:

- Contract ID:** [Text field]
- Customer:** [Text field]
- Banking Product:** [Text field]
- Currency:** EUR
- Activation Date:** 23/08/2022
- Main Bank Account:** FIN000007810
- Current Account:** FIN000007794
- Destination Bank Account:** [Text field]
- Amount:** 12,000
- Advance Amount Percentage:** 8.33
- Advance Amount Value:** 1,000
- Available Amount:** 0
- Start Calculation Date For Amount Unused:** 23/08/2022
- Maximum Disburse Date:** 22/07/2023
- Managing Branch:** root
- Auto disbursement:** ☒
- Direct Debit Settlement Account:** ☒
- Sales Channel:** Assisted Contract

If Loan Management performs all the validations and finds that the financial obligations are met and there are no more amount to be recovered, then the contract's status becomes **Closed**. You can't perform any other operations on this contract.

This screenshot is identical to the previous one, but the 'CURRENT STATUS' is now 'Closed' and the 'NEXT STATUS' is also 'Closed'. The contract details and general data remain the same.

Any existing versions of the contract are also automatically closed, as

you can see in the **History** tab.

Name	Label	Attribute Version Date	Attribute Version	Modified by user
12606.2	Contract Version Closed	05/09/2022 13:44	2	
12606	Closed	18/08/2022 03:00	1	

## Rescheduling and Refinancing Loans

Loan Management allows you to reschedule the overdue amounts of a loan contract, or to perform an early repayment of the due amounts, effectively refinancing the loan. This page covers the steps you must follow when performing these transactions on a loan contract.

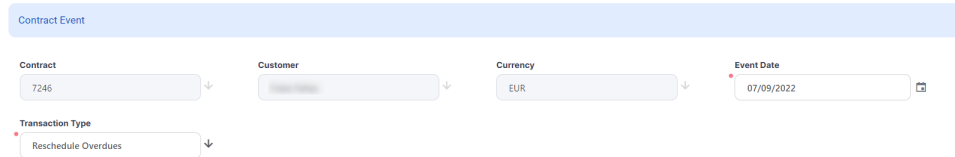
### Rescheduling the Overdue Amounts for a Contract

A reschedule overdues transaction represents an operation where overdue installments are merged to the following installments, turning the remaining amounts on the notifications into capital, and they are no longer collecting penalties. Loan Management also recalculates the repayments schedule.

You can add reschedule overdues transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a reschedule overdues transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status with notified overdue amounts and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.



3. Fill in the following fields:
  - **Event Date** - This is pre-filled with current date.
  - **Transaction Type** - Select from the list the **Reschedule Overdues** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed.

CURRENT STATUS

Draft

NEXT STEPS

Choose status

CUSTOMER

CONTRACT NUMBER

TRANSACTION NUMBER

TRANSACTION TYPE

CURRENCY

7246

ECB10071

Reschedule Overdues

EUR

EDIT CONTRACT EVENT

General Data

Go to contract

Fees and Options

Go to customer

Event Date

Event Value

External Identifier

Keep Contract Period

Charge Fee

Fee For Repayment

Repayment Fee Percent

07/09/2022

☐

Import Schedule

Schedule File

Add file

or Drop file here

Export Schedule Template

Simulate Reschedule Overdues

Run Import Schedule

Export

Refresh

Export

Refresh

No data

- Fill in the **external identifier** of the transaction, if available.
- Decide whether to keep the period of the contract or recalculate it. Select the **Keep Contract Period** checkbox to keep the period.
- View the transaction fee applicable for the transaction, if it was defined, displayed in the **Charge Fee** field.
- View the **fee for repayment** or the **repayment fee percent**, depending on which is displayed. The fee value or the percentage are pre-filled by Loan Management according to the **Charge Fee** defined for this transaction type. Depending on the ManualRepaymentFeeLoan Management system parameter's value, the system may allow you to change the fee or the percentage. See [Transaction Fees](#) for more details.
- Decide whether you want to use the repayment schedule calculated by Loan Management through automatic processes, or you want to import a custom schedule. For custom schedule, select the **Import Schedule**

checkbox. Read more about importing a custom schedule file in the [Manually Upload Repayment Schedules](#) section of the user guide.

10. Select from the **Notifications** list the overdue payment notifications that you wish to reschedule.

Notifications

[Export](#) [Refresh](#)

<input type="checkbox"/>	Name	CustomerId	Notification Date	Currency	Total Amount	Remaining Value	Maturity Date	Selected for Resched...
<input type="checkbox"/>	43850		24/06/2022	EUR	733.33	733.33	24/06/2022	<input checked="" type="checkbox"/>
<input type="checkbox"/>	44528		24/07/2022	EUR	733.33	733.33	24/07/2022	<input checked="" type="checkbox"/>
<input type="checkbox"/>	53364		24/08/2022	EUR	733.33	733.33	24/08/2022	<input checked="" type="checkbox"/>

11. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
12. Click the **Simulate Reschedule Overdues** button to view the details of each installment of the calculated repayment schedule.
13. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

CURRENT STATUS: DRAFT

NEXT STATUS: CHOOSE STATUS

Approved

Cancelled

14. Confirm the change of status in the **Confirmation** window, clicking **Yes**.  
The event is now in **Approved** status and Loan Management applies the recalculated repayment schedule to the contract, displaying the previous schedule version in the **Contract Repayment Schedule Versions** section of the contract's **Payments** tab.  
The transaction becomes visible in the **Transactions** section.



**NOTE**

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Refinancing a Loan By Performing an Early Repayment

An early repayment transaction represents the early return of funds previously borrowed from a lender. Loan Management also recalculates the repayments schedule. Early repayments can result in a decrease of term while keeping the monthly installment, or a decrease of installment amount while keeping the term. You can also perform early repayments with the collection of interest accrued to date or leaving it until the next regular due date. When you insert the early repayment principal amount, make sure that you also have available funds for the interest accrued to date in case you want to collect it, as well as any transactional fee, for cases when you have an early repayment fee.

**NOTE**

Various activities can be orchestrated according to the internal procedures of the financial institution. If the refinancing takes place in another bank, then it's possible that the amounts are released only after the proof of closing the other loan. Some financial institutions may refinance Principal + Costs, others only Principal and so the customer must cover from their own funds the interests and potential fees.

All these must be orchestrated during the implementation process, before actually starting to use Loan Management, if they must be automated, otherwise they can be implemented as internal procedures.

You can add early repayment transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add an early repayment transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status, already disbursed, and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

3. Fill in the following fields:
  - **Event Date** - This is pre-filled with current date.
  - **Transaction Type** - Select from the list the **Early Repayment** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. A series of value fields are automatically calculated, their values are displayed, and you can't edit them: the contract's unpaid information such as accrued interest, unpaid amount on contract or on customer, interest value for capital, remaining principal at date, future installments number and future annuity.

**EDIT CONTRACT EVENT**

**General Data** [Go to contract](#)

Event Date: 06/10/2022 | Event Value: 1,018.5 | External Identifier:

**Capital**

Repayment Principal Amount: 1,000 | Interest Value: 405.72 | Remaining Principal At Date: 98,933.33

**Early Repayment Options**

Keep Contract Period: ☐ | Collect Accrued Interest: ☐ | Import Schedule: ☐

**Unpaid Info** [Go to customer](#)

Accrued Interest: 405.72 | Unpaid Amount On Contract: 0 | Unpaid Amount For Customer: 5,114.22

**Fees**

Charge Fee: RepaymentFee EUR  | Fee For Repayment: 18.5 | Other Fees Total Value: 0

**Early Repayment Result**

Future Installments No: 93 | Future Annuity: 1,400

[Simulate Early Repayment](#)

5. Fill in the **external identifier** of the transaction, if available.
6. View the **interest accrued** up until the event date, the **unpaid amount on the contract** , and the **unpaid amount for the customer**. The values are pre-filled by Loan Management and you can't change them.
7. Edit the principal amount to be repaid with this event, in the **Repayment Principal Amount** field.
8. View the **interest value** applicable to the payment and the **remaining value of the principal** at the current date, as calculated by Loan Management.
9. View the transaction fee applicable for the transaction, if it was defined, displayed in the **Charge Fee** field.
10. View the **fee for repayment** or the **repayment fee percent**, depending on which is displayed. The fee value or the percentage are pre-filled by Loan Management according to the **Charge Fee** defined for this transaction type. Depending on the ManualRepaymentFeeLoan Management system parameter's value, the system may allow you to change the fee or the percentage. See [Transaction Fees](#) for more details.
11. View the **total value of other fees** applicable for the transaction, if any.
12. Set the early repayment options:

- **Keep Contract Period** - Select this checkbox to instruct Loan Management to keep the period of the contract. If left unselected, the contract period is recalculated.
- **Collect accrued interest** - Select this checkbox to instruct Loan Management to collect the interest accrued up to date. If the checkbox is not selected, then the Accrued Interest = 0.00, if it's selected, then Accrued Interest = the value of accrued interest until the event's date. The payment schedule projection takes into consideration both the payment schedule type defined at the banking product level, and whether to collect the interest accrued on the contract until the date of an early repayment event, thus repaying the accrued interest, or not, thus adding the accrued interest to the next installment due after the early repayment event.

The [CalculateAccrualEarlyRepayment](#) Loan Management system parameter specifies whether the accrual and provision should be calculated for early repayments with the event value equal to a part of contract's unpaid amount (partial early repayments) or only for full early repayments.

- **Accrued interest** - View the interest accrued up until the event date, as calculated by Loan Management.

EDIT CONTRACT EVENT

General Data

Go to contract

Event Date

06/10/2022

Event Value

1,424.22

External Identifier

Unpaid Info

Go to customer

Accrued Interest

405.72

Unpaid Amount On Contract

0

Unpaid Amount For Customer

5,114.22

Capital

Repayment Principal Amount

1,000

Interest Value

405.72

Remaining Principal At Date

98,933.33

Fees

Charge Fee

RepaymentFee EUR

Fee For Repayment

18.5

Other Fees Total Value

0

Early Repayment Options

Keep Contract Period

☒

Collect Accrued Interest

☒

Import Schedule

☐

Early Repayment Result

Future Installments No

11

Future Annuity

9,257.58

Simulate Early Repayment

13. View the early repayment results, with the **number of installments** to be paid in the future, and either the future value of the installment as recalculated after this payment in the **Future Annuity** field, or the future value of the principal in the **Future Principal For Installment** field.

CONTRACTS

372

14. Decide whether you want to use the repayment schedule calculated by Loan Management through automatic processes, or you want to import a custom schedule. For custom schedule, select the **Import Schedule** checkbox. Read more about importing a custom schedule file in the [Manually Upload Repayment Schedules](#) section of the user guide.
15. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
16. Click the **Simulate Early Repayment** button to view the details of each installment of the calculated repayment schedule.

Contract Repayment Schedule

Date Schedule  
29/08/2022

Print Schedule

Contract  
12714

Schedule File

Customer

## Contract Repayment Schedule Details

*Schedule before Early Repayment*

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif No.
1	15-09-2022	100,000.00	333.33	1,066.67	10.00	1,410.00	0.00	70125
2	17-10-2022	98,933.33	618.33	781.67	10.00	1,410.00	0.00	
3	15-11-2022	98,151.66	613.45	786.55	10.00	1,410.00	0.00	
4	15-12-2022	97,365.11	608.53	791.47	10.00	1,410.00	0.00	
5	16-01-2023	96,573.64	603.59	796.41	10.00	1,410.00	0.00	
6	15-02-2023	95,777.23	598.61	801.39	10.00	1,410.00	0.00	
7	15-03-2023	94,975.84	593.60	806.40	10.00	1,410.00	0.00	
8	17-04-2023	94,169.44	588.56	811.44	10.00	1,410.00	0.00	
9	15-05-2023	93,358.00	583.49	816.51	10.00	1,410.00	0.00	
10	15-06-2023	92,541.49	578.38	821.62	10.00	1,410.00	0.00	
11	17-07-2023	91,719.87	573.25	826.75	10.00	1,410.00	0.00	
12	15-08-2023	90,893.12	568.08	831.92	10.00	1,410.00	0.00	

## EDIT CONTRACT EVENT

General Data

Go to contract

Unpaid Info

Go to customer

Event Date  
06/10/2022

Event Value  
1,424.22

External Identifier

Accrued Interest  
405.72

Unpaid Amount On Contract  
0

Unpaid Amount For Customer  
5,114.22

Capital

Fees

Repayment Principal Amount  
1,000

Interest Value  
405.72

Remaining Principal At Date  
98,933.33

Charge Fee  
Repayment Fee EUR

Fee For Repayment  
18.5

Other Fees Total Value  
0

Early Repayment Options

Early Repayment Result

Keep Contract Period  
☒

Collect Accrued Interest  
☒

Future Installments No  
12

Future Annuity  
9,257.58

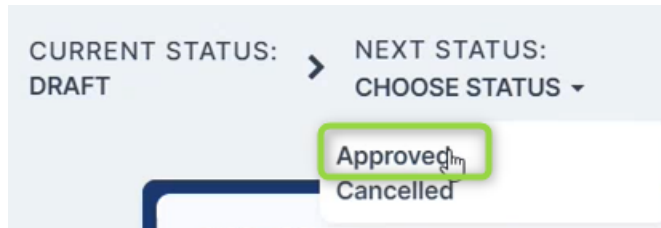
Import Schedule  
☐

Simulate Early Repayment

Repayment Schedule

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR
1	15-09-2022	100,000.00	333.33	1,066.67	10.00	1,410.00	0.00
2	06-10-2022	98,933.33	405.72	1,000.00	0.00	1,405.72	0.00
2	17-10-2022	97,933.33	183.63	9,073.96	10.00	9,267.59	0.00
3	15-11-2022	88,859.37	555.37	8,702.21	10.00	9,267.58	0.00
4	15-12-2022	80,137.16	500.98	8,756.60	10.00	9,267.58	0.00
5	16-01-2023	71,400.56	446.25	8,811.33	10.00	9,267.58	0.00
6	15-02-2023	62,589.23	391.18	8,866.40	10.00	9,267.58	0.00
7	15-03-2023	53,722.83	335.77	8,921.81	10.00	9,267.58	0.00
8	17-04-2023	44,801.02	280.01	8,977.57	10.00	9,267.58	0.00

17. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.



18. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management applies the recalculated repayment schedule to the contract, displaying the previous schedule version in the **Contract Repayment Schedule Versions** section of the contract's **Payments** tab.

The transaction is visible in the **Transactions** section.

1 Overview
2 Payments
3 Contracts & Documents
4 History
5 Accounting Entries

**Contract Repayment Schedule**

<input type="checkbox"/>	Contract	Date Schedule	Modified On
<input type="checkbox"/>	12714	29/08/2022	29/08/2022 16:55

**Contract Repayment Schedule versions**

<input type="checkbox"/>	VersionNo	Versioning Reason	VersionDate	Date Schedule
<input type="checkbox"/>	1	EarlyRepayment	06/10/2022	29/08/2022

**Transactions**

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
<input type="checkbox"/>	ECB10079	Early Repayment	Approved	06/10/2022	1,424.22	
<input type="checkbox"/>	ECB10039	Disbursement	Approved	29/08/2022	100,000.00	

## NOTE

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Writing Off a Loan

A write-off is an accounting action that reduces the value of an asset while simultaneously debiting a liabilities account. It is primarily used by financial institutions seeking to account for unpaid loan obligations. The write-off is the last action taken in the attempt of recovering a non-performing loan. If there are collaterals linked to the loan, those are turned into cash to be used to recover the loan's remaining notified and unpaid amounts. Usually before writing off a loan, it passes a Doubtful loan classification at 90 days overdue, and thereafter, depending on the internal risk procedures, the financial institution can write it off or sell the loan to collection agencies. Regardless of the financial institution's decision, such a process involves a loss.

In Loan Management, the write-off functionality is intended for non-performing loans, allowing you to "delete" any or all notified overdue amounts from the loan contracts if your financial institution approves this action and assumes the loss. Using the specific settings defined at the [product service configuration level](#), the system can [automatically write off non-performing loan contracts](#), using the Process Contracts For Auto WriteOff scheduled job, after their maturity day passes and the remaining notified and unpaid value on the contract is under the specified threshold. Loan Management also allows you to [manually perform write-off transactions](#), even if the remaining notified and overdue amounts on the contract are above the defined threshold. In this case, you can perform the write-off either for a partial or the full amount.

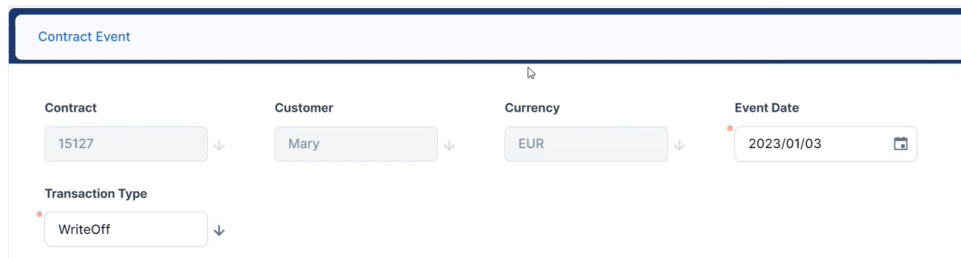
Regardless of how the write-off transaction is performed, manually or automatically, it results in taking the write-off amount from the specified internal write-off account and crediting the loan's main bank account for the loan principal, respectively the product's self bank account for all the other operation items. The [DefaultWriteOffReconciliationAccountBankingProduct](#) system parameter holds the internal write-off account defined for the system's default currency and automatically populates this field, but you can change the account according to your needs.

## Adding a Write-Off Transaction To an Approved Contract

You can add write-off transactions to an approved contract via Loan Management's user interface or through API calls using the `FTOS_CB_AddUpdateWriteOff` and `FTOS_CB_ApproveWriteOff` endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a write-off transaction to a loan contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.



The screenshot shows a web form titled "Contract Event". It contains several input fields with dropdown arrows: "Contract" (15127), "Customer" (Mary), "Currency" (EUR), and "Event Date" (2023/01/03). Below these is a "Transaction Type" field with a dropdown menu showing "WriteOff".

3. Fill in the following fields:
  - **Transaction Type** - Select from the list the **WriteOff** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.
  - **Event Date** - This is pre-filled with current date.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. The contract's maximum possible write-off value is automatically calculated and displayed. You can't edit this field.



CURRENT STATUS: DRAFT > NEXT STATUS: CHOOSE STATUS ▾

CUSTOMER: Mary

CONTRACT NUMBER: 15127

TRANSACTION NUMBER: ECB11417

TRANSACTION TYPE: WriteOff

CURRENCY: EUR

WriteOff

General Data Go to contract Write Off Go to customer

Event Date	Event Value	External Identifier	Max Write Off Value	Write Off Reason
2023/01/03			12,863.61	

- Fill in the **external identifier** of the transaction, if available.
- In the **Write Off** section, fill in the **Write Off Reason**, entering the reason for performing the write-off transaction, according to your financial institution's internal procedures.
- View the **Max Write Off Value** field, displaying the contract's maximum possible value for the write-off transaction, automatically calculated as Remaining Principal (absolute main balance) + Accrued Interest + unpaid values from Repayment Notifications (interest, commissions, penalties, or insurances).
- Adjust the actual write-off amount, displayed in the **Event Value** field, changing the values for each operation item displayed in the **Write Off Detail** section. Initially, the actual values for the write-off transaction are defaulted as zero, as pictured below:

Write Off Reason

according to app 3/2023 risk dep

Write Off Detail

<input type="checkbox"/> name	Max Value	Actual Value
Advance	1,000.00	0.00
Loan Interest	824.54	0.00
Loan Principal	11,000.00	0.00
Overdue Principal	39.07	0.00

For example, you can specify to perform a write-off transaction for the maximum values for the advance, the loan interest, and the overdue principal, leaving the loan principal unchanged:

Write Off Detail

<input type="checkbox"/> name	Max Value	Actual Value
Advance	1,000.00	1,000.00
Loan Interest	824.54	824.54
Loan Principal	11,000.00	0.00
Overdue Principal	39.07	39.07

✓ Record updated

For each write-off detail, you can't specify a value greater than the maximum value.

The **Event Value** is automatically recalculated after changing the actual values of the operation items.

WriteOff

General Data

Event Date: 2023/01/03

Event Value: 1,863.61

Write Off

Max Write Off Value: 12,863.61

Write Off Reason: according to app 3/2023 risk dept

Go to contract

Unpaid Info

Go to customer

External Identifier

Accrued Interest

- Approve the transaction by changing its status to **Approved** in the upper left corner of the **Event** page.

CURRENT STATUS: DRAFT

NEXT STATUS: CHOOSE STATUS

Approved

Cancelled

- Confirm the change of status in the **Confirmation** window, clicking **Yes**. The transaction is now in **Approved** status, visible in the **Transactions** section.

Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
<input checked="" type="checkbox"/>	ECB11417	WriteOff	Approved	2023/01/03	1,863.61	
<input type="checkbox"/>	ECB11115	Disbursement	Approved	2022/12/09	12,000.00	

Loan Management performs the write-off transaction for each operation item's actual value. It takes the amounts from the internal write-off account defined at the product service configuration level and credits the loan's main bank account for the loan principal, respectively the product's self bank account for all the other operation items. The example below shows the debit operation performed on the write-off account:

CURRENT STATUS:  
OPENED

Main Information

Bank

Finte...

Internal Bank

Account

Currency

EUR

Bank Account

Number

Reconciliati...

Initial Balance

999,716,413...

Debit Operations

Export

Refresh

<input checked="" type="checkbox"/>	Value date	Operation date	Currency	Amount	Detail text
<input checked="" type="checkbox"/>	03/01/2023 15:12	03/01/2023 15:12	EUR	1,863.61	Write Off 15127

**NOTE**

In case of partial write-off, Loan Management performs the allocation of amounts according to the allocation method, closing the oldest unpaid values first.

The affected repayment notifications are processed. If the write-off amount covers the repayment notification's amount, then the notification's status becomes **Recovered**, otherwise it remains in the

same status, but its amount is lower. The example below shows the repayment notification containing the advance of 1000, fully recovered after performing the write-off:

CURRENT STATUS: **RECOVERED** REPAYMENT NOTIFICATION NO: 107592

Operation Item	Value	RemainingValue	Is Paid
Advance	1,000.00	0.00	<input checked="" type="checkbox"/>

Payment Allocations

Payment No.	Payment Date	Operation Item	Allocated Amount	DueDate	Delay (days)
540026	2023/01/03	Advance	1,000.00	2022/12/09	25

The contract is automatically closed after write-off as required, as long as there are no pending amounts on the contract, the loan is not revolving, and if the contract closure settings are in place.

### IMPORTANT!

Loan Management allows you to add write-off transactions to approved loan contracts that have notified and overdue amounts regardless of their [classification](#), as long as you perform a partial write-off. You could use partial write-off transactions as a method of adjusting existing repayment notifications.

## Changing the Interest Rate

During the life-cycle of a contract, there may be situations when you need to change the interest rates applicable to the contract.

**SUBMIT STATUS:** Approved

**NEXT STATUS:** Closed

CONTRACT NUMBER	ACTIVATION DATE	CREATED BY	VERSION	VERSION DATE	CONTRACT CATEGORY
12717	02/09/2022		1	29/08/2022 03:00	Normal

1 Overview    2 Payments    3 Contracts & Documents    4 History    5 Accounting Entries

### General Data

Contract ID <input type="text"/>	Customer <input type="text"/>	Banking Product Term Loan Euro	Currency EUR
Activation Date 02/09/2022	Main Bank Account FIN000007873	Current Account FIN000005702	Destination Bank Account <input type="text"/>
Amount 10,000	Advance Amount Percentage 0	Advance Amount Value 0	Available Amount 5,000
Start Calculation Date For Amount Unused 02/10/2022	Maximum Disburse Date 28/08/2023	Sales Channel Assisted Contract	Managing Branch root
Auto disbursement <input type="checkbox"/>	Direct Debit Settlement Account <input checked="" type="checkbox"/>		

### Product Interest Rate

Interest Commission Item Onboarding Loan I&C	Product Interest 7.5	Date for Review Interest Rate <input type="text"/>
---	-------------------------	---

### Contract Interest Rate

<input type="checkbox"/> Interest	Start Date	End Date	From Installm...	To installment	Minim interest...	Fixed Rate	Margin	Reference Rate	Total Interest ...	Notified	Past Unnotified
<input checked="" type="checkbox"/> 7.5	02/09/2022	29/08/2023	1	12	0.5000	7.5000	0.0000	0.0000	7.5000	<input type="checkbox"/>	<input type="checkbox"/>

### Contract Penalty Interest Rate

<input type="checkbox"/> Name	Start Date	End Date	Fixed Rate	Margin	Reference Rate	Total Interest Rate	Operation Item
Corporate Overdue Interest	02/09/2022	29/08/2023	10.0000	0.0000	0.0000	10.0000	Loan Interest
Corporate Overdue Principal	02/09/2022	29/08/2023	12.0000	0.0000	0.0000	12.0000	Loan Principal

You can do this if the interest is defined as negotiable:

Edit Interest &amp; Commission Item

Main Information

Banking Product

Term Loan Euro

Item Name

Onboarding Loan I&C

Start Date

13/03/2022

End Date

09/04/2029

Settings

Interest List

TermLoan Eur

Minimum Interest Rate

0.5

Commission List

Term Loan Eur

Is Negotiable

☒

1. To modify an approved contract's interest, you must first create a new version as described in the [dedicated](#) topic.

- In the contract with **Version Draft** status, you can change the interest rates either using another definition of interest from those listed in product setup, or modifying the fixed rate, margin, or minimum interest rate, in the **Overview** tab's **Product Interest Rate** and **Contract Interest Rate** sections.

**CURRENT STATUS:** Contract Version Draft **NEXT STATUS:** Choose status-

**CONTRACT NUMBER:** 12717.4 **ACTIVATION DATE:** 02/09/2022 **CREATED BY:** **VERSION:** 4 **VERSION DATE:** 06/09/2022 10:28 **CONTRACT CATEGORY:** Normal

1 Overview 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

**General Data**

Contract ID:

Customer:

Banking Product:

Currency:

Activation Date:

Main Bank Account:

Current Account:

Destination Bank Account:

Amount:

Advance Amount Percentage:

Advance Amount Value:

Start Calculation Date For Amount Unused:

Maximum Disburse Date:

Managing Branch:

Auto disbursement: ☐

Direct Debit Settlement Account: ☒

Sales Channel:

**Product Interest Rate**

Interest Commission Item:

Product Interest:

Date for Review Interest Rate:

**Contract Interest Rate**

+ Add Interest Rate X Delete Refresh

Interest	Start Date	End Date	From Installm...	To Installment	Minim Interest...	Fixed Rate	Margin	Reference Rate	Total Interest ...	Notified	Past Unnotified
7.5	02/09/2022	29/08/2023	1	1	0.5000	7.5000	0.0000	0.0000	7.5000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.5	02/09/2022	05/09/2022	2	2	0.5000	7.5000	0.0000	0.0000	7.5000	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Fixed 4%	02/09/2022	29/08/2023	2	12	0.5000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>

For contracts in **Version Draft** status, you can't perform any changes to the contract interest rates for notified installments or for days that have elapsed already from the current month's installment (if either the **Notified** or the **Past Unnotified** checkboxes are selected).

- Remember to recalculate the repayment schedule before approving a contract in **Version Draft** status for which you performed interest rate changes, otherwise an error prevents you from approving the contract! Navigate to the **Payments** tab -> **Contract Repayment Schedule** section and double-click the repayment schedule generated for contract version.

1 Overview 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

**Contract Repayment Schedule**

<input checked="" type="checkbox"/> Contract	Date Schedule	Modified On
<input checked="" type="checkbox"/> 12717.4	02/09/2022	06/09/2022 10:28

- On the displayed **Contract Repayment Schedule** page, click **Recalculate**. Loan Management recalculates the repayment schedule for the remaining installments, using the changed interest rates.

Contract Repayment Schedule

Date Schedule: 02/09/2022 Print Schedule

Contract: 12717.4 Customer: [REDACTED]

Import Schedule ☐

Recalculate

Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif.No.
1	02-09-2022	5,000.00	0.00	3,100.00	0.00	3,100.00	0.00	70114
1	29-10-2022	1,900.00	22.56	613.77	10.00	646.33	0.00	
2	29-11-2022	1,286.23	4.29	127.09	10.00	141.38	0.00	
3	29-12-2022	1,159.14	3.86	127.52	10.00	141.38	0.00	
4	29-01-2023	1,031.62	3.44	127.94	10.00	141.38	0.00	
5	28-02-2023	903.68	3.01	128.37	10.00	141.38	0.00	
6	29-03-2023	775.31	2.58	128.80	10.00	141.38	0.00	
7	29-04-2023	646.51	2.16	129.22	10.00	141.38	0.00	
8	29-05-2023	517.29	1.72	129.66	10.00	141.38	0.00	
9	29-06-2023	387.63	1.29	130.09	10.00	141.38	0.00	
10	29-07-2023	257.54	0.86	130.52	10.00	141.38	0.00	
11	29-08-2023	127.02	0.42	127.02	10.00	137.44	0.00	

- Click the **Save and Close** button.
- Approve the contract in **Version Draft** status, changing its status to **Approved** and then confirming your action. Thus, Loan Management applies the new recalculated repayment schedule to the contract.

CURRENT STATUS: Contract Version Draft NEXT STATUS: Choose status

CONTRACT NUMBER: 12717.4 | ACTIVATION DATE: 02/09/2022 | CREATED BY: [REDACTED] | VERSION: 4 | VERSION DATE: 06/09/2022 10:28 | CONTRACT CATEGORY: Normal

Approved Contract Version Closed 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

Contract Repayment Schedule

<input checked="" type="checkbox"/>	Contract	Date Schedule	Modified On
<input checked="" type="checkbox"/>	12717.4	02/09/2022	06/09/2022 10:51

- View the approved contract's changed interest rates in the **Overview** tab.

Current Status: Approved

Next Status: Closed

Contract Number: 12717

Activation Date: 02/09/2022

Created By: [User]

Version: 4

Version Date: 06/09/2022 10:28

Contract Category: Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

### General Data

Contract ID

Customer

Banking Product

Currency

Activation Date

Main Bank Account

Current Account

Destination Bank Account

Amount

Advance Amount Percentage

Advance Amount Value

Available Amount

Start Calculation Date For Amount Unused

Maximum Disburse Date

Managing Branch

Auto disbursement

Direct Debit Settlement Account

Sales Channel

Product Interest Rate

Contract Interest Rate

Product Interest Rate

Contract Interest Rate

	Interest	Start Date	End Date	From Instalme..	To Instalment	Minim Interest ..	Fixed Rate	Margin	Reference Rate	Total Interest ..	Notified	Past Unnotified
	7.5	02/09/2022	29/08/2023	1	1	0.5000	7.5000	0.0000	0.0000	7.5000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	7.5	02/09/2022	05/09/2022	2	2	0.5000	7.5000	0.0000	0.0000	7.5000	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Fixed 4%	02/09/2022	29/08/2023	2	12	0.5000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>

## Editing and Customizing Repayment Schedules

Once a loan approved and disbursed, you can [check the repayment schedule](#) built based on the contract's details in the **Payments** tab. You can also [view the versions](#) of the repayment schedules automatically generated by Loan Management when the schedule is recalculated due to specific contract events.

CURRENT STATUS: Approved

NEXT STATUS:

Closed

CONTRACT NUMBER

12335

ACTIVATION DATE

12/08/2022

CREATED BY

VERSION

1

VERSION DATE

12/08/2022 03:00

CONTRACT CATEGORY

Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

Contract Repayment Schedule

<input type="checkbox"/>	Contract	Date Schedule	Modified On
	12335	12/08/2022	12/08/2022 09:49

Contract Repayment Schedule versions

<input type="checkbox"/>	VersionNo	Versioning Reason	VersionDate	Date Schedule
	Q	Q	Q	Q
	2	EarlyRepayment	27/08/2022	12/08/2022
	1	EarlyRepayment	27/08/2022	12/08/2022



If you need to have a schedule to reflect a product that has a fixed rate for the first x years and moving to variable afterward, use a **Collection** interest type at product definition. When creating the contract, Loan Management automatically builds the schedule projection with the 2 different rates, while the changes in amounts to be collected are visible upfront. This is sometimes referred to as fixed to variable loan, especially valid for mortgages. Read more in the [Manage Contract Level Interest & Penalty Interest Rate](#) and in the [Applying Fees and Commissions](#) sections.

Edit Interest

**Main Information**

Code: COLL

Name: Interest Collection Fixed and Variable

**Interest Special Settings**

Is For Overdraft: ☐

Is Credit Line Interest: ☐

Is Debit Order Interest: ☐

For Slight Deposit: ☐

**Interest Type Settings**

Interest Type: Collection

**Interest Rates Collections**

+ Insert - Delete Export Refresh

Interest	Collection Item Start Date	Collection Item End Date	Start Period (Installment No)	End Period (Installment No)
Fixed 4%	01/06/2022	31/12/2099	1	12
Corporate Floating Bib...	01/06/2022	31/12/2099	13	120

Product Interest Rate

Interest Commission Item

TL\_INTCOLL\_MIN\_3

Product Interest

Interest Collection Fixed and Varia...

Date for Review Interest Rate

Contract Interest Rate

Interest	Start Date	End Date	From Install...	To Installment	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Notified	Past Unnotifi...
Fixed 4%	29/08/2022	15/08/2024	1	12	3.0000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>
Corporate Flos...	29/08/2022	15/08/2024	13	24	3.0000	0.0000	6.0000	1.2600	7.2600	<input type="checkbox"/>	<input type="checkbox"/>

Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif No.
1	15-09-2022	85,000.00	151.11	3,534.29	10.00	3,695.40	0.00	
2	15-10-2022	81,465.71	271.55	3,413.85	10.00	3,695.40	0.00	
3	15-11-2022	78,051.86	260.17	3,425.23	10.00	3,695.40	0.00	
4	15-12-2022	74,626.63	248.76	3,436.64	10.00	3,695.40	0.00	
5	15-01-2023	71,189.99	237.30	3,448.10	10.00	3,695.40	0.00	
6	15-02-2023	67,741.89	225.81	3,459.59	10.00	3,695.40	0.00	
7	15-03-2023	64,282.30	214.27	3,471.13	10.00	3,695.40	0.00	
8	15-04-2023	60,811.17	202.70	3,482.70	10.00	3,695.40	0.00	
9	15-05-2023	57,328.47	191.09	3,494.31	10.00	3,695.40	0.00	
10	15-06-2023	53,834.16	179.45	3,505.95	10.00	3,695.40	0.00	
11	15-07-2023	50,328.21	167.76	3,517.64	10.00	3,695.40	0.00	
12	15-08-2023	46,810.57	156.04	3,529.36	10.00	3,695.40	0.00	
13	15-09-2023	43,281.21	261.85	3,477.80	10.00	3,749.65	0.00	
14	15-10-2023	39,803.41	240.81	3,498.84	10.00	3,749.65	0.00	
15	15-11-2023	36,304.57	219.64	3,520.01	10.00	3,749.65	0.00	
16	15-12-2023	32,784.56	198.35	3,541.30	10.00	3,749.65	0.00	

When you need to collect amounts during the life of the loan, but also leave a balloon (residual) payment, you can use the functionality enabled via the **Is Manual Value** option on the contract, if **Installment Value Custom** is set on the schedule type definition used within the product. With **Is Manual Value** set to True, you can edit the repayment amount in the **Initial Royalty** or **Initial Principal Value** field and provide a lower value, thus any capital not made due until maturity results in a balloon payment. In practice, you can also manage in this way fixed to variable loans where the business is to fix the mortgage for the x years, and you are expected either to close by the time it moves to variable, or re-fix again. Read more about setting the repayment information on contract level in the [Enter Repayment Information for the Contract](#) section.

←

CURRENT STATUS: ACTIVE

→

NEXT STATUS: CHOOSE STATUS -

📄

✓

Save and reload

Edit Schedule Type Definition

Main Information

Payment schedule code

EIM360

Name

Equal Installment Monthly 360

Banking Product Type

Secured Loan

Interest Calculation Type

30/360

Measurement Unit

Months

Is With Equal Installments

☒

Installment Value Custom

☒

Use Fix Maturity Date

☐

Repayment Overview

Schedule Type

Equal Installment Monthly 360

Contract Period

12

Contract Period Type

Months

MaturityDate

15/08/2023

Due Day

15

Periodicity Type

Monthly

Installment Method

Next Period

FirstDueDate

15/09/2022

Initial Royalty

1,400

Number of installments

12

Principal Grace Period (Months)

0

Repayment at end of month

☐

Is Manual Value

☒

Contract Repayment Schedule Details

A revolving line of credit might be a case where you need to enable a loan for which you collect interest and potentially some fees monthly, at end of month, and the principal at maturity. Such loan would also be a revolving one. This sort of setup can be achieved with a schedule definition that includes the fee. On the contract, you

select the due date as end of month, plus a grace for principal for the number of installments of the full loan minus one, for example the loan has 13 installments, the **Principal Grace Period (Months)** has 12 installments, and thus all principal is expected to be repaid on maturity. When the funds are available, you can perform an early repayment transaction and reuse those funds again when needed since it is a revolving setup. In practice, such approvals may be extended and if this is the case you need to make sure you perform the extension one day in advance of the maturity, otherwise the jobs set at the end of the day also pick up and process such maturity. Read more about setting the repayment information on contract level in the [Enter Repayment Information for the Contract](#) section.

## Repayment Overview

<b>Schedule Type</b> Equal Installment Monthly 360	<b>Contract Period</b> 12	<b>Contract Period Type</b> Months	<b>MaturityDate</b> 31/08/2023
<b>Due Day</b> 31	<b>Periodicity Type</b> Monthly	<b>Installment Method</b> Actual Period	<b>FirstDueDate</b> 31/08/2022
<b>Initial Royalty</b> 12,000	<b>Number of installments</b> 13	<b>Principal Grace Period (Months)</b> 12	
<b>Repayment at end of month</b> <input checked="" type="checkbox"/>	<b>Is Manual Value</b> <input type="checkbox"/>		

## Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif.No.
1	31-08-2022	12,000.00	2.50	0.00	10.00	12.50	0.00	
2	30-09-2022	12,000.00	75.00	0.00	10.00	85.00	0.00	
3	31-10-2022	12,000.00	75.00	0.00	10.00	85.00	0.00	
4	30-11-2022	12,000.00	75.00	0.00	10.00	85.00	0.00	
5	02-01-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
6	31-01-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
7	28-02-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
8	31-03-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
9	01-05-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
10	31-05-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
11	30-06-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
12	31-07-2023	12,000.00	75.00	0.00	10.00	85.00	0.00	
13	31-08-2023	12,000.00	75.00	12,000.00	10.00	12,085.00	0.00	

Below is an example of an out-of-the-box setting for a repayment schedule setup, to obtain the same approach with full capital repaid on maturity. Make sure you have Once for **Principal** definition, as pictured here:

←

CURRENT STATUS: ACTIVE

→

NEXT STATUS: CHOOSE STATUS

📄

✓

Save and reload

Business Transaction

Edit Schedule Type Definition

Main Information

Payment schedule code

Name

Banking Product Type

Interest Calculation Type

Measurement Unit

Revolving

Revolving Line of Credit

Unsecured Loan

Actual/Actual

Months

Is With Equal Installments

Installment Value Custom

Use Fix Maturity Date

☐

☐

☒

Payment Schedule Type Details

Export Refresh

☐ Column Repayment Schedule

Title

Calculation Method

Fee

Insurance class

Source

Display

(All)

RemainingValue

RemainingValue

RemainingFormula

☒

Interest

Interest

Effective Rate

☒

Principal

Principal

Once

☒

TotalInstallment

TotalInstallment

ColumnFormula

☒

Repayment Overview

Schedule Type

Contract Period

Contract Period Type

MaturityDate

Revolving Line of Credit

10

Months

31/05/2023

Due Day

Periodicity Type

Installment Method

FirstDueDate

Monthly

Actual Period

31/08/2022

Number of installments

10

Repayment at end of month

Is Manual Value

Initial Principal Value

☒

☐

10,000

Apart from the standardized regular repayment schedules, there may be cases when for a specific customer or for a specific business area you need custom repayment frequencies or even amounts. For such cases, you can [manually upload a repayment schedule](#) from an excel template. There are some validations and transformation requirements, but at the end you have a repayment schedule that does not follow any of the classical definitions.

## Calculation Algorithm of a Repayment Schedule with Equal Installments

Loan Management can use a series of methods to calculate the repayment schedule. For example, it uses the following mathematical formula to generate equal monthly installments:

where:

...

Depending on other definitions within the banking product, Loan Management uses business logic to factor in the instructed number of days between the installments' due dates, as defined in the repayment schedule's **Interest Calculation Type**: 30/360, 30/365, Actual/360, etc. These elements, together with the amount, interest rate, and period, lead to the equal installments.

For instance, for Actual/Actual, the installment is calculated as a recursive calculation to equalize the payment flow and result in equal installments, although the interest amount is calculated based on the exact number of days between two installments and within a year. In this case, Loan Management uses the same formula, but with an adjusted (actual) number of days:

## Viewing a Contract's Repayment Schedule

Follow these steps to view the repayment schedule automatically generated by Loan Management for the approved contract, after performing a disbursement:

1. In the contract's **Payments** tab, go to the **Contract Repayment Schedule** section. This section displays only basic information about the generated schedule, such as contract number, schedule date and last modification date and time.

Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12335	12/08/2022	12/08/2022 09:49

2. To see detailed information and the actual list of the installments, double-click the schedule. The **Contract Repayment Schedule** page is displayed with the selected schedule and a list with every schedule detail:

Contract Repayment Schedule

Date Schedule

12/08/2022

Print Schedule

Contract

12335

Customer

Vincenza Bradtke

Schedule File

Contract Repayment Schedule Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif No.
0	12-08-2022	10,000.00	0.00	1,200.00	0.00	1,200.00	0.00	68655
1	27-08-2022	8,800.00	17.70	4,000.00	0.00	4,017.70	0.00	68660
1	27-08-2022	4,800.00	0.00	4,800.00	0.00	4,800.00	0.00	68661

You can't edit the information displayed on this page, but for contracts in **Version Draft** status, you can [import a custom repayment plan](#), if you don't want the contract to use the repayment plan automatically generated by Loan Management.

**NOTE** Following an early repayment event, for contracts based on banking products with the **Is Revolving** field set to False, when the installments number recalculated after such an event is lower than the previous installments number, the maturity date and the contract period are updated along with the number of installments.

- View the information displayed about each schedule detail (installment): number, due date of the installment, interest, principal and commissions calculated for this installment, the value of the repayment notification generated for this schedule detail, and its number, if the repayment notification was already generated.

Within the list, the schedule details are color coded as follows:

- Schedule details **highlighted in blue** are already paid, allocated or closed to payment.
- Schedule details not highlighted (displayed on a white background) remain to be paid.

- To export the schedule in a .pdf file, click the **Print Schedule** button. Your browser automatically downloads the PaymentScheduleFile file, with all the information displayed within the **Contract Repayment Schedule** page.

## Viewing a Contract's Repayment Schedule Versions

Follow these steps to view the versions of the repayment schedules automatically generated by Loan Management each time when a contract event that changed either the maturity date or the amount of a repayment was performed on the contract:

- In the contract's **Payments** tab, go to the **Contract Repayment Schedule Versions** section. The section displays only basic information about the generated versions, such as version number, versioning reason, version creation date and the date of the previously active schedule.

Contract Repayment Schedule versions

<input type="checkbox"/>	VersionNo	Versioning Reason	VersionDate	Date Schedule
Q	Q	Q	Q	Q
	2	EarlyRepayment	27/08/2022	12/08/2022
	1	EarlyRepayment	27/08/2022	12/08/2022

### NOTE

The most recent repayment schedule version is considered active by Loan Management, while the previous schedule records are kept for historical purposes.

- To see detailed information about the repayment schedule version, double-click on the desired record. The **Edit Contract Repayment Schedule Version** page is displayed with the selected schedule and a list with every schedule detail:

EDIT CONTRACT REPAYMENT SCHEDULE VERSIONS

VersionNo

2

Versioning Reason

EarlyRepayment

Contract

12335

Date Schedule

12/08/2022

VersionDate

27/08/2022

Customer

Contract Event

ECB9767

ScheduleType

Equal Installment Monthly 360

Version's Details

No.	Due Date	Remaining Value	Interest	Principal	Commission	Total Installment	IRR	Notif.No.
0	12-08-2022	10,000.00	0.00	1,200.00	0.00	1,200.00	0.00	68655
1	27-08-2022	8,800.00	17.70	4,000.00	0.00	4,017.70	0.00	68660
1	12-09-2022	4,800.00	10.00	400.06	100.00	510.06	0.00	
2	12-10-2022	4,399.94	18.33	391.73	100.00	510.06	0.00	
3	12-11-2022	4,008.21	16.70	393.36	100.00	510.06	0.00	
4	12-12-2022	3,614.85	15.06	395.00	100.00	510.06	0.00	

You can't edit the information displayed on this page.

- View the information displayed about each schedule version: its number and date, the versioning reason specifying the type of contract event that triggered the generation of the version, the customer, contract and event information, as well as the date of the previous repayment schedule and the type of schedule selected in the contract and used to generate the repayment schedule.
- View the information displayed about each schedule detail (installment): number, due date of the installment, remaining value to be repaid from the contract value at the moment of this installment, interest, principal and commissions calculated for this installment, the value of the repayment notification generated for this schedule detail, and its number, if the repayment notification was already generated.

## Manually Upload Repayment Schedules

To accommodate cases when a contract's repayment plan can't be built using any of the existing Loan Management automated logic, you can import a custom-built schedule on a contract. You can either perform the import at a [contract event](#) level (when adding a **Disbursement**, **Early Repayment**, **Payment Holiday**, or **Reschedule Overdues** transaction), or at a [contract](#) level within the **Contract Repayment Schedule** page, for contracts in **Version Draft** status. After importing a custom repayment plan on a contract through



a .xlsx file whose **template** must be first exported, Loan Management **validates** that the total outstanding amount is matched by the principal on schedule. On due dates, the due amounts are processed properly and the notifications are generated as per the imported repayment plan.

For example, you could use such imported schedules for contracts that require seasonal repayment plans. For seasonal credits in agriculture, you could have due dates only in April or September. You could build a schedule to have installments only in these months, to accommodate such situations.

Another example is that you could use the import functionality for contracts with atypical schedules that have to be migrated into Loan Management. First, you could import the schedules as they are, then you could decide to adopt the Loan Management logic for schedule calculation, maybe change the interest rate, so you version the contract to have a repayment plan automatically calculated by the system.

#### **IMPORTANT!**

After importing a repayment plan on a contract in **Version Draft** status, the Auto disbursement field on that contract version is automatically set to **False** and any future contract events must have imported repayment plans!

## Importing Repayment Plans at Contract Event Level

To import a custom repayment plan at a contract event level (when performing a transaction), for contract events in **Approved** status, perform the following steps:

1. On the **Contracts** page or in the **Contracts Dashboard**, select a contract with **Approved** status.
2. Double-click the contract to open it for editing.
3. Navigate to the contract's **Payments** tab.

4. Double-click a **Disbursement, Early Repayment, Payment Holiday, Returned Amount Or Goods, or Reschedule Overdues** transaction in **Draft** status.

OR

Create a new **Disbursement, Early Repayment, Payment Holiday, Returned Amount Or Goods, or Reschedule Overdues** transaction, up until saving the event in **Draft** status.

5. Select the **Import Schedule** checkbox. The **Schedule File** field is displayed, with the **Select file** button. The **Export Schedule Template** button is also displayed. A warning message informs you that "*The previous repayment schedule was generated by the system*".

6. Click the **Export Schedule Template** button to download a .xlsx file with the schedule template for this specific contract.
7. Open the downloaded schedule template .xlsx file exported from Loan Management and make it editable.
8. Format the **Due Date** column as Text

9. Fill in the lines of the template file with the data needed in the contract's custom repayment plan.

Fill in each installment's type according to the event type.

**NOTE** Make sure you don't change the data formats within the columns, except for the **Due Date** column which needs to be Text. Do not change the headings. Validations are performed for the file after uploading it to Loan Management, when the record is saved, and incorrect formats or data are not accepted, then error messages are shown for such files.

**IMPORTANT!** For contracts with existing repayment notifications, these notifications are already present in the downloaded template file. Do not modify the existing notifications' data. Compose your custom schedule taking into account the already existing repayment notifications.

Read more about the repayment plan template file and how to fill it in its [dedicated section](#).

10. Save the file. If the file needs to be labeled according to your company's information protection policy, label it as **Public**, otherwise, Loan Management can't import it.
11. Back in Loan Management's **Contract Repayment Schedule** page, click **Select File**.

12. In the newly displayed Explorer window, browse for the .xlsx file that contains the custom schedule you've filled in with the contract's repayment plan, then click **Open**. The selected file's name is displayed under the **Schedule File** field.

13. Click the **Save and Reload** button. Loan Management performs the validations, making sure that the uploaded file meets all the criteria for a correct, functional schedule.
14. Click the **Run Import Schedule** button to perform the import of the new custom schedule to the contract. This button can be clicked only if a file was selected in the **Schedule File** field. The **Contract Repayment Schedule Details** section now displays data contained in your custom schedule.

No.	Due Date	Remaining Value	PMT	Interest	Principal	Commission	Total Installment
1	04-02-2022	1,300.00	128.41	3.25	122.16	10.00	135.41
2	04-03-2022	1,377.84	128.41	5.12	122.67	10.00	138.41
3	04-04-2022	1,255.17	128.41	5.23	123.18	10.00	138.41
4	04-05-2022	1,131.99	128.41	4.72	123.69	10.00	138.41
5	04-06-2022	1,008.30	128.41	4.20	124.21	10.00	138.41
6	04-07-2022	884.09	128.41	3.68	124.73	10.00	138.41
7	04-08-2022	759.36	128.41	3.16	125.25	10.00	138.41
8	04-09-2022	634.11	128.41	2.64	125.77	10.00	138.41
9	04-10-2022	508.34	128.41	2.12	126.29	10.00	138.41
10	04-11-2022	382.05	128.41	1.59	126.82	10.00	138.41

If you click the **Run Import Schedule** button one more time, the values within the **Contract Repayment Schedule Details** section are deleted and reinserted.

15. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page. The contract's repayment schedule, accessible through the Contract Repayment Schedule page, now displays the custom repayment plan uploaded through the approved event.

Contract Repayment Schedule

Date Schedule

04/01/2022

Print Schedule

Contract

4654

Customer

Ping

CONTRACT REPAYMENT SCHEDULE DETAILS

No.	Due Date	Remaining Value	PMT	Interest	Principal	Commission	Total Installment	Notif No.
1	04-02-2022	1,500.00	128.41	3.25	122.16	10.00	135.41	
2	04-03-2022	1,377.84	128.41	5.74	122.67	10.00	138.41	
3	04-04-2022	1,255.17	128.41	5.23	123.18	10.00	138.41	
4	04-05-2022	1,131.99	128.41	4.72	123.69	10.00	138.41	
5	04-06-2022	1,008.30	128.41	4.20	124.21	10.00	138.41	
6	04-07-2022	884.09	128.41	3.68	124.73	10.00	138.41	
7	04-08-2022	759.36	128.41	3.16	125.25	10.00	138.41	
8	04-09-2022	634.11	128.41	2.64	125.77	10.00	138.41	
9	04-10-2022	508.34	128.41	2.12	126.29	10.00	138.41	

**NOTE**

When versioning a contract that has an imported repayment plan, the schedule recalculation is not mandatory. You can choose between recalculating and importing an updated repayment plan.

## Importing Repayment Plans at Contract Level

To import a custom repayment plan directly at a contract level, for contracts in **Version Draft** status, perform the following steps:

1. On the **Contracts** page or in the **Contracts Dashboard**, select the contract for which you wish to change its schedule with a custom repayment plan. Make sure that the contract is in **Version Draft** status.
2. On the displayed contract's page, navigate to the **Payments** tab and double-click the contract displayed in the **Contract Repayment Schedule** section. The **Contract Repayment Schedule** page is displayed.

Contract Repayment Schedule

Date Schedule

04/01/2022

Print Schedule

Contract

45543

Customer

Ping

Import Schedule

☐

Recalculate

No.	Due Date	Remaining Value	PMT	Interest	Principal	Commission	Total Installment	Notif No.
1	04-01-2022	1,500.00		0.00	1,000.00	0.00	1,000.00	23880
1	04-02-2022	500.00	42.80	2.08	40.72	10.00	52.80	
2	04-03-2022	459.28	42.80	1.91	40.89	10.00	52.80	
3	04-04-2022	418.39	42.80	1.74	41.06	10.00	52.80	
4	04-05-2022	377.33				10.00	52.80	
5	04-06-2022	336.10				10.00	52.80	
6	04-07-2022	294.78	42.80	1.56	41.24	10.00	52.80	

A warning message lets you know that "*The previous repayment schedule was generated by the system*". You can either recalculate the schedule using the Loan Management logic, or you can import a custom repayment plan which you build for this contract version.

- On the newly opened **Contract Repayment Schedule** page, select the **Import Schedule** checkbox. The **Schedule File** field is displayed, with the **Select file** button. The **Export Schedule Template** button is also displayed. A warning message informs you that "*The previous repayment schedule was generated by the system*".
- Click the **Export Schedule Template** button to download a .xlsx file with the schedule template for this specific contract.
- Open the downloaded schedule template .xlsx file exported from Loan Management and make it editable.
- Format the **Due Date** column as Text
- Fill in the lines of the template file with the data needed in the contract's custom repayment plan.  
Fill in each installment's type according to the event type.

### NOTE

Make sure you don't change the data formats within the columns, except for the **Due Date** column which needs to be Text. Do not change the headings. Validations are performed for the file after uploading it to Loan Management, when the record is saved, and incorrect formats or data are not accepted, then error messages are shown for such files.

### IMPORTANT!

For contracts with existing repayment notifications, these notifications are already present in the downloaded template file. Do not modify the existing notifications' data. Compose your custom schedule taking into account the already existing repayment notifications.

Read more about the repayment plan template file and how to fill it in its [dedicated section](#).

8. Save the file. If the file needs to be labeled according to your company's information protection policy, label it as **Public**, otherwise, Loan Management can't import it.
9. Back in Loan Management's **Contract Repayment Schedule** page, click **Select File**.

10. In the newly displayed Explorer window, browse for the .xlsx file that contains the custom schedule you've filled in with the contract's repayment plan, then click **Open**.  
The selected file's name is displayed under the **Schedule File** field.
11. Click the **Save and Reload** button. Loan Management performs the validations, making sure that the uploaded file meets all the criteria for a correct, functional schedule.
12. Click the **Run Import Schedule** button to perform the import of the new custom schedule to the contract. This button can be clicked only if a file was selected in the **Schedule File** field. The **Contract Repayment Schedule Details** section now displays data contained in your custom schedule.

The screenshot shows the 'Contract Repayment Schedule' interface. At the top, there are three buttons: 'Export Schedule Template', 'Run Import Schedule', and 'Print Schedule'. Below these, there are input fields for 'Date Schedule' (05/02/2022), 'Contract' (4652.2), and 'Customer' (8273). There is also a 'Schedule File' field with a red error message '4652.2.xlsx' and a 'Select file' button. Below the input fields, there is a table titled 'CONTRACT REPAYMENT SCHEDULE DETAILS' with columns: No., Due Date, Remaining Value, Interest, Principal, Total Installment, and Note No. The table contains four rows of data.

No.	Due Date	Remaining Value	Interest	Principal	Total Installment	Note No.
1	04-03-2022	5,000.00	22.14	1,250.00	1,272.14	
2	04-04-2022	3,750.00	15.62	1,250.00	1,265.62	
3	04-05-2022	2,500.00	10.42	1,250.00	1,260.42	
4	04-06-2022	1,250.00	5.21	1,250.00	1,255.21	

At the bottom of the table, there is a yellow notification box that says: 'The previous repayment schedule was generated by the system.'

If you click the **Run Import Schedule** button one more time, the values within the **Contract Repayment Schedule Details** section are deleted and reinserted.

### NOTE

When versioning a contract that has an imported repayment plan, the schedule recalculation is not mandatory. You can choose between recalculating and importing an updated repayment plan.

## Working with a Repayment Plan Template File



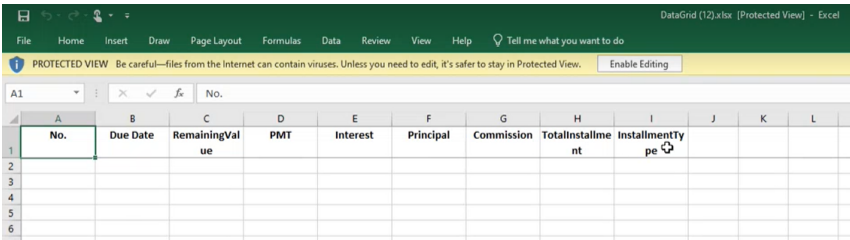
Each time you need to import a custom schedule to a contract, you must export its template file first, make the needed changes, then save the file. Follow these steps to work with repayment schedule template files:

1. On the **Contract Repayment Schedule** page, or on the **Contract Event** page, click the **Export Schedule Template** button.  
A file with **.xlsx** format is downloaded to your computer. The file contains the columns that must be filled in based on the contract's schedule type definition.

**NOTE**

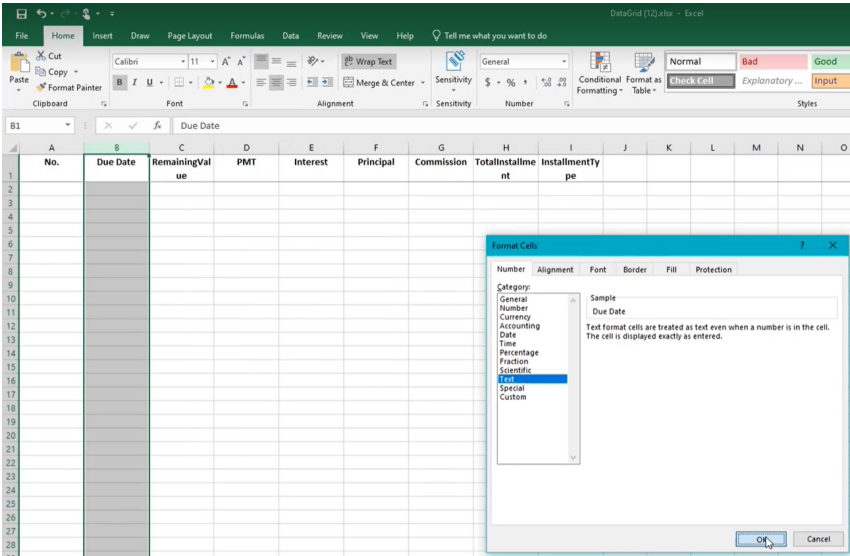
Each contract type may have a different schedule type definition, so make sure you download the template!

This is an example of an exported repayment plan template file:



	A	B	C	D	E	F	G	H	I	J	K	L
1	No.	Due Date	Remaining Value	PMT	Interest	Principal	Commission	Total Installment	Installment Type			
2												
3												
4												
5												
6												

2. After opening the downloaded schedule template **.xlsx** file, make it editable so that you can perform changes within its cells.
3. Format the **Due Date** column as Text.



- Fill in the lines of the template file with the data needed in the contract's custom repayment plan. Fill in each installment's type according to the event type. The possible values are Installment, EarlyRepayment, DownPayment, PaymentHoliday, ReturnAmount, or RescheduleOverdue.

No.	Due Date	Remaining Value	PMT	Interest	Principal	Commission	Total Installment	Installment Type
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								

**NOTE**

Make sure you don't change the data formats within the columns, except for the **Due Date** column which needs to be Text. Do not change the headings. Validations are performed for the file after uploading it to Loan Management, when the record is saved, and incorrect formats or data are not accepted, then error messages are shown for such files.

**IMPORTANT!**

For contracts with existing repayment notifications, these notifications are already present in the downloaded template file. Do not modify the existing notifications' data. Compose your custom schedule taking into account the already existing repayment notifications.

5. Save the file after filling in the template file with the desired schedule information. If the file needs to be labeled according to your company's information protection policy, label it as Public, otherwise, Loan Management can't import it.

## Automatic Validations Performed by Loan Management

A series of checks and validations are performed for the file after uploading it to Loan Management, when the record is saved, before being imported:

- Due Date must be of the correct Text format: dd-mm-yyyy;
- Remaining Value = previous Remaining Value - previous Principal;
- $\text{Sum}(\text{Principal}) = \text{eventValue}$  for Disbursement event type;
- $\text{Sum}(\text{Principal}) = \text{outstanding amount}$  (sum of principal for installments not notified yet) in all other cases;
- Values are not negative;
- Due Date  $\geq$  Activation Date if installment type = DownPayment;
- Due Date  $\geq$  First Due Date if installment type = Installment;
- Due Date  $\leq$  Maturity Date;
- Total Installment respects the formula from the contract's schedule type;
- $\text{Max}(\text{InstallmentNo}) \leq \text{Installment Number}$  from the contract **Overview** tab;
- Due Date and InstallmentNo values must be different and consecutive, except for Early Repayment event type, where you can have 2 installments of the same number on the same day;
- If the installment is of Early Repayment event type, it can only be the first installment in the imported schedule;
- If the import is performed on a contract in **Version Draft** status and there are installments notified, those should not be modified and the checks should

be done over installments that were not notified yet, so  $\text{sum}(\text{principal})$  for installments to be imported = outstanding amount. In this case, Due Date should be  $\geq$  than the last notified installment and Installment Number  $>$  the last notified installment.

If any of these checks fail, then you are presented with error messages and cannot continue with the import process. For example, an error appears when you try to change an installment's Due Date (within the contract's Overview section) starting with the second disbursement.

Warning messages notify you if the previous repayment schedule was generated by the system or it was imported. These warnings are for your information and do not affect the import process. For example, whenever you opt for using the automatically generated repayment plan on a contract that already had an imported schedule, a warning message informs you that the standard system method overwrites the schedule that was imported in a previous version/ event.

### **IMPORTANT!**

For contracts with imported schedules where the second disbursement with repayment contract was automatically generated by Loan Management, the workaround is to:

1. Create a new version of the contract.
2. Recalculate the repayment plan.
3. Approve the contract version.
4. Create a new disbursement.

## Manually Capture Notifications

Apart from the notifications automatically generated by Loan Management for each installment that has to be paid for existing contracts that disbursed various amounts to customers, Loan Management also assists you reconcile wrongly processed cases and other situations resulted from delayed processing/ wrong updates. Thus, depending on your user rights, you can manually add notifications for an active contract based on lending product types, term loans, and mortgages, or add notifications for amounts to be recovered even if there is no active contract. Loan Management includes all such manual notifications in the recovery processes.

### NOTE

Loan Management enables you to manage manual repayment notification via the user interface or via integration through APIs. For information about the available endpoints, please visit the [Loan Management Developer Guide](#). For information about managing manual repayment notification via the user interface, continue reading this page.

### NOTE

You need one of the **Corporate Credit Officer**, **Retail Credit Officer**, or **Loan Admin Officer** [security roles](#) to view, create, delete, and update manual repayment notifications. You need the **Loan Admin Officer** security role to update their status to Approved.

## Adding Repayment Notifications

Follow these steps to manually add a repayment notification:

1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.

- Click **Manual Repayment Notification** menu item to open the **Manual Repayment Notifications** page.

MANUAL REPAYMENT NOTIFICATION								
<input type="checkbox"/> No	Customer	Notification Date	Currency	Notification Status	Total Amount	Remaining Value	Locked for DD	
Q	Q	Q	Q	Q	Q	Q	(All) ▼	
59178	Littel and Sons	05/07/2023	EUR	Recovered	559.00	0.00	<input type="checkbox"/>	
59181	Hyatt - Dooley	21/06/2023	EUR	Recovered	521.00	0.00	<input type="checkbox"/>	
59190	Smith and Sons	21/06/2023	EUR	Processed	886.00	886.00	<input type="checkbox"/>	
59954	Nassem Prince ...	20/01/2023	EUR	Draft	100.00	100.00	<input type="checkbox"/>	
59953	Nassem Prince ...	20/12/2022	EUR	Processed	100.00	100.00	<input type="checkbox"/>	
5	10	20					1	2 3 4 5 ...

Or, click **Repayment Notification** menu item to open the **Repayment Notifications List** page.

REPAYMENT NOTIFICATIONS LIST								
<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status	
Q	Q	Q	Q	Q	Q	Q	Q	
59178	Littel and S...	05/07/2023	EUR	559.00	0.00	05/07/2023	Recovered	
59177	Littel and S...	05/07/2023	EUR	1,200.00	0.00	05/07/2023	Recovered	
59176	Littel and S...	05/07/2023	EUR	440.00	0.00	05/07/2023	Recovered	
59190	Smith and ...	21/06/2023	EUR	886.00	886.00	24/06/2023	Processed	
59189	Smith and ...	21/06/2023	EUR	1,200.00	0.00	21/06/2023	Recovered	
5	10	20					1	2 3 4 5 ...

Within the list, the notifications highlighted in blue are already paid, allocated, or closed to payment, while notifications not highlighted (displayed on a white background) remain to be paid.

- On the **Manual Repayment Notifications** page, click **Insert** to open the **Add Manual Repayment Notification** page.
- Fill in the following details regarding the notification:

Manual Repayment Notification

Customer

Bridg...

Currency

EUR

Contract

7364

Source BankAccount

FIN000004078

Total Amount

Notification Date

22/07/2022

Maturity Date

22/07/2022

Repayment Description

- **Customer** - Select the customer for whom the notification is created.
- **Contract** - Select the number of the contract for which the notification is generated. You can choose from the approved and closed contracts of the selected customer. The currency and the source bank account are automatically filled in using the values from the selected contract. If the notification is not linked to an active contract, you must select a source bank account.
- **Source Bank Account** - Automatically filled in if the contract was selected. Select the bank account from where the notified amount should be allocated. After selecting a source bank account, the currency is changed with the bank account's currency.
- **Notification Date** - Select the date when the notification is created.

#### NOTE

You can also add manual repayment notification from the contract level's **Payments** tab, clicking **Insert** within the **Repayment Notification** section. In the displayed **Add Manual Repayment Notification** page, some of the fields are automatically filled in based on the contract's information and can't be modified.

5. Optionally, view or edit the following details:

- **Currency** - Automatically filled in with the currency of the notification, if the contract or the source bank account was selected.
- **Total Amount** - This read-only field holds the total amount to be paid within the notification, calculated as the sum of all the details' values.
- **Maturity Date** - This field is automatically filled in with the maturity date of the notification, calculated by adding the value of the **Grace period for repayment** field at the product service configuration level to the notification date. If no contract is selected, hence there is grace period to consider from the product service configuration level, then the **ManualGraceRepayment** Loan Management system parameter is used



for maturity date calculation.

- **Repayment Description** - Enter a description for the manual notification.

6. Click the **Save and Reload** button. The manual notification is saved by Loan Management in **Draft** status. You can now continue by [adding repayment notification details](#) to it.

You can view the notifications generated for a specific contract on the **Contract** page, in the **Payments** tab > **Repayment Notifications** section:

NOTIFICATIONS

[Simulate Reschedule Overdues](#)

[Export](#) [Refresh](#)

<input type="checkbox"/>	Name	CustomerId	Notification Date	Currency	Total Amount	remainingValue	Maturity Date	Selected for Reschedule
	Q	Q	Q	Q	Q	Q	Q	(All) ▾
	192124	test974	06/08/2021	EUR	3,381.18	3,381.18	06/08/2021	<input checked="" type="checkbox"/>
	192125	test974	06/09/2021	EUR	3,381.18	3,381.18	06/09/2021	<input checked="" type="checkbox"/>

## NOTE

Once the repayment notification is in **Draft** status, you can edit the currency and the source bank account only if there are no notification details created for it.

## Adding Repayment Notification Details

Follow these steps to manually add a repayment notification detail:

1. On the **Edit Manual Repayment Notifications** page, click **Insert** to open the **Add Manual Repayment Notification Detail** page. The page already has the currency of the notification and the remaining value still to be paid from the notification value completed. When you create the notification detail, **Remaining Value = Value**.
2. Fill in the following details regarding the notification detail:

Add Repayment Notification Detail

Repayment Notification Detail

Operation Item	CurrencyId	Value	RemainingValue
Loan Principal	EUR	23	23

- **Operation Item** - Select the operation item for which the notification detail is created. The [operation item](#) is used in the payment allocation process. If you select an operation item that is not included in the [allocation method](#) used for manual notifications (stored in the [ManualAllocationMethod](#) system parameter), then Loan Management displays a warning message.
  - **Value** - Enter the value of the notification detail. It must be must be greater than 0.
3. Click the **Save and Close** button. The notification detail is saved by Loan Management. You can add as many details as needed to a manual repayment notification in Draft status.

**NOTE**

For the payment allocation job to process the details, you must first [approve the manual repayment notification](#) record.

## Approving Manual Repayment Notifications

After adding all the details you need to a manual repayment notification, make sure you approve it by changing its status to **Approved**. Otherwise, the payment allocation automated jobs don't process it.

Loan Management performs the following validations before approving a manual repayment notification:

- The **Total Amount** of the repayment notification must be greater than 0;
- The **Value** fields at the details level must be greater than 0;
- The operation items selected at details level must be included in the allocation method used for manual notifications (stored in the [ManualAllocationMethod](#) system parameter).

After approval, Loan Management automatically transitions manual repayment notifications from the **Approved** status into **Pending Recover** or **In Recovery** statuses, using the [Auto Process Manual Repayment Notifications](#) scheduled job. Further, the automated settlement of repayment notification takes the notification and processes it, allocating funds from the source bank account to settle the debt.

# Working with Documents

Loan Management allows you to manage all the documents related to a contract in one place, in the contract's **Contracts & Documents** tab. The tab is meant to be the electronic folder of the contract. It displays a list of the document records for the current contract, with details such as document name, type, status, number, whether the record was added through the user interface (`Is manual = True`) or through API integration (`Is manual = False`), and download options for the attached files. Contract documents have a dedicated business workflow, thus you can transition them through a series of [statuses](#).

1	Overview	2	Payments	3	Contracts & Documents	4	History	5	Accounting Entries
Contract Document									
<div>+ Insert</div>									
<input type="checkbox"/>	Document n...	Document type	Status	Number	Is manual	Document options			
	8588 - Incom...	Income Statement	Draft		<input checked="" type="checkbox"/>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
	8588 - Terms...	TermsAndConditions	Draft		<input checked="" type="checkbox"/>	<div><div></div></div>	<div><div></div></div>		

In the **Contracts & Documents** tab, you can: [add a new contract document record](#), edit or delete a record in **Draft** status, view the details for records in **Signed** or **Canceled** status, or download the initial or the signed document, if it exists, by clicking the **Initial document**, respectively the **Signed document** button next to the record. Open the downloaded file to view its content.

## NOTE

Users with the associated predefined security roles of [Corporate Credit Officer](#) and [Retail Credit Officer](#) can perform contract document-related operations such as adding, updating, and deleting records or changing their statuses.

## Contract Document Statuses

A contract document record has the following statuses, visible in the top left corner of the **Add Contract Document** page, after saving the record:

- **Draft** - the status of a newly created contract document record that was not yet authorized (marked as **Signed**). While in this status, you can edit some fields and you can delete the uploaded documents. Change its status to **Signed** after editing all the necessary details and uploading the Signed Document file. Change its status to **Canceled** if the document is not to be used within the contract.
- **Signed** - the status of a contract document record after being authorized. You cannot edit any of the record's details. You can change the status of the record to **Canceled**, if needed.
- **Canceled** - the status of a contract document after being canceled. Once **Signed**, a contract document should be canceled if the document is not to be used within the contract. You cannot edit any of the record's details. There is no further transition from this status. Contract document records created through integration (having their `Is manual` field = `False`) can't be canceled.

## Adding Contract Documents

1. To insert a document to the contract, click the **Insert** button in the **Contract Document** section.

The **Add Contract Document** page is displayed, with the **Document Name** field automatically completed with the name of the document.

### NOTE

You can't add documents to contracts in **Contract Closed** or **Contract Version Closed** statuses.

2. Fill in the following fields:

- **Document type** - Select the type of the document.
- **Description** - Enter the description of the document.
- **Number** - Enter the number of the document, if the document has an external identifier number.
- **Initial document** - Insert the file containing the initial, unsigned document.  
Click the **Select file** button under this field, navigate to the desired file, select it and click **Open**. The selected file's name is displayed here. You can delete it by clicking the **x** next to the file name.
- **Signed Document** - Insert the file containing the final, signed document, if available.  
Click the **Select file** button under this field, navigate to the desired file, select it and click **Open**. The selected file's name is displayed here. You can delete it by clicking the **x** next to the file name.

**NOTE**

To change the status of the contract document record to **Signed**, a signed document file must exist within the record.

3. Click the **Save and Close** button.

**NOTE**

You can also add, update, and approve contract document records through API integration, using the `AddUpdateContractDocument` and `ApproveContractDocument` endpoints. Read more details in the [Loan Management Developer Guide](#).  
Contract document files added through integration cannot be deleted and those records can't be canceled!

## Automatic Contract Document Validations

Loan Management performs the following validations for contract document records:

- The uploaded files' specifications follow FintechOS Platform's settings and restrictions regarding size and format, allowing .pdf,.doc,.docx,.xls,.jpg,.jpeg,.xlsx,.dll,.ppt,.pptx,.txt,.png,.ttf,.xml file formats.
- If the contract document record is in **Signed** status, the record can't be deleted or updated, nor can its files be deleted.
- The name of the contract document record is unique, automatically generated by Loan Management. The naming convention is "the contract name + '-' + the selected document type + '-' + a unique document increment". For example, 5203 - Income Statement - 60.
- The names of the selected files are not validated for uniqueness.

## Treatment of Non Working Days for Schedule

Loan Management takes into consideration the defined non-working days when creating the repayment schedules. The calendar is the default holiday treatment for the loan contracts. In order to have flexibility on how to treat non-working days or public holidays, Loan Management uses a series of attributes and underlying logic. Thus, if the regular due date for loan repayment is defined as the 15th of every month and it falls on a non-working day according to the country calendar followed for that product, Loan Management can shift the due date backward or forward to the first working day, and then continue with the regular 15th of every month.

Manage the holiday settings during banking product definition, in the product's **Repayment** section **Holiday Shift** field, as described in the [Product Factory](#) user guide:

### Holiday Settings

Holiday Shift For Repayment Installments



Defer Due Date



Holiday Shift Method

Forward ▾

### Country Calendars

+ Insert existing

✕ Remove existing

<input type="checkbox"/>	Name
	<input type="text" value=""/>
	Canada
	France

Furthermore, you also have a defer option that allows you to shift the due date without changing the amounts being collected.

## Working with Limits

Limits are used in order to have control over [risk exposure](#). You may approve for a particular customer to take up to certain maximum amount across multiple products or you might want to approve types of products or even have a limit for a specific product alone. The granularity of control you can enforce is up to each financial institution's way of driving the business. Limits capability supports financial institutions to properly manage the company exposure, giving control over their exposure in the market and alignment with their market strategy.

### IMPORTANT!

Setting up limits is mandatory before creating loan contracts. Approved and disbursed loan contracts affect the available limit amounts, so make sure you've configured the limits settings according to your financial institution's needs.

The idea behind working with limits is that when you insert the loan contract, Loan Management performs a validation against the available limit and, if the amount exceeds the available limit, you can decide to increase the limit or decrease the loan.

Once you [create a limit record](#), Loan Management automatically identifies it and links the relevant contracts to it, you can see them on the **Customer Limit** page's **Contracts** section.

**Customer Limit**

**Customer:** [Redacted] **Currency:** EUR **Is Group:** ☐ **Group:** [Redacted]

**Limit Type:** Total Exposure **Limit Date:** 01/08/2022 **Is Revolving:** ☒ **On Repayment:** ☒

**Limit Amount:** 15,000 **Available Limit Amount:** 3,650 **Is Mandatory:** ☒

**Expire Period Type:** Years **Expire Period:** 10 **Expire Date:** 01/08/2032 **Review Date:** 01/08/2025

**Contracts**

[Export](#) [Refresh](#)

<input type="checkbox"/>	Banking Product	Name	Customer	Amount	Advance Amount ...	Overdraft Limit A...	Contract Cover Va...	Activation Date	MaturityDate
<input type="checkbox"/>	Term Loan Interest C...	11671	[Redacted]	1,000.00	50.00			01/08/2022	15/08/2024
<input type="checkbox"/>	Term Loan Interest C...	11672	[Redacted]	10,000.00	0.00			01/08/2022	12/08/2024
<input type="checkbox"/>	Term Loan Interest C...	11673	[Redacted]	100.00	0.00			01/08/2022	12/08/2024
<input type="checkbox"/>	Term Loan Interest C...	11674	[Redacted]	100.00	0.00			01/08/2022	12/08/2024
<input type="checkbox"/>	Term Loan Interest C...	11675	[Redacted]	100.00	0.00			01/08/2022	12/08/2024
<input type="checkbox"/>	Term Loan Interest C...	11676	[Redacted]	100.00	0.00			01/08/2022	12/08/2024

Some contracts can be linked to multiple limits if you have a complex limit structure approved: Total Exposure includes all contracts, then Product Type Exposure has also contracts that may be found under Product Exposure. You can only have one limit of each type of exposure valid in the system. Each exposure is limited in its own and by the higher level. If a customer that already has approved contracts becomes a member of a group, all its active limits are suspended. The same applies when excluding a customer from a group. Read more about [group](#) and [customer exposure](#) types.

Apart from the limit types available out-of-the-box, Loan Management allows you to add your own limit types based on roles associated to contract participants specific to your business, and use them throughout Loan Management with all the functionality of any other default limit type. Read more about [managing limit types](#) and [role-based limits](#).



Similar to contracts, the limits can be revolving or not. For revolving limits, after performing a repayment, the amounts become available on the limit after closing the loan contract or after each repayment transaction.

As for contracts, the **History** tab allows you to see when and who created each version of the limit and access the history version to spot the differences.

1 Customer Limit

2 History

History

Refresh

Export

<input type="checkbox"/>	Name	Label	Attribute Version Date	Attribute Version	Modified by user
	CL000004167	Approved	01/08/2022 03:00	1	

When [versioning a limit](#), you can change certain details, while other can no longer be amended. Usually, you would change the amount and term/ review date for the limits.

You can have the limit in one currency and the underlying contracts in other currencies, unless you have product specific limits. Loan Management uses the available [Exchange Rate](#) to translate the amount into the limit currency and impact the usage and available figures.

## Jobs, System Parameters, and Reports for Limits

Loan Management uses the following jobs to recalculate limits:

- [Start Of Day \(SOD\) Job](#) with the following services:
  - Set Limit Available Amount Due To FX Change - The service recalculates the available amount on limits depending on the currency's exchange rate on a specific day
  - Set Contract Amount (Overdraft) Due To Plan Due Date Reached (Increase/ Decrease) - The service increases/ decreases the limit amount on overdraft contracts that reached their reevaluation plan due date.
  - Set Credit Facility Amount Due To Plan DueDate Reached (Increase/ Decrease) - The service increases/

decreases the limit amount on credit facilities that reached their reevaluation plan due date.

- **End Of Day (EOD) Job** with the following services:
  - **Set Limit Expired** - The service sets the limits which are about to expire in the current day as Expired.
  - **Set Limit Available Amount Due To FX Changes** - The service sets the limit amounts available to all contracts due to exchange rates changes.

The system parameters used for limits management are listed below:

- **LimitMandatoryForIndividuals** - specifies whether Loan Management should validate the limits for individual customers or only validate them for legal entity customers.
- **DefaultIntervalLimitsReport** - represents the default number of months considered when running the reports within the **Limit Report** dashboard.
- **CreditFacilityLimitPercent** - represents the default limit of credit facility records.

Here are the reports that help you view the limits in Loan Management:

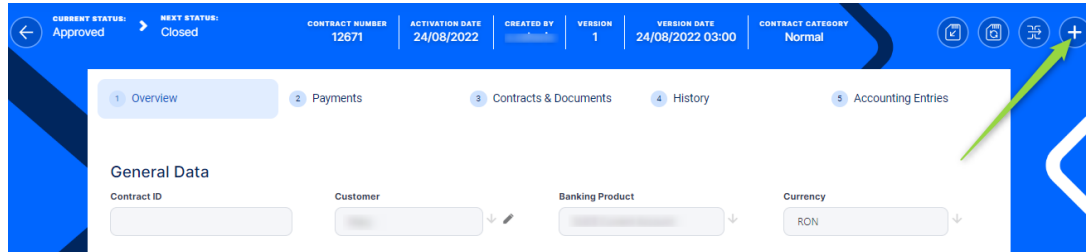
- **Customer Limits** - displays a list of the existing customer limit records, a list of the customer limit approval requests, and a button for adding new customer limits.
- **Limit Report** - displays different sections for expired limits, limits with available amount lower than 0, limits about to expire and limits to be reviewed, the latest two with the option to select the desired interval of dates.

## Creating New Versions of Existing Loan Contracts

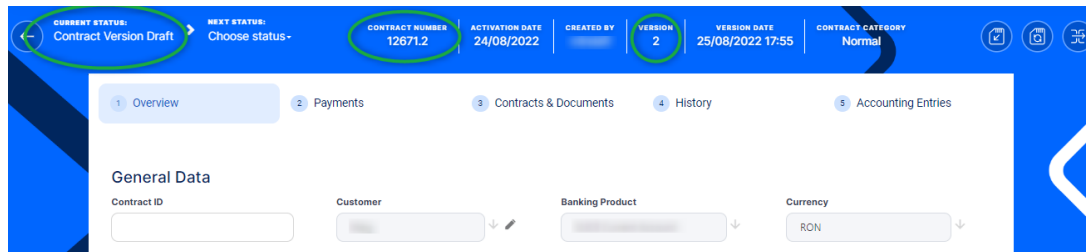
In Loan Management, the contracts are [set up for versioning](#). Thus, if you want to update the details of an approved contract, then you must create a new version of the record.

To create a new version for a record with the **Approved** status, follow these steps:

1. While in the **Contract** page of the record selected for updates, click the **New Version** button.



2. View the new version of the contract created by Loan Management, with **Contract Version Draft** status.



3. Edit the desired fields in the **Overview** tab. You can only edit a set of fields for contracts based on specific banking products.
4. Click the **Save and Reload** button.

If you approve the contract in **Contract Version Draft** status, then the original record transitions into the **Contract Version Closed** status and the secondary version becomes the **Approved** currently active contract record.

Read more details about versioning a record on the [How to Version an Entity Record](#) page.

#### NOTE

Loan Management automatically creates a new version of a contract when the payment schedule is modified.

When versioning a contract that has an imported repayment plan, the schedule recalculation is not mandatory. You can choose between recalculating and importing an updated repayment plan.

## Possible Changes on New Loan Contract Versions

- The **Financed Amount** value can either be increased or decreased. The amount can be decreased with a number smaller than or equal to the **Available amount**. Financed amount can be increased up to the maximum value specified at banking product level.
- The **Current Account** attached to the loan contract can be changed to any other active account belonging to the customer.
- **Product Interest** can be changed to any other type set at banking product level.
- **Schedule Type** can be changed with any other type set at banking product level.
- **Contract Period** cannot exceed the maximum period set at banking product level.
- **Repayment Due Date** can be changed with any value between 1-31.
- **Grace Period** can be changed up to the maximum number of months set at product service configuration level.

After any of the above changes, in order to approve the new version of contract, the **Contract Repayment Schedule** must be recalculated.

## Viewing a Contract's History

You can view the versions of the contract, along with workflow status and the user who modified the record, in the contract's **History** tab.

1 Overview 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

### History

Refresh Export

<input type="checkbox"/>	Name	Label	Attribute Version Date	Attribute Version	Modified by user
<input type="checkbox"/>	Q	Q	Q	Q	Q
<input type="checkbox"/>	10186	Approved	19/08/2022 11:39	3	c.m
	10186.2	Contract Version Closed	15/07/2022 15:17	2	c.m
	10186.3	Contract Version Closed	15/07/2022 03:00	1	c.m

A contract can have only one **Draft** version, one **Current** version, but it may have multiple **History** versions, which are displayed in this section. Here you can track the contract's life cycle and view older versions that are no longer active. Double-click a version in the list to view its details.

**CURRENT STATUS:** Contract Version Closed

CONTRACT NUMBER: 10186.2 | ACTIVATION DATE: 15/07/2022 | CREATED BY: [User] | VERSION: 2 | VERSION DATE: 15/07/2022 15:17 | CONTRACT CATEGORY: Normal

1 Overview | 2 Payments | 3 Contracts & Documents | 4 History | 5 Accounting Entries

**General Data**

Contract ID: [Field]

Activation Date: 15/07/2022

Amount: 10,000

Start Calculation Date For Amount Unused: 15/08/2022

Auto disbursement: ☐

**Customer**

Customer: [Field]

Main Bank Account: FIN000006094

Advance Amount Percentage: 0

Maximum Disburse Date: 14/07/2023

Direct Debit Settlement Account: ☒

**Banking Product**

Banking Product: [Field]

Current Account: [Field]

Advance Amount Value: 0

Sales Channel: ECommerce

**Currency**

Currency: EUR

**Destination Bank Account**

Destination Bank Account: [Field]

**Managing Branch**

Managing Branch: root

## Viewing a Contract's Accounting Entries

You can view all the accounting entries, accounting totals, and accruals and provisions recorded for a contract within the **Accounting Entries** tab of the contract. These records are automatically generated by the system, after performing transactions for an approved contract.

### View Accruals and Provisions

To view the records containing daily accrual and provisions, generated automatically by the system respecting the definition of the contract, product dimensions, system parameters and jobs, follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accruals and Provisions** section.

Accruals And Provisions

<input type="checkbox"/>	Classification	Contract	Calculation D...	Daily Accrual ...	Accumulated ...	Daily Accrual ...	Accumulated ...	Daily Interest ...	Accumulated ...	Daily Fee Acc...	Accumulated ...	Principal Prov...	Previous Prin...	Process Days
	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
	Substandard	8588	30/09/2022	0.12000000	1.08000000					0.00000000	0.00000000		100.00000000	9
	Normal	8588	24/06/2022	0.14000000	0.42000000					0.00000000	0.00000000			3
	Normal	8588	23/06/2022	0.14000000	0.28000000					0.00000000	0.00000000		100.00000000	2

2. View the information displayed for each accrual and provision entry:
  - **Classification** - The classification of the accrual and provision entry. The classification is determined based on the records created in the **Loan Classification** menu. These records classify transactions based on the number of days since a repayment notification is overdue.
  - **Contract** - The number of the current contract.
  - **Calculation Date** - The date when the accrual and provision calculation was performed.
  - **Daily Accrual Interest** - The amount of interest accrued on that day.
  - **Accumulated Interest Accrual** - The total amount of interest accrued until that day.
  - **Daily Interest Provision** - The amount of interest provisioned on that day.
  - **Accumulated Interest Provision** - The total amount of interest provisioned until that day.
  - **Daily Fee Accrual** - The amount of fees and commissions accrued on that day.
  - **Accumulated Fee Accrual** - The total amount of fees and commissions accrued until that day.
  - **Principal Provision** - The amount of principal provisioned.
  - **Previous Principal Provision** - The previous amount of principal provisioned.
  - **Process Days** - The number of days processed.

## View Accounting Totals on Contract

To view an overview of the total amounts specified in accounting records generated by the **Generate Accounting Entries** service in the [Core Banking END OF DAY \(CB\) daily job](#), follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accounting Totals on Contract** section.

#### Accounting Totals On Contract

[Refresh](#)

Account	Total Debit	Total Credit
20219 Other treasury loans	135.61	0.00
20271 Accrued interest	0.26	0.26
20272 Amounts to be deferred	0.00	500.00
25110 Current accounts	550.00	185.61
28120 Overdue interest	0.26	0.00
29111 Impairment allowance_principal_normal status	0.00	1.36
66211 Impairment allowance expense_principal_normal status	1.36	0.00
70222 Interest from term loans	0.00	0.26
90300 Commitments on behalf of customers	10,000.00	135.61
99900 Counterparty	135.61	10,000.00

2. View the information displayed for each total amount:
  - **Account** - The account where the operation was performed.
  - **Total Debit** - The amount which was debited from the account.
  - **Total Credit** - The amount which was credited to the account.

## View Accounting Entries

To view the accounting for the transactions related to the loan contract generated by the **Generate Accounting Entries** service in the [Core Banking END OF DAY \(CB\) daily job](#), follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accounting Entries** section.

Accounting Entries

[Refresh](#) [Export](#)

Name	Accounting Date	Accounting Value	Analytic Credit A...	Analytic Debit A...	Currency	Equivalent Value	Exchange Rate	Description
Acc8588	21/06/2022	10,000.0000			EUR	10,000.0000	1.0000	Approval of 8588
AccECB672	21/06/2022	1.3600			EUR	1.3600	1.0000	Disburse 8588
AccECB672	21/06/2022	135.6100			EUR	135.6100	1.0000	Disburse 8588
AccECB672	21/06/2022	135.6100			EUR	135.6100	1.0000	Disburse 8588
Acc460193	21/06/2022	500.0000	20272_TL_REG_EUR	25110_TL_REG_EUR	EUR	500.0000	1.0000	Repayment Front-end Fee Due 21.06.2022
AccAccrual8588	23/06/2022	0.1400	20271_TL_REG_EUR	28120_TL_REG_EUR	EUR	0.1400	1.0000	EOD 23.06.2022
AccAccrual8588	23/06/2022	0.1400	70222_TL_REG_EUR	20271_TL_REG_EUR	EUR	0.1400	1.0000	EOD 23.06.2022
Acc460194	21/07/2022	50.0000	25110_TL_REG_EUR	25110_TL_REG_EUR	EUR	50.0000	1.0000	Repayment Management Fee Due 21.07.2022
AccAccrual8588	30/09/2022	0.1200	20271_TL_REG_EUR	28120_TL_REG_EUR	EUR	0.1200	1.0000	EOD 30.09.2022
AccAccrual8588	30/09/2022	0.1200	70222_TL_REG_EUR	20271_TL_REG_EUR	EUR	0.1200	1.0000	EOD 30.09.2022

- View the information displayed for each accounting entry:
  - Name** - The id of the accounting entry.
  - Accounting Date** - The date when the entry was generated.
  - Accounting Value** - The value of the accounting entry.
  - Analytic Credit Account Code** - The code of the analytic credit account.
  - Analytic Debit Account Code** - The code of the analytic debit account.
  - Currency** - The currency of the accounting entry.
  - Equivalent Value** - The equivalent value of the accounting entry expressed in the contract's currency.
  - Exchange Rate** - The exchange rate between the accounting entry currency and the contract currency.
  - Description** - The description of the accounting operation.

## Changing the Borrower of a Loan

In specific circumstances, such as takeover or merged acquisition for SME customers, or divorce or inheritance for retail customers, the financial institution might have to perform a credit novation or cession. In other words, this means that an active loan contract should be altered by changing the borrower of that contract, effectively transferring to the new owner all benefits and burdens of the loan.



### IMPORTANT!

Your financial institution most likely has an elaborated novation approval internal process. Make sure you follow exactly that process, acquire all the necessary documents and approvals, and implement the process as defined!

Loan Management allows you to perform such changes to contracts, either through the user interface, or by orchestrating these actions through [API integration](#). In a few words, you can do this by creating a loan for the new owner and use its amount to repay the previous borrower's loan, which is then closed.

Follow the steps below to perform the changes needed in order to alter the owner in an active contract:

1. Check if the new owner is recorded as a [customer](#) in the system.  
If not, then [create a new customer record](#) for the new owner.
2. Verify if the new owner has at least one [settlement account](#) in the same currency as the existing loan contract.  
If not, [create a new current account](#) for them in the same currency, to be used as a settlement account in the new loan contract. Remember to [approve the contract](#).
3. Make sure that the new owner has an available [limit](#) with an amount at least equal to the remaining amount of the existing loan contract for non-revolving loans, or at least equal to the total amount for revolving loans.  
If not, [create and approve a limit](#) for the new owner to cover the existing loan contract's needed amount.
4. [Create a new loan contract](#) for the new owner for the approved amount.
5. [Disburse](#) the required amount into the settlement account, if it didn't happen during contract approval (for auto-disbursed loans).
6. Use the amount from the new owner's settlement account to perform a [withdrawal transaction](#).
7. Use the withdrawn amount to perform a [top-up transaction](#) into the settlement account of the original loan.
8. If there are overdue amounts on the previous loan, make sure the internal [direct debit settlement account](#) setting is active, so the missed notifications are automatically covered.

9. If needed, perform an [early repayment](#) to cover any outstanding notifications.
10. [Close the loan contract](#) belonging to the previous borrower.
11. If the previous borrower has no other active loans, you can [close their available limits](#) or decrease it.
12. [Close the settlement account](#) of the previous borrower.
13. In special circumstances such as bankruptcy, takeover and so on, you may consider retiring the previous borrower's customer record by changing its status to Blocked or Closed.

That's it! You've created a new loan contract for another borrower, and with the funds made available you've paid back all remaining amounts of the old loan. In the process, you've tied all the loose ends, closing settlement accounts, limits and even customer records. In the future, the new borrower has to repay the due amounts as specified in the new loan contract.

**NOTE**

For improved traceability purposes, during the Loan Management implementation process, your financial institution should consider extending the contract to catch the id of the closed contract and the reason for closure.

Also consider creating a special report for the accounting notes to show any future accounting entries. The report could be useful if you need record continuity from the old to the new contract, when you might want to copy the early repayment/disbursement transactions and rename them as repay/novation and disburse/novation.

## Current Accounts

A current account is a bank account where you can store and withdraw money, enable it for debit/ credit transactions internally (disburse/ repay loan, transfer between accounts) or via integrated solutions for card management or payments. Loan Management enables you to create contracts based on current account products and to manage such contracts.

In Loan Management, current accounts are mainly used as **settlement accounts** - a customer's bank account opened for the purpose of transferring the funds granted through a loan, to repay the due installments, and to perform deposit funding and liquidation. They are also used as **guarantees** - a **collateral** offered by the customer to the financial institution for borrowing larger amounts. In this case, the financial institution may request the customer to maintain a specific balance in the current account used as guarantee.

Read about the operations that you can perform for the current accounts with or without the overdraft functionality.

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## Current Account Contract Life Cycle and States

The four-eyes principle is applicable for all contracts in FintechOS Loan Management, meaning that a record should be approved by a second financial institution employee, with higher authorization rights. This is enabled via approval task FintechOS Platform

capabilities and thus it is also a financial institution's responsibility to set proper [security roles](#) and access rights to its users, in order to make sure that the same user can't insert and also authorize the same record.

A contract record has the following business workflow statuses:

- **Draft** - the status of a newly created contract record that was not yet sent for approval. While in this status, you can edit some fields, but you can't add events (payments) to it. Send the record to approval after editing all the necessary details.
- **Pending** - this is a system status applied to contracts sent for approval, but not yet approved. No updates are available in this system status.
- **Approved** - the status of a contract record after being authorized by a user with contract approval competencies. While in this status, you cannot edit the record's details, but you can add events to it within the **Payments** tab. If you need to alter the contract's details, create a new version based on the current contract.

#### NOTE

Each event must also be approved by a user with contract approval competencies, otherwise, the transaction is not performed by the system. New contract approval is blocked by Loan Management if the customer has overdue days  $\geq$  the value of the [DelayDaysForBlockNewContractApproval](#) parameter.

- **Closed** - the last status of a contract, after manually closing it or after creating a new version based on the current version. No updates are allowed on the record.
- **Canceled** - the status of a contract after manually canceling it straight from the **Draft** status. No updates are allowed on the record.

#### NOTE

Change the contract's status to **Approved** so that the customer can use the contract and in order to apply transactions to it.

## Contract Versioning

Loan Management allows you to create new versions for an existing contract if you need to modify an existing approved contract. New versions are automatically created when the payment schedule is modified - that implies any increase/ decrease, change of costs, reschedule or payment holiday transactions.

A contract version can have the following statuses:

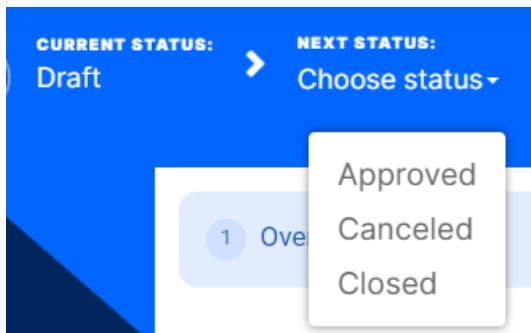
- **Contract Version Draft** - the status of a newly created contract version record that was not yet sent for approval. While in this status, you can edit some fields, but you can't add events (payments) to it. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a contract version record after being authorized by a user with contract approval competencies. While in this status, you cannot edit the record's details, but you can add events to it within the **Payments** tab.
- **Contract Version Closed** - the last status of a contract version, after manually closing it or after creating another new version based on the current version. No updates are allowed on the record.

### NOTE

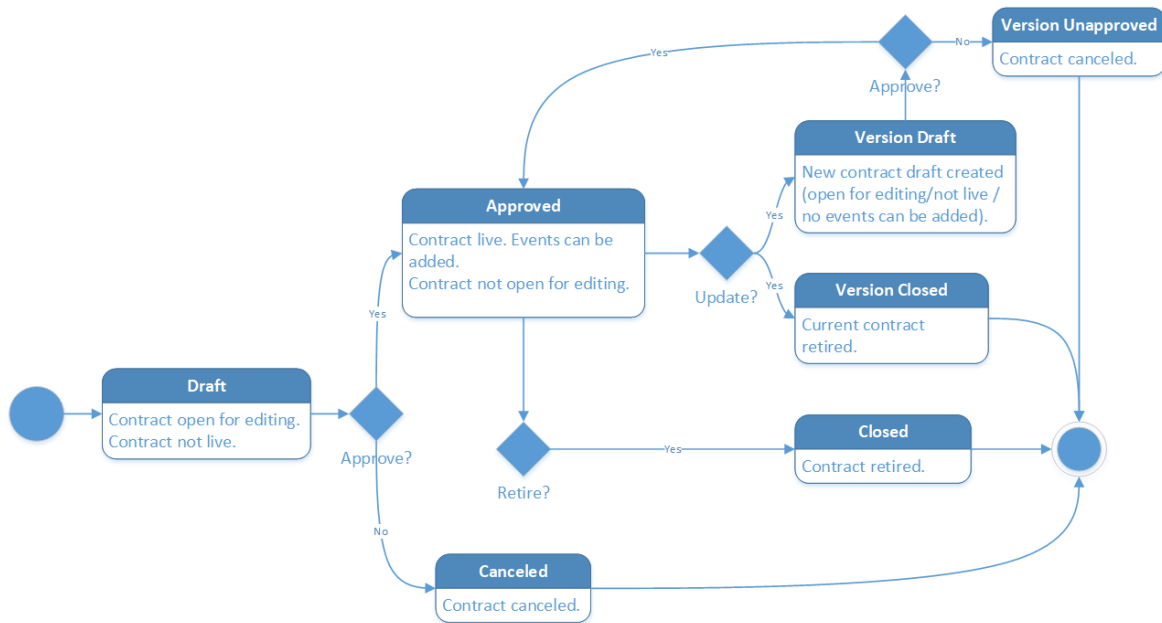
All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event outside regular schedule is approved for that contract.

## Changing Contract Statuses

You can manage a contract's life cycle by changing its status from the top right corner of the screen.



The contract status transitions are illustrated below:



Note that:

- Once a record is live, its settings can no longer be modified.
- If you want to update the details of a live contract, you must create a new contract version.
- When you create a new contract version, the current version is retired and moved to history; no updates are allowed on the retired version.
- Every contract version starts in a draft state and must go through an approval process before going live.
- Only one version of a contract can be live at one time.

#### NOTE

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Creating a Current Account

A current account is a bank account where you can store and withdraw money, enable it for debit/ credit transactions internally (disburse/ repay loan, transfer between accounts) or via integrated solution for card management or payments.

A current account with an attached overdraft functionality allows customers to withdraw funds from the account even if the available balance goes below zero. If there is a prior agreement with the account provider for an overdraft, and the amount overdrawn is within the authorized overdraft limit, then interest is normally charged at the agreed rate. If the negative balance exceeds the agreed terms, then additional fees may be charged and higher interest rates may apply. The customer may use the account beyond their available balance (credit balance) and may have a debit balance as low as the approved overdraft/ limit. The overdraft can be added on top of existing current accounts.

The overdraft feature of the current account may expire, in which case the contract continues to function as a current account. If needed, the overdraft feature can be reactivated in the future within the same contract by editing the contract and [creating a new version](#). If the overdraft feature is extended by creating a new version of the contract, the repayment schedule is also updated. In cases when the feature is extended after a period of expiry, then the repayment schedule has a missing period equivalent with the period when overdraft was expired. All overdue amounts from previous overdraft notifications generated for the same current account contract are covered automatically, decreasing the balance and available limit amount of the new overdraft. The overdraft amount can fluctuate seasonally or be reduced or increased according to a schedule, defined in the Contract Reevaluation Plans section of the contract.

### NOTE

Before creating a current account contract, make sure that the customer is recorded in Loan Management.

To create a new contract:

## 1. Add Minimum Contract Data

1. Open the **Contracts** page as described in the [Managing Contracts](#) section.
2. Click the **Insert** button to display the **Add Contract** page is displayed, the initial page when you insert any type of contract.

ADD CONTRACT

Contract

Customer Type

Product Type

Current Account Overdraft

Customer

Banking Product

Current Acc w Overdraft

3. Fill in the following fields:
  - **Customer Type** - Optionally, select the type of the customer for the contract, to filter the displayed customers in the next field.
  - **Customer** - Select from the list the customer for whom you are creating a contract.
  - **Product Type** - Select from the list the product type to filter the list of banking products accordingly.
  - **Banking Product** - Select from the list the desired banking product. Only the products attached to a [product service configuration](#) in **Approved** status are available for your selection.

#### NOTE

Be careful when choosing the values for the previously mentioned fields because you can't modify them after saving the contract!

Make sure that you select **Current Account** in the **Product Type** field and a **Current Account** banking product in the **Banking Product** field. If you want to use the overdraft functionality now or sometime in the future for this current account contract, select **Current Account Overdraft** in the **Product Type** field and a **Current Account with Overdraft** banking product in the **Banking Product** field.

4. Click the **Save and Reload** button.



Loan Management saves the contract in **Draft** status, with minimum default information, such as an auto-generated contract number, created by, version and version number. The previously provided details are kept on screen in the **General Data** section, but they are no longer available for update. The **Currency** has been updated from the banking product level.

**General Data**

Contract ID:

Customer:

Banking Product:

Currency:

Activation Date:

Main Bank Account:

Managing Branch:

Direct Debit Settlement Account: ☒

Sales Channel:

**Product Interest Rate**

Interest Commission Item:

Product Interest:

Date for Review Interest Rate:

Please Click 'Save And Reload' to view or change the interest rate plan

Proceed to the next steps where the details about the contract are captured and validated against the underlying product, setting the basic elements for the creation of a contract such as customer, banking product, activation date, interest rate, fees, and contract classification, within the newly displayed **Overview** tab.

## 2. Add General Data to the Contract

**General Data**

Contract ID:

Customer:

Banking Product:

Currency:

Activation Date:

Main Bank Account:

Managing Branch:

Direct Debit Settlement Account: ☒

Sales Channel:

1. Fill in or modify, or view the following information:
  - **Contract ID** - Enter a contract ID other than the contract number generated automatically by Loan Management when you saved the contract.
  - **Main Bank Account** - When the contract is approved, this account is created automatically for the bank defined as Main in Loan Management, within the **Loan Management Operational > Bank menu**. In order to generate an account number, a rule must be defined during the Loan Management implementation phase (example: branch code + incremental sequence number). Until contract approval, no information is displayed here, and you can't edit the field.
  - **Managing Branch** - This represents the branch of the organization where the contract was created. Suppose you work in a branch or credit center, and you need cases to be linked to a specific location so that you can properly allocate them for further actions. It is automatically completed at contract saving time, but you can select another branch from the list.
  - **Direct Debit Settlement Account** - Select this checkbox if the automated settlement of repayment notifications (the direct debit settlement account) functionality is turned on at the contract level. The value of the checkbox was set at the product service configuration level, but it can be modified at the contract level. The checkbox can be edited in all the statuses of a contract except Version Closed, Closed, and Canceled.

**NOTE** The Direct Debit Settlement Account setting at the customer level takes precedence over the setting at the contract level when creating new contracts. For existing contracts, Loan Management applies the setting configured within the

`CustomerToContractDirectDebitSettlementAcc`  
system parameter.

- **Sales Channel** - Select the channel through which the contract is created.

2. Click the **Save and Reload** button.

### 3. Manage Product Interest Rate for the Contract

Enter the details about the Product Interest Rate applied to the contract. Depending on the product definition again, you have a list of interest definitions that you can bring along to the contract.

#### Product Interest Rate

<p><small>Interest Commission Item</small></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> <span>InterestForOverdraft</span> <span>↓</span> </div>	<p><small>Product Interest</small></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> <span>Fix Eur 5%</span> <span>↓</span> </div>	<p><small>Date for Review Interest Rate</small></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> <span></span> <span>📅</span> </div>
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Please Click 'Save And Reload' to view or change the interest rate plan

To manage the product interest rate as it must be applied to this contract:

1. Fill in or modify the following fields:
  - **Interest Commission Item** - This field is automatically completed with the interest & commission item defined at the product level, if only one item is found at the product level. If the selected product has more items, you must select one from the list.
  - **Product Interest** - Select from the interest to be applied for this contract. Only the interests associated to the selected banking product are displayed within the list. Penalty interests cannot be selected here.
  - **Date for Review Interest Rate** - Enter the date for reviewing the interest rate applicable. For variable interest, this field is automatically completed with the Reference Rate Date + Reference Interest Period of the underlying interest definition, from the base type interest attached to variable interest. You can edit this field. For

months where the date is overlapped, the last day of the month is used for the calculation.

2. Click the **Save and Reload** button.

### NOTE

Fill in any other mandatory fields from the **General Data** and **Repayment Overview** sections, otherwise you can't successfully save the contract.

## 4. Manage Contract Level Interest & Penalty Interest Rates

Define the information about the contract interest rate (or rates, if you selected a **Collection** type interest rate in the previous **Product Interest Rate** section) in a table format, in the section **Contract Interest Rate** section, which appears only after saving the selected product interest rates.

You can edit the tables cells, so you can customize the interest rates selected at the product level, if the interest and commission list was defined as negotiable, to obtain the desired interest rates configuration at the contract level. You can also add or delete interest rates, using the **Add Interest Rate**, respectively the **Delete** buttons above the tables. Thus, the tables enables you to work with multiple interest rates at the contract level.

Contract Interest Rate

[+ Add Interest Rate](#) [X Delete](#) [Refresh](#)

<input type="checkbox"/>	Interest	Start Date	End Date	From Install...	To Installment	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Notified	Past Unnotifi...
<input type="checkbox"/>	Fixed 4%	22/07/2022	15/07/2027	1	12	4.0000	4.0000	0.0000	0.0000	4.0000	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Corporate Floa...	22/07/2022	15/07/2027	13	60	4.0000	0.0000	6.0000	1.2600	7.2600	<input type="checkbox"/>	<input type="checkbox"/>

### NOTE

The information disappears if you change the product interest, tenor, first due date, maturity date, contract period, or activation date. In this case, save the contract again to display the updated information.

To customize the information specific to each of the contract's **interest rates**:

1. In the **Contract Interest Rate** section, edit the existing information that was automatically completed based on your product interest rate selections:
  - **Interest** - Automatically completed with the interest (or interests, for Collection type product interest rate) selected in the previous **Product Interest Rate** section. You can select from the drop-down list the interest to be applied for this contract. Only the interests associated to the selected banking product are displayed within the list. Penalty and overdraft interests cannot be selected here. Depending on the selected interest, other fields can be displayed to be filled in.
  - **Start Date** - The interest's start date, automatically completed with the contract's activation date.
  - **End Date** - The interest's end date, automatically completed with the contract's maturity date.
  - **From Installment** - The first installment for which this interest is applied to the contract.
  - **To Installment** - The last installment for which this interest is applied to the contract.
  - **Minimum Interest Rate** - This read-only cell is automatically completed with the minimum interest rate applicable for the contract, defined at the banking product level.
  - **Fixed Rate** - The fixed rate of the interest. You can only change it if the interest at the banking product level was marked as **Is Negotiable**.
  - **Margin** - This cell is automatically completed with the margin of the previously selected product interest. You can only change it if the interest at the banking product level was marked as **Is Negotiable**. If the product interest was not selected, you can manually enter the margin.
  - **Reference Rate** - This read-only cell is automatically completed with the interest type's definition's reference rate valid at the previously selected date.

- **Total Interest Rate** - This read-only cell is automatically completed with the calculated total interest rate of the previously selected product interest and any values entered for margin and reference rate. If the product interest was not selected or if the interest at the banking product level was marked as **Is Negociable**, you can manually enter the interest rate.
  - **Notified** - This is a read-only checkbox. For contracts in **Version Draft** status, it shows you whether the installments range shown on this table line was already notified or not.
  - **Past Unnotified** - This is read-only cell read-only checkbox. For contracts in **Version Draft** status, it shows whether there are days that already passed from the current month's not yet notified installment, days for which you can't change the interest rate.
2. After performing the desired changes, make sure that the interest rate (s) cover the entire tenor of the contract, from activation date until maturity date, and there are no overlapping intervals, otherwise an error prevents you from approving the contract.
  3. Click the **Save and Reload** button.

**NOTE**

Loan Management takes into consideration and recalculates the schedule even in cases when the interest is of **Collection** type and there are multiple interest rates within a single repayment interval due to changes in the interest definition between due dates. In such cases, Loan Management keeps the interest accrued up until the change occurs and rebuilds the remaining of the repayment schedule.

## 5. (Only for Current Accounts with Overdraft) Enter Overdraft Information for the Contract

For current accounts with overdraft functionality, in the **Overdraft** section you should enter the overdraft limit amount and expiration date, in the **Overdraft Interest** section select an interest applicable for the overdraft amount, and then in the **Overdraft Interest Rate** section amend the overdraft interest rates applicable for this contract, so that Loan

Management can properly build the repayment schedule.

**Overdraft**

Overdraft Limit Amount: 10,000

Expire date for Overdraft: 08/02/2023

Date for Review Overdraft Interest Rate:

**Overdraft Interest**

Overdraft Interest: Overdraft Floating BIBOR 6M

**Overdraft Interest Rate**

+ Add Overdraft Interest Rate X Delete Refresh

<input type="checkbox"/>	Interest	Start Date	End Date	Minimum A...	Maximum A...	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Is Penalty	Is For Overdr...
<input type="checkbox"/>	Overdraft Floa...	08/09/2022	30/09/2024	0.00	10,000.00		0.0000	2.0000	1.5700	3.5700	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- In the **Overdraft** section, fill in or modify the following information specific to the contract's overdraft functionality:
  - Overdraft Limit Amount** - Enter the limit for the overdraft amount applicable for this contract. If the overdraft limit amount is greater than 0, then all the fields related to the overdraft interest rate are mandatory to be completed, as well as a newly displayed field, **Start Calculation Date For Amount Unused**, back in the **General data** section.
  - Expire Date for Overdraft** - Enter the date until when the overdraft functionality is active for this contract. On the expiry of the overdraft limit, any used amount and the underlying interest becomes due. A repayment notification is generated in case the current account does not hold enough balance to cover the interest.

### NOTE

The due dates of all installments within the repayment schedule of current account with overdraft contracts fall before the expire date for overdraft.

- Date for Review Overdraft Interest Rate** - Optionally, enter the date for reviewing the interest rate applicable for the overdraft.

2. In the **Overdraft Interest** section, select from the list the overdraft interest to be applied for the overdraft amount of this contract. Only the interests marked as **Is For Overdraft** are displayed within the list.
3. Click **Save And Reload** to view or change the overdraft interest rate plan.
4. In the **Overdraft Interest Rate** section, configure the contract's overdraft interest rate in a table format, similar to the one in the **Contract Penalty Interest Rate** section.

## Overdraft Interest Rate

<div> <span>+ Add Overdraft Interest Rate</span> <span>✕ Delete</span> <span>↻ Refresh</span> </div>												
<input type="checkbox"/>	Interest	Start Date	End Date	Minimum A...	Maximum A...	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Is Penalty	Is For Overdr...
<input type="checkbox"/>	Overdraft Floa...	09/09/2022	30/09/2024	0.00	12,000.00		0.0000	2.0000	1.5700	3.5700	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**NOTE**

The information disappears if you change the overdraft interest.

In this case, save the contract again to display the updated information.

You can edit the tables cells, so you can customize the overdraft interest rates, if the interest and commission list was defined as negotiable. You can also add or delete overdraft interest rates, using the **Add Overdraft Interest Rate**, respectively the **Delete** buttons above the tables. Thus, the tables enables you to work with multiple overdraft interest rates at the contract level.

To customize the information specific to each of the contract's **overdraft interest rates**, edit the existing information that was automatically completed based on your overdraft interest rate selection:

- **Interest** - Automatically completed with the interest (or interests, for Collection type product interest rate) selected in the previous **Overdraft Interest** section. You can select from the drop-down list the



overdraft interest to be applied for this contract. Only the overdraft interests associated to the selected banking product are displayed within the list.

- **Start Date and End Date** - The overdraft interest's start and end date, automatically completed with the contract's activation, respectively maturity date.
- **Minimum and Maximum Amount** - The overdraft interval to which the overdraft interest is applicable.
- **Minimum Interest Rate** - This read-only cell is automatically completed with the minimum interest rate applicable for overdraft amounts for this contract, defined at the banking product level.
- **Fixed Rate** - The fixed rate of the overdraft interest. You can only change it if the interest at the banking product level was marked as *Is Negotiable*.
- **Margin** - This cell is automatically completed with the margin of the previously selected overdraft interest. You can only change it if the overdraft interest at the banking product level was marked as *Is Negotiable*. If the overdraft interest was not selected, you can manually enter the margin.
- **Reference Rate** - This read-only cell is automatically completed with the overdraft interest type's definition's reference rate valid at the previously selected date.
- **Total Interest Rate** - This read-only cell is automatically completed with the calculated total overdraft interest rate of the previously selected overdraft interest and any values entered for margin and reference rate. If the overdraft interest was not selected or if the overdraft interest at the banking product level was marked as *Is Negotiable*, you can manually enter the overdraft interest rate.


After performing the desired changes, make sure that the overdraft interest rate(s) cover the entire tenor of the contract, and there are no overlapping intervals, otherwise an error prevents you from approving the contract.

5. Back up in the **General Data** section, in the newly displayed **Start Calculation Date For Amount Unused** field, select the date when the amount not drawn from the overdraft limit amount starts to be calculated. This field is displayed and required to be filled in only when the **Overdraft Limit Amount** value is  $>0$ .
6. Click the **Save and Reload** button.

## 6. Enter Repayment Information for the Contract

In the **Repayment Overview** section you should enter term and schedule type so that Loan Management can properly build the repayment schedule.

Repayment Overview

<b>Schedule Type</b> OverdraftCurrentAcco... 	<b>Contract Period</b> 24	<b>Contract Period Type</b> Months	<b>MaturityDate</b> 30/09/2024
<b>Repayment at end of month</b> <input checked="" type="checkbox"/>	<b>Initial Principal Value</b> 		

1. Fill in or modify the following information specific to the contract's repayment schedule:
  - **Schedule Type** - Select the [payment schedule type](#) to be used to calculate the installments of this contract. Loan Management uses the schedule type to build the repayment plan with equal installments or linear payments, include fees on the schedule and arrive to the day basis to be used for interest calculation (30/360).
  - **Contract Period** - Edit the term of the contract that was automatically completed with the number defined at banking product level, according to your needs. The contract period is used together with Contract Period Type and Periodicity Type. They all need to be in sync and also in sync with the schedule definition itself, and if there are multiple definitions allowed on

the product, make sure to pick those working together.

- **Contract Period Type** - This field is automatically completed with the contract period type as it was defined at banking product level. You can't edit this value.
- **Maturity Date** - This field is automatically completed with the calculated contract maturity date.
- **Initial Principal Value** - This field is automatically completed with the value of the principal within an installment. The field is displayed and can be filled in if the selected schedule type is of type `Equal Principal`. You can edit this value. If at the selected payment schedule type's level the `Installment Value Custom` field is `False`, then the `Initial Principal Value` field at the contract level is read only.
- **Repayment at end of month** - If you select this checkbox, then the due day of the contract is automatically set to the last day of the month, and the repayment schedule is calculated with an installment in the last day of month.

2. Click the **Save and Reload** button.

## 7. Amend Closure Settings

If allowed from the product's service configuration, you can amend the closure settings of the contract, the way Loan Management should behave once any due amounts are repaid and the contract can be closed. Most of the times this is not something that you have to access, but it adds extra flexibility at the contract level. This may prove useful if you suspect there may be reasons to keep a contract open for some time post recovering all amounts for instances when there may appear claims of funds (SEPA DD) or other similar cases.

The **Closure Settings** section is only displayed for contracts based on banking products with [service configurations](#) having the `Closing Is Flexible = True` setting.

Closure Settings

Automatic Closure <input checked="" type="checkbox"/>	Real Time Closure <input checked="" type="checkbox"/>	Buffer Close Days <input type="text" value="0"/>	Balance Off Date <input type="text"/>	Closure Date <input type="text"/>
--	--	---	--	--------------------------------------

To amend the closure settings brought from product service configuration level here at the contract level:

1. Fill in or modify the following fields:
  - **Automatic Closure** – If selected, Loan Management automatically closes the contract once all other conditions are met. This field is automatically completed with the value defined at the product service configuration level, but you can modify it.
    - Select this checkbox to instruct Loan Management to close the contract automatically when the available amount becomes zero and there are no further amounts to be recovered, and after the number of days set as buffer before closure pass and  $\text{Closure Date} = \text{Current Date}$ .
    - Deselect it to instruct Loan Management to keep the contract open, regardless of the fulfillment of its maturity and balance criteria, waiting to be manually closed by changing its status to Closed.

#### NOTE

You can perform contracts events as specified in the **Allowed Transactions** section of the banking product's service configuration, plus manual closure while the contract is pending closure. Performing any other transactions displays an error message.

- **Real Time Closure** – If you select this checkbox, when the amounts become zero and the product is not a revolving one, the contract is closed automatically. If  $\text{Real Time Closure} = \text{True}$ , then  $\text{Buffer Close Days} = 0$  and  $\text{Automatic}$

Closure = True. For more details about the real-time closure, see [Close Contracts RealTime\(CB\) Job](#).

- **Buffer Close Days** - Enter the number of days used as buffer before automatically closing the contract. If Buffer Close Days > 0, then Real Time Closure = False. Loan Management waits the entered number of days after the contract's balances reach zero, and at the end of that day the contract is closed.
- **Balance Off Date** – This is a system maintained field and it is populated with the date on top of which Loan Management adds the Buffer Close Days to arrive to the Closure Date.
- **Closure Date** – This is a system maintained field and holds the date when the contract is closed. For automatic closure, the date is calculated by Loan Management as Balance Off Date + Buffer Close Days.

2. Click the **Save and Reload** button.

## 8. Check Other Details Pre-Filled Based on Product Definition

Once you defined the mandatory details, then saved and reloaded the contract, Loan Management updates some of the next sections on the page, based on product definitions:

## Contract Participants

[+ Insert](#)
[X Delete](#)
[Export](#)
[Refresh](#)

<input type="checkbox"/>	Participant	Role	Status	Blocking Reason	Block Role Date	Block Disbursement
Q	Q	Q	Q	Q	Q	(All) ▾
	Jane	Beneficiary	Active			▮
	Jane	Borrower	Active			▮

## Contract Tranches

[+ Insert](#)
[X Delete](#)
[Export](#)
[Refresh](#)

Tranche Date	Tranche Percent	Amount	Unusage Commission Per...	Interest Percent	Status	Disbursement Event
Q	Q	Q	Q	Q	Q	Q
No data						

## Fees &amp; Commissions

[+ Insert](#)
[X Delete](#)
[Export](#)
[Refresh](#)

<input type="checkbox"/>	Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
	Commission Applied To Amount	EUR	18/08/2022	10.0000	0.00	Monthly
	CA Administration Fee	EUR	18/08/2022		4.00	Monthly
	Management Fee EUR Monthly	EUR	18/08/2022		10.00	Monthly
	Corporate Loan Term Front-End Fee EUR	EUR	18/08/2022	4.0000	200.00	Once

## Contracts Covenant

[+ Insert](#)
[X Delete](#)
[Export](#)
[Refresh](#)

Type	Covenant	Review Date	End Date	Resolution	Block Disburseme...	Status
Q	Q	Q	Q	Q	(All)	▾ Q
No data						

## Contract Classifications

[+ Insert](#)
[X Delete](#)
[Export](#)
[Refresh](#)

Contract	Code	Name	Classification Type	Valid From	Valid To
----------	------	------	---------------------	------------	----------

Loan Management brings the **Contract Participants**, where you can [add participants](#) to the contract, like Guarantors, Co-Debtors, etc. There may be cases when some roles are mandatory for a product. Those are detailed in a [separate section](#). If there is a mandatory role defined in the banking product definition, Loan Management displays an error on trying to approve the contract.

**Contract Tranches** is a section where you can implement progressive access to the funds. This is valuable in case of loans granted for investment projects where you can know upfront that there is a plan for the project and payments need to happen for each stage of the project, those stages being known from the start.

Another important section brought from the product definition is the **Fees & Commissions**. Depending on the system setup, you are allowed or not to [amend fees and commissions](#) in this section.

**Contract Covenants** section displays the covenants that applicants must abide by after getting the contract, configured at the product level. Such conventions are usually applicable for corporate customers that must meet certain requirements in order to continue to receive disbursements and not only: submit balance sheet every x months, have account turnover of at least x percent from average monthly turnover, provide other relevant documents from authorities. In this section, you can [manage covenants](#) for the contract. These covenants would need to be monitored procedurally; Loan Management doesn't have the logic in place to implement automated processes.

You can use the **Contract Classifications** section to capture various [classifications](#) that might be relevant for the financial institution for that loan at a moment in time. It is a placeholder for such details and there is no automated logic in place to update them. In implementation this can be used for other developments if required.

## 9. (Only for Current Accounts with Overdraft) Define Overdraft Limit Reevaluation Plans

For current account contracts with overdraft functionality, in the **Contract Reevaluation Plans** section, you can define the increase or decrease of the overdraft limit amount and of the customer limit attached to the contract, according to the customer's seasonal needs. For example, for an approved overdraft limit for 12 months, after 6 months the limit has to be decreased because the customer does not need the entire limit and wants to reduce the costs of the overdraft functionality. Similarly, the overdraft limit can be increased, for example for a working capital requirement, the bank can grant the limit in January, but the company works in tourism and the cash flow needs are higher in summer, thus the bank needs to increase the overdraft.

Contract reevaluation plans

[+ Insert](#) [X Delete](#) [Export](#) [Refresh](#)

	Amount	Percentage	Start date	Maturity date
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	-3,000.00		08/09/2022	08/09/2022
	3,000.00		01/11/2022	01/11/2022

[Projection plan](#)

To add a reevaluation plan to a contract based on a current account with overview, follow these steps:

1. Click **Insert** to open the **Contract Reevaluation Plan** page.
2. Fill in the following fields:

Contract Reevaluation Plan

Amount

-3,000

Percentage

Start date

08/09/2022

Periodicity type

Once

Number of times

1

Holiday shift method

Forward

- **Amount** - Enter the amount with which the overdraft limit has to increase or decrease. Use negative values for decrease and positive values for increase. This field cannot be filled in if the Percentage field was completed.
- **Percentage** - Enter the percentage with which the overdraft limit has to increase or decrease. Use negative values for decrease and positive values for increase. This field cannot be filled in if the Amount field was completed.
- **Start date** - Enter the start date when the overdraft limit increase or decrease should be performed.
- **Periodicity type** - Select the periodicity type for applying the overdraft limit increase or decrease. The possible values are: Once, Weekly, Monthly, Bimonthly, 4 Weeks, Trimestrial, Semestrial and Annual.
- **Number of times** - Enter how many times the overdraft limit increase or decrease should be performed.
- **Holiday shift method** - Select the desired holiday shift method from the possible values: Forward or Backward.



3. Click the **Save and Close** button.

When the utilized amount is greater than the resulted available limit, a new repayment schedule detail is added to the repayment notification, displaying the difference between utilized amounts – available limit amount on the Principal column of the notification. The repayment notification notifies the principal amount and tries to collect it.

4. Click the **Projection Plan** button to view the projection of the overdraft limit reevaluation plan. A .pdf file containing a detailed overview of the overdraft limit fluctuations in time is automatically downloaded by your browser.

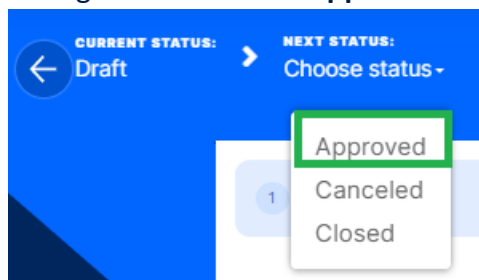
After defining the relevant details of the contract, proceed to **contract approval**.

## Approving a Current Account

You can perform the approval either from a customer journey flow via API integration or from the Loan Management user interface.

After defining the relevant details of the contract, proceed to contract approval:

1. Select a contract in **Draft** (or **Version Draft**) status.
2. Change its status into **Approved**.



- Click **Yes** to confirm your action.

Are you sure that you want to change the business status?

If Loan Management performs all the validations successfully, then the current status of the contract changes to **Approved** and Loan Management automatically generates the current account number, displaying it in the **Main Bank Account** field.

CURRENT STATUS: Approved

NEXT STATUS: Closed

CONTRACT NUMBER

12751

ACTIVATION DATE

09/09/2022

CREATED BY

VERSION

1

VERSION DATE

08/09/2022 03:00

CONTRACT CATEGORY

Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

General Data

Contract ID

Customer

Banking Product

Current Acc w Overdraft

Currency

EUR

Activation Date

09/09/2022

Main Bank Account

FIN000007878

Start Calculation Date For Amount Unused

09/12/2022

Managing Branch

root

Direct Debit Settlement Account

☒

Sales Channel

Assisted Contract

Product Interest Rate

Interest Commission Item

InterestForOverdraft

Product Interest

Fix Eur 5%

Date for Review Interest Rate

09/03/2023

Contract Interest Rate

<input type="checkbox"/>	Interest	Start Date	End Date	Minimum A...	Maximum A...	From Install...	To Installme...	Minim Inter...	Fixed Rate	Margin	Reference R...	Total Interes...	Pa
<input type="checkbox"/>	Fix Eur 5%	09/09/2022	30/09/2024			1	25		6.0000	0.0000	0.0000	6.0000	

Contract Penalty Interest Rate

<input type="checkbox"/>	Name	Start Date	End Date	Fixed Rate	Margin	Reference Rate	Total Interest Rate	Operation Item
<input type="checkbox"/>	Corporate Overdue Inter...	09/09/2022	30/09/2024	10.0000	0.0000	0.0000	10.0000	Loan Interest

Overdraft

Overdraft Limit Amount

12,000

Expire date for Overdraft

28/02/2023

Date for Review Overdraft Interest Rate

Available Amount For Overdraft

12,000

Overdraft Interest

Overdraft Interest

Overdraft Floating BIBOR 6M

## Automated Actions After Contract Approval

The **Main Bank Account** is created automatically for the bank defined as Main within the **Loan Management Operational > Bank** menu. In order for Loan Management to generate an account number, a rule must be defined during the implementation phase (example: branch code + incremental sequence number).

CURRENT STATUS:  
Opened

CURRENCY  
EUR

STATUS  
Opened  
Bank Account

BANK ACCOUNT NO  
FIN000007878

EDIT BANK ACCOUNT

Bank

FintechOS Bank

Currency

EUR

Bank Account Number

FIN000007878

Overdraft Limit Amount

12,000

Customer

Account Type

Current Account

IBAN

Balance

0

Bank Account Operations

Export

Refresh

Account ope...	Value date	Operation date	Amount	Detail text
Q	Q	Q	Q	Q

On the **Payments** tab you can see the repayment schedule that was generated based on the commissions with **Commission Undrawn Amount (overdraft)** type, if any.

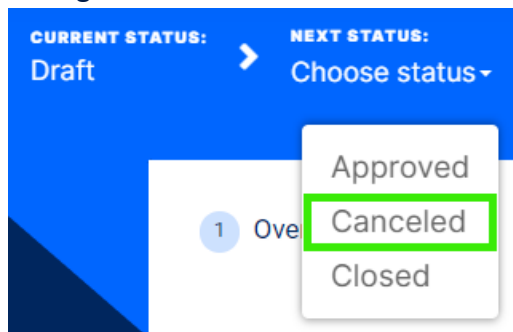
**NOTE** The tab **Payments** has no information to display while the contract is in the **Draft** status. You must approve the contract to perform any contract event. Meaningful payment information is displayed in this tab only after performing transactions on the contract.

## Rejecting a Current Account

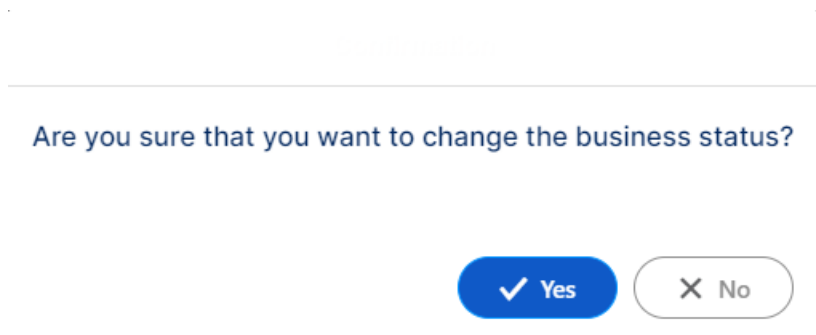
You can reject a current account contract, canceling it, when the deal with the customer drops. You can perform the cancellation either from a customer journey flow via API integration or from the Loan Management user interface.

Follow these steps to cancel the contract:

1. Select a contract in **Draft** (or **Version Draft**) status.
2. Change its status into **Canceled**.



3. Click **Yes** to confirm your action.



If Loan Management performs all the validations successfully, then the current status of the contract changes to **Canceled**.

CURRENT STATUS:  
Canceled

CONTRACT NUMBER  
10378

ACTIVATION DATE  
09/09/2022

CREATED BY  
[redacted]

VERSION  
1

VERSION DATE  
18/07/2022 03:00

CONTRACT CATEGORY  
Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

General Data

Contract ID

Customer

Banking Product

Currency

Activation Date

Main Bank Account

Managing Branch

Direct Debit Settlement Account

Sales Channel

Product Interest Rate

Interest Commission Item

Product Interest

Date for Review Interest Rate

**NOTE** You can't further use a canceled contract. Create a new contract, if you need to.

## Working with Covenants

The covenants are conventions that applicants must abide by after the approval of a contract. Such conventions are usually applicable for corporate clients that must meet certain requirements in order to continue to receive disbursements and not only: submit balance sheet every x months, have account turnover of at least x percent from average monthly turnover, provide other relevant documents from authorities. Covenants are configured at the product level.

While creating a contract, Loan Management brings the covenants to the contract level, in the **Contract Covenant** section of the **Overview** tab. There you also add, delete or export covenants for the contract.

### Contracts Covenant

<input type="checkbox"/>	Type	Covenant	Review Date	End Date	Resolution	Block Disbursem...	Status
<input type="checkbox"/>	Q	Q	Q	📅 Q	📅 Q	(All)	▼ Q
<input type="checkbox"/>	Affirmative	Borrowers should perform tax obligations	31/08/2022		Insolvency	<input checked="" type="checkbox"/>	Breached

Upon adding a covenant to a contract, you must activate it. After approving the contract, when it reaches the covenant's review date, you must perform the review of the covenant. If the conditions are not met, then you can mark the covenant for blocking further disbursements of the contract. Further implementation is needed if you want automatic processes to take care of contracts with breached covenants.

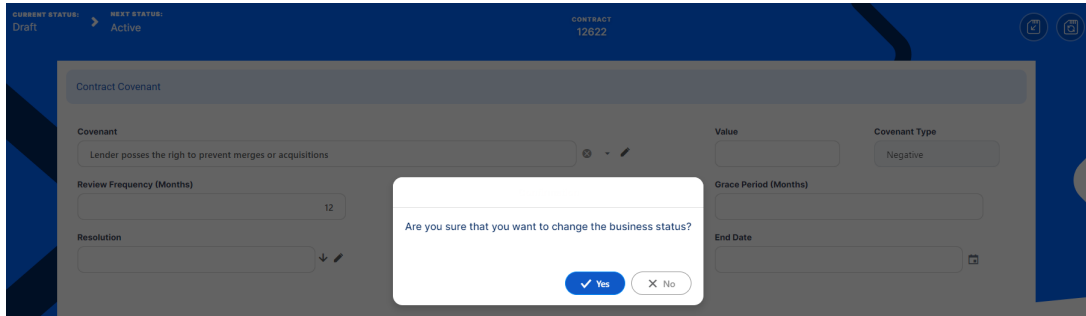
## Adding & Activating Covenants

1. To add a covenant to a contract, click **Insert** in the **Contracts Covenant** section of a contract in **Draft** or **Version Draft** status.
2. On the newly displayed **Contract Covenant** page, fill in the following fields:

- **Covenant** - Select the desired covenant from the list of possible values:
  - **Borrowers should perform tax obligations:** the lenders expect the borrowers to perform their tax obligations to both the business and towards their employees. This covenant is of type affirmative.
  - **Lender can monitor borrower's current ratio:** the lender may continuously monitor the borrower's current ratio to ensure it stays relatively attractive and promising. This covenant is of type financial.
  - **Lender posses the right to prevent merges or acquisitions:** a clear stipulation that the lender possesses the right to prevent merges of acquisitions without proper notification or full knowledge of the process. This covenant is of type negative.
 

Loan Management automatically fills in the covenant type.
- **Value** - Enter the numeric value of the covenant, if applicable.
- **Review Frequency (Months)** - Enter the number of months after which the covenant has to be reviewed.
- **Review Date** - Enter the date when the covenant has to be reviewed.

3. Click the **Save and Reload** button. The covenant is displayed in the list of covenants in the **Contracts Covenant** section, in Draft status.
4. Activate the covenant record by changing its status to **Active** and confirming your action.

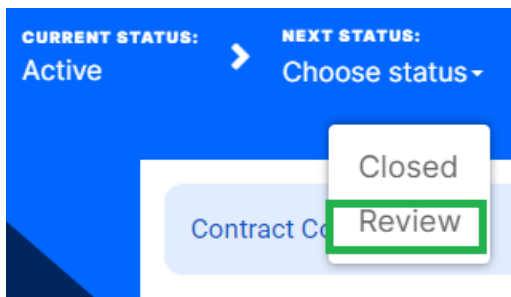


5. Click the **Save and Close** button. The covenant's status changes to Active.

## Reviewing Covenants

Loan Management allows you to add details about the process of reviewing a covenant for an approved contract.

1. To review an active covenant for an approved contract, double-click the desired covenant in the **Contracts Covenant** section of the contract's Overview tab.
2. On the newly displayed **Contract Covenant** page, change the covenant's status to **Review** and confirm your action.



The covenant's status changes to Review and the page reloads with new fields.

3. Fill in the following fields with the results of the covenant review process:

**Contract Covenant**

**Covenant**  
Lender possesses the right to prevent mergers or acquisitions

**Review Frequency (Months)**  
12

**Review Date**  
31/08/2022

**Resolution**  
Insolvency

**Resolve Date**  
01/09/2022

**End Date**

**Grace Period (Months)**

**Value**

**Covenant Type**  
Negative

**Start Early Termination**  
☐

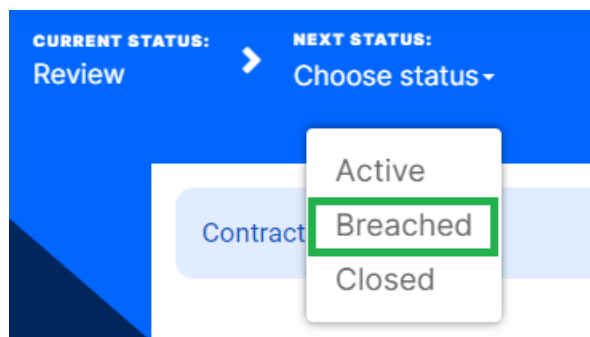
**Block Disbursement**  
☒

- **Grace Period (Months)** - Enter a grace period in month for the fulfillment of the covenant, if needed.
- **Resolution** - Select from the list the actual resolution of the covenant. Add a new covenant resolution, if you can't find a match in the list.
- **Resolve Date** - Enter the date when the covenant is considered as resolved.
- **End Date** - Enter an end date for the covenant, if needed.
- **Start Early Termination** - If the covenant's terms are not met, then you can check this field to mark the covenant for contract early termination.
- **Block Disbursement** - If the covenant's terms are not met, then you can check this field to mark the covenant for blocking further disbursements of the contract.

4. Click the **Save and Reload** button.

5. If the covenant's terms are met, change the covenant's status to **Active** and confirm your action.

If the covenant's terms are not met, change the covenant's status to **Breached** and confirm your action.





6. Click the **Save and Close** button. The covenant's status changes to **Active** or **Breached**, according to your previous choice.

**NOTE** Further implementations are needed in order for Loan Management to manage contracts with breached covenants if you need actions enforced at the contract level.

# Working with Participants

The participants to a contract are those legal or individual persons who have a role to play during the life-cycle of the contract. They can be the person who borrows the funds, the actual beneficiary of the funds, the company administrator of the legal person, a notary, and so on. Another example are the agents, brokers, insurers, or merchants who participate in contracts as third-party entities, and they may get commissions according to third-party agreements. They must be recorded in contracts as contract participant with the specified role in order to qualify for the commissions stated in the agreement pricing records added to an agreement.

While creating a contract, Loan Management automatically populates the **Contract Participants** section within the **Overview** tab of the contract with the customer's information as both Borrower and Beneficiary of the funds, for loan contracts. If the customer is a legal entity, all the company's already entered legal representatives such as administrators, affiliates, owners, or other key contact persons are displayed in this list. In the **Contract Participants** section, you can [add other participants](#) to the contract, like Guarantors, Co-Debtors, etc, even after approval, delete, [block](#), or export customers who participate in a contract.

Contract Participants

+ Insert

x Delete

Export

Refresh

<input type="checkbox"/>	Participant	Role	Status	Blocking Reason	Block Role Date	Block Disbursement
	Q	Q	Q	Q	Q	📅 (All) ▾
	Jane	Beneficiary	Active			▪
	Jane	Borrower	Active			▪

There may be cases when some roles are mandatory for a product. If there is a mandatory role defined in the [banking product's service configuration](#), Loan Management displays an error on trying to approve the contract without a customer mentioned in the contract with that specific role.

#### Mandatory Roles for Contract Approval

+ Insert
X Delete
📄 Export
🔄 Refresh

☐
Role

Search Limit

(All)
▼

🔍

(All)
▼

Beneficiary

## Adding Participants

1. To add a participant, click **Insert** in the **Contract Participants** section of contract in Draft, Version Draft, or Approved status.
2. On the newly displayed **Participant** page, fill in the following fields:

Participant

Participant

Role

Blocking Reason

Participant

Merchant

Select...

- **Participant** - Select from the list the name of the customer who can access the contract.
- **Role** - Select from the list the role in the contract of the previously selected customer.
- **Blocking Reason** - Leave this empty if you don't want to limit the customer's access to the contract.

3. Click the **Save and Close** button.

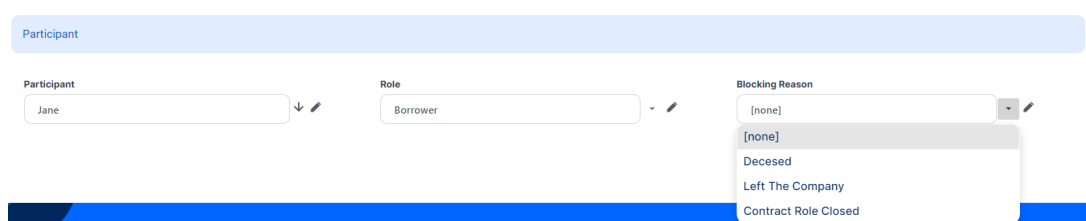
### IMPORTANT!

For legal entity customers, add the participant with the **Company Administrator** role, otherwise, the loan contracts cannot be approved. This is not the case for current account contracts.

## Blocking Participants

If you need to block an existing participant's access to the contract for various reasons, such as the person left the company who is the beneficiary of the contract, follow these steps:

1. Double-click an existing participant in the **Contract Participants** section of contract in Draft, Version Draft, or Approved status.
2. On the displayed **Participant** page, in the **Blocking Reason** field, choose the reason for blocking the selected participant from accessing the contract.



The screenshot shows the 'Participant' page with three main fields: 'Participant', 'Role', and 'Blocking Reason'. The 'Participant' field contains the name 'Jane'. The 'Role' field contains 'Borrower'. The 'Blocking Reason' field is open, showing a dropdown menu with the following options: '[none]', 'Deceased', 'Left The Company', and 'Contract Role Closed'.

3. In the **Block Role Date** field, select the starting date for blocking the participant's access to the contract.
4. Select the **Block Disbursement** checkbox to instruct Loan Management to stop disbursements on the contract, if needed.
5. Click the **Save and Close** button.

## Working with Contract Classification

Financial institutions may classify their contracts for organization purposes, or to mark some contracts as to belonging to a specific category or another. Loan Management brings the classifications defined at the product level to the contract level when creating a contract.

### NOTE

For information about the **automatic loan classification** performed by Loan Management based on DPD, please read the ["Loan Classification" on page 56](#) topic.

You can manage a contract's classification within the **Contract Classifications** section on the **Overview** tab. Here you can insert, delete or export classifications for the contract.

#### Contract Classifications

[+ Insert](#) [X Delete](#) [Export](#) [Refresh](#)

<input type="checkbox"/>	Contract	Code	Name	Classification Type	Valid From	Valid To
	Q	Q	Q	Q	Q	Q
	12669	REG1	Classification Regulatory	Regulatory	01/01/2020	31/12/2030

## Adding Classifications to a Contract

1. To add a classification to a contract, click **Insert** in the **Contract Classifications** section of a contract.
2. On the newly displayed **Add Contract Classification** page, fill in the following fields:

ADD CONTRACT CLASSIFICATION

Contract Classification

Classification

REG1

↓

✎

Contract

12669

↓

✎

Description

This contract falls under the REG1 classification.

- **Classification** - Select the desired classification for the contract from the list of classifications associated with the banking product.
  - **Description** - Enter a description for the contract classification.
3. Click the **Save and Close** button.

## Applying Fees and Commissions

The financial institutions take commissions and fees for offering a product or service such as opening an account, for cash withdrawals, for transfers, for making payments in certain countries, for exchanging currencies, for emitting debit cards, for handling documents etc. These commissions are set at the product level and vary from institution to institution, based on their policy.

In the **Fees & Commissions** section within the **Overview** tab of the contract, you can view all the fees and commissions configured at the product level that have the **Automatic Load on Contract** checkbox set to **True**. After the first saving operation, Loan Management display all the fees that are defined as values. The fees

defined as percentages are displayed after completing all the values of the contract. Read more about the commissions automatically inserted and calculated in the [below section](#). You can also [add](#), delete or export fees and commissions for the contract.

## Fees &amp; Commissions

[+ Insert](#) [x Delete](#) [Export](#) [Refresh](#)

<input type="checkbox"/>	Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
	BNPL SLICE 5RON	RON	24/09/2022		5.00	30Days
	Slice UpFront Fee	RON	24/09/2022	0.5000	25.00	Once

## Automatic Insertion and Calculation of Commissions

Loan Management automatically inserts/ updates commissions in the **Fees & Commissions** section depending on the life cycle and status of the contract:

- Creating a new contract:** Loan Management automatically inserts active commissions associated to the banking product, within their defined validity period, with Automatically load on contract = True, with Is For Unusage = False, and Commission value is percentage = False.  
 If Commission value is percentage = True, then the commission is only inserted if the amount value was previously inserted.
- Updating a contract in Draft status:** Loan Management automatically inserts active commissions associated to the banking product, within their defined validity period, with Automatically load on contract = True, with Is For Unusage = False. If a commission with Commission value is percentage = True was already inserted, then the commission's value is updated according to the contract's financed amount. If the value of a commission with Commission value is percentage = True was manually modified (for negotiable commissions), then the new value is calculated based on the modified percentage.
- Creating a new version for a contract:** Loan Management automatically inserts all the commissions already present in the contract. Additionally, all commissions specifically created for contract version (Is For Contract Version = True) are added as well.

**NOTE**

If a version for a contract is created more than once on the same day, then all commissions with `Is For Contract Version = True` that were not notified yet for each previous version are deleted. At the end of the day, there is only one commission for the latest version.

- **Updating a contract in Contract Version Draft status:** Loan Management only updates the percentage commissions that are not already notified.

For percentage commissions (with `Commission value is percentage = True`), the financed amount of the contract is used to calculate the commission value based on the percentage. The calculation method differs depending on the contract type:

- For contracts based on **Term Loan, Mortgage** or **Overdraft** banking products:
  - If the commission is applied to amount, then the financed amount = amount due;
  - If the commission is applied to financed amount, then the financed amount = amount due - advance amount;
  - If the commission is applied to remaining value and the contract is in **Contract Version Draft** status, then financed amount =  $(-1) * \text{main bank account balance}$ . If the result is a negative value, then financed amount = null. In all the other cases, financed amount = null, which is the default value.
- For contracts based on **Bank Account with Overdraft** banking products:
  - If the commission is applied to overdraft limit amount, then the financed amount = overdraft limit amount;

- If the commission is applied to used amount and the commission's period type is Once, then the financed amount = overdraft limit amount - available amount for overdraft. In all the other cases, financed amount = null, which is the default value.

## Adding Fees

1. To add a fee for this contract, click **Insert** in the **Fees & Commissions** section of a contract in Draft or Version Draft status.
2. On the newly displayed **Contract Fee** page, fill in the following fields:

The screenshot shows the 'Contract Fee' form with the following fields and values:

Field	Value
Contract	12621
Currency	RON
Fee	Slice UpFront Fee
Periodicity Type	Once
Fee Date	23/08/2022
Percent Fee	0.5
Value Fee	25

- **Fee** - Select a commission from the list of commissions defined for the banking product used when creating the contract.
  - **Fee Date** - Specify which value of the commission is to be used by selecting the date of the commission.
3. Optionally, check the rest of the fields, automatically filled in by Loan Management: contract number, currency, periodicity type of the selected fee, the fee percentage or value applicable for the selected date. You can't change these values.
  4. Click the **Save and Close** button.

## Working with Documents

Loan Management allows you to manage all the documents related to a contract in one place, in the contract's **Contracts & Documents** tab. The tab is meant to be the electronic folder of the contract. It displays a list of the document records for the current contract, with details such as document name, type, status, number, whether

the record was added through the user interface (`Is manual = True`) or through API integration (`Is manual = False`), and download options for the attached files. Contract documents have a dedicated business workflow, thus you can transition them through a series of [statuses](#).

1 Overview	2 Payments	3 Contracts & Documents	4 History	5 Accounting Entries
------------	------------	-------------------------	-----------	----------------------

Contract Document

[+ Insert](#)

<input type="checkbox"/>	Document n...	Document type	Status	Number	Is manual	Document options
	8588 - Incom...	Income Statement	Draft		<input checked="" type="checkbox"/>	<a href="#">Initial document</a> <a href="#">Signed document</a> <a href="#">Cancel</a>
	8588 - Terms...	TermsAndConditions	Draft		<input checked="" type="checkbox"/>	<a href="#">Initial document</a> <a href="#">Signed document</a>

In the **Contracts & Documents** tab, you can: [add a new contract document record](#), edit or delete a record in **Draft** status, view the details for records in **Signed** or **Canceled** status, or download the initial or the signed document, if it exists, by clicking the **Initial document**, respectively the **Signed document** button next to the record. Open the downloaded file to view its content.

### NOTE

Users with the associated predefined security roles of [Corporate Credit Officer](#) and [Retail Credit Officer](#) can perform contract document-related operations such as adding, updating, and deleting records or changing their statuses.

## Contract Document Statuses

A contract document record has the following statuses, visible in the top left corner of the **Add Contract Document** page, after saving the record:

- **Draft** - the status of a newly created contract document record that was not yet authorized (marked as **Signed**). While in this status, you can edit some fields and you can delete the uploaded documents. Change its status to **Signed** after editing all the necessary details and uploading the Signed Document file. Change its status to **Canceled** if the document is not to be used within the contract.
- **Signed** - the status of a contract document record after being authorized. You cannot edit any of the record's details. You can change the status of the record to **Canceled**, if needed.



- **Canceled** - the status of a contract document after being canceled. Once **Signed**, a contract document should be canceled if the document is not to be used within the contract. You cannot edit any of the record's details. There is no further transition from this status. Contract document records created through integration (having their `Is manual` field = `False`) can't be canceled.

## Adding Contract Documents

1. To insert a document to the contract, click the **Insert** button in the **Contract Document** section.  
The **Add Contract Document** page is displayed, with the **Document Name** field automatically completed with the name of the document.

### NOTE

You can't add documents to contracts in **Contract Closed** or **Contract Version Closed** statuses.

2. Fill in the following fields:

- **Document type** - Select the type of the document.
- **Description** - Enter the description of the document.
- **Number** - Enter the number of the document, if the document has an external identifier number.
- **Initial document** - Insert the file containing the initial, unsigned document.  
Click the **Select file** button under this field, navigate to the desired file,

select it and click **Open**. The selected file's name is displayed here. You can delete it by clicking the **x** next to the file name.

- **Signed Document** - Insert the file containing the final, signed document, if available.

Click the **Select file** button under this field, navigate to the desired file, select it and click **Open**. The selected file's name is displayed here. You can delete it by clicking the **x** next to the file name.

#### NOTE

To change the status of the contract document record to **Signed**, a signed document file must exist within the record.

3. Click the **Save and Close** button.

#### NOTE

You can also add, update, and approve contract document records through API integration, using the `AddUpdateContractDocument` and `ApproveContractDocument` endpoints. Read more details in the [Loan Management Developer Guide](#).

Contract document files added through integration cannot be deleted and those records can't be canceled!

## Automatic Contract Document Validations

Loan Management performs the following validations for contract document records:

- The uploaded files' specifications follow FintechOS Platform's settings and restrictions regarding size and format, allowing .pdf,.doc,.docx,.xls,.jpg,.jpeg,.xlsx,.dll,.ppt,.pptx,.txt,.png,.ttf,.xml file formats.
- If the contract document record is in **Signed** status, the record can't be deleted or updated, nor can its files be deleted.

- The name of the contract document record is unique, automatically generated by Loan Management. The naming convention is "the contract name + '-' + the selected document type + '-' + a unique document increment". For example, 5203 - Income Statement - 60.
- The names of the selected files are not validated for uniqueness.

## Performing Transactions on Current Accounts

You can find all the existing transactions, payments, penalties, bank account operations, repayment schedules, schedule versions, repayment notifications for a contract on the **Payments** tab. The tab has no information to display for contracts in **Draft** status. Approve the contract to perform any transactions on the contract.

CURRENT STATUS: Approved

NEXT STATUS: Closed

CONTRACT NUMBER

12755

ACTIVATION DATE

09/09/2022

CREATED BY

VERSION

1

VERSION DATE

09/09/2022 03:00

CONTRACT CATEGORY

Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12755	09/09/2022	09/09/2022 15:09

Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10083	Top Up Account	Approved	11/10/2022	1.00	
	ECB10080	Withdraw	Approved	09/09/2022	10,000.00	

Repayment Notifications

+ Insert

Refresh

<input type="checkbox"/>	No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status
	Q	Q	Q	Q	Q	Q	Q	Q
	70430		09/11/2022	EUR	1.25	1.25	09/11/2022	PendingRecover
	70187		10/10/2022	EUR	1.25	1.25	10/10/2022	PendingRecover

Penalties

Export

Refresh

PenaltyDate	PenaltyAmount	Paid	NotificationNo
Q	Q	(All)	Q

The following sections show you how to perform the usual transactions available on current account contracts:

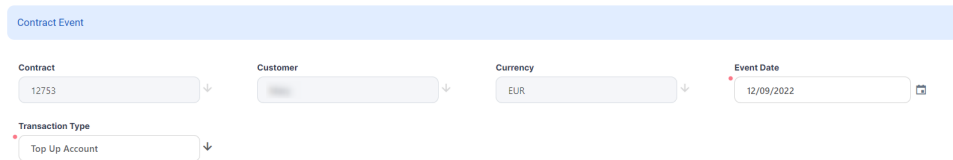
## Topping Up an Approved Contract

A top-up transaction represents adding amounts to the account before the value drains down to zero.

You can add top-up transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a top-up transaction to a contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.



3. Fill in the following fields:
  - **Event Date** - This is pre-filled with the current date.
  - **Transaction Type** - Select from the list the **Top Up Account** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.

The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. The account's actual balance is automatically calculated, and you can't edit

it.

The screenshot shows the 'TopUp' form in the Loan Management system. The form is titled 'TopUp' and has a blue header bar. The header bar contains the following information: CURRENT STATUS: Draft, NEXT STATUS: Choose status+, CUSTOMER: [redacted], CONTRACT NUMBER: 12753, TRANSACTION NUMBER: EC810085, TRANSACTION TYPE: Top Up Account, and CURRENCY: EUR. The form itself has a light blue background and contains several input fields. There are two buttons at the top: 'Go to contract' and 'Go to customer'. The form fields are: Actual Balance (9,997.5), Event Date (12/09/2022), External Identifier (empty), Event Value (empty), and Source Account (empty). There are red asterisks next to the Event Value and Source Account fields, indicating they are required.

5. Fill in the **external identifier** of the transaction, if available.
6. In the **Event Value** field, enter the amount that is added to the account.
7. Enter the **Source Account** for the respective amount, the account from where the funds are taken to perform the top-up.

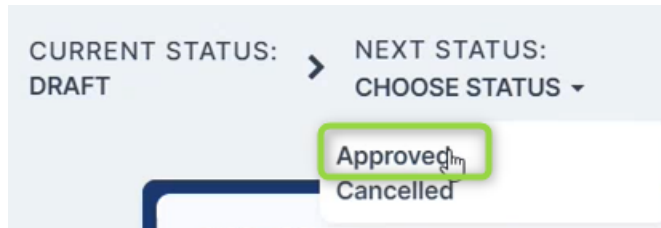
This screenshot shows the 'TopUp' form after some data has been entered. The 'Actual Balance' remains 9,997.5 and the 'Event Date' is still 12/09/2022. The 'External Identifier' field is still empty. The 'Event Value' field now contains the value 2,000. The 'Source Account' field now contains the value FIN1234567890. The red asterisks next to the Event Value and Source Account fields are still present.

### NOTE

Loan Management actually uses the financial institution's reconciliation account as a source bank account.

8. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.

9. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.



10. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management applies the transaction to the contract, moving the funds specified in the event value from the source account into the current account.

The transaction is visible in the **Transactions** section.

1 Overview	2 Payments	3 Contracts & Documents	4 History	5 Accounting Entries
------------	------------	-------------------------	-----------	----------------------

Contract Repayment Schedule		
<input type="checkbox"/> Contract	Date Schedule	Modified On
12753	08/09/2022	08/09/2022 17:26

Transactions					
<a href="#">+ Insert</a>					
<input type="checkbox"/> Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
ECB10085	Top Up Account	Approved	12/09/2022	2,000.00	

## NOTE

For approved transactions on current accounts, Loan Management updates the repayment schedule when running the [End of Day job](#) on the last day of the month.

11. View the balance of the account after approving the transaction, clicking the pencil icon next to the **Main Bank Account** field in the contract's **Overview** tab:

1 Overview
2 Payments
3 Contracts & Documents
4 History
5 Accounting Entries

General Data

Contract ID

Customer

Banking Product

Currency

Activation Date

Main Bank Account

CURRENT STATUS: Opened

CURRENCY: EUR

STATUS: Opened

BANK ACCOUNT NO: FIN000007876

EDIT BANK ACCOUNT

Bank

Currency

Bank Account Number

Overdraft Limit Amount

Customer

Account Type

IBAN

Balance

Bank Account Operations

Export

Refresh

Account operation type	Value date	Operation date	Amount	Detail text
Debit Bank Account	11/11/2022 14:32	11/11/2022 14:32	1.25	12753installment 2
Debit Bank Account	11/10/2022 15:20	11/10/2022 15:20	1.25	12753installment 1
Credit Bank Account	12/09/2022 14:14	12/09/2022 14:14	2,000.00	top up credit account

## NOTE

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

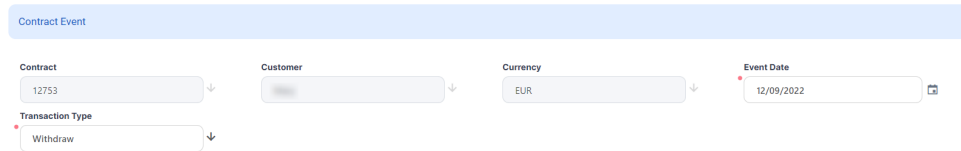
# Withdrawing Funds from an Approved Contract

A withdrawal transaction represents removing funds from a bank account.

You can add withdrawal transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a withdrawal transaction to a contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.



3. Fill in the following fields:
  - **Event Date** - This is pre-filled with the current date.
  - **Transaction Type** - Select from the list the **Withdraw** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. The account's actual balance is automatically calculated, and you can't edit it.
5. Fill in the **external identifier** of the transaction, if available.
6. In the **Event Value** field, enter the amount that is removed from the account.
7. Enter the **Destination Account** for the respective amount, the account where the funds are being moved to.



Withdraw

Go to contract Go to customer

Actual Balance 10,000

Event Value 1,000

Event Date 12/09/2022

Destination Account FIN123456789

External Identifier

CURRENT STATUS: Draft NEXT STATUS: Choose status+

CUSTOMER CONTRACT NUMBER 12753 TRANSACTION NUMBER ECB10086 TRANSACTION TYPE Withdraw CURRENCY EUR

## NOTE

Loan Management actually uses the financial institution's reconciliation account as a destination bank account.

8. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
9. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

CURRENT STATUS: DRAFT NEXT STATUS: CHOOSE STATUS

Approved

Cancelled

10. Confirm the change of status in the **Confirmation** window, clicking **Yes**. The event is now in **Approved** status and Loan Management applies the transaction to the contract, removing the funds specified in the event value from the current account.

The transaction is visible in the **Transactions** section.

- 1 Overview
- 2 Payments
- 3 Contracts & Documents
- 4 History
- 5 Accounting Entries

Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12753	08/09/2022	08/09/2022 17:26

Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10085	Top Up Account	Approved	12/09/2022	2,000.00	
	ECB10086	Withdraw	Approved	12/09/2022	1,000.00	

NOTE

For approved transactions on current accounts, Loan Management updates the repayment schedule when running the [End of Day job](#) on the last day of the month.

11. View the balance of the account after approving the transaction, clicking the pencil icon next to the **Main Bank Account** field in the contract's **Overview** tab:

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounts

General Data

Contract ID

Customer

Banking Product

Currency

Activation Date

Main Bank Account

CURRENT STATUS: Opened

CURRENCY EUR

STATUS Opened

BANK ACCOUNT NO FIN000007876

EDIT BANK ACCOUNT

Bank

Currency

Bank Account Number

Overdraft Limit Amount

Customer

Account Type

IBAN

Balance

Bank Account Operations

Export

Refresh

Account operation type	Value date	Operation date	Amount	Detail text
Credit Bank Account	12/09/2022 14:14	12/09/2022 14:14	2,000.00	top up credit account
Debit Bank Account	12/09/2022 15:27	12/09/2022 15:27	1,000.00	Withdraw - debit current account
Debit Bank Account	11/10/2022 15:20	11/10/2022 15:20	1.25	12753installment 1
Debit Bank Account	11/11/2022 14:32	11/11/2022 14:32	1.25	12753installment 2

## NOTE

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Transferring Funds between the Customer's Accounts

A transfer between my bank accounts transaction represents the process of moving funds between the same customer's bank accounts.

You can add transfer transactions to an approved contract via Loan Management's user interface or through API calls, using the Loan Management endpoints. Read more about these endpoints in the [Loan Management Developer Guide](#).

In order to add a transfer transaction to a contract through the menus available in Loan Management, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and click the **Insert** button above the **Transactions** section. The **Event** page is displayed.

3. Fill in the following fields:
  - **Event Date** - This is pre-filled with the current date.
  - **Transaction Type** - Select from the list the **Transfer between my bank accounts** transaction type. If you can't find it, then the transaction type is not associated with the banking product's service configuration.

Other values are automatically completed: contract, customer, and currency.

4. Click the **Save and Reload** button.  
The event is saved in **Draft** status and a transaction number is automatically generated for it. The **Edit Contract Event** page corresponding to the selected transaction type is displayed. The account's actual balance is automatically calculated, and you can't edit it.
5. Fill in the **external identifier** of the transaction, if available.
6. In the **Event Value** field, enter the amount that is added to the account.

7. Select the **Destination Account** where the respective amount should be transferred into. You can choose from the list of accounts that belong to the contract's customer and have the same currency.

8. Click the **Save and Reload** button.  
If the event value meets the business requirements defined within Loan Management, the event is saved. Otherwise, an error message appears. Change the values as instructed in the message and try saving the event again.  
While the event is in **Draft** status, you can modify all the event's fields except **Transaction Type**. The event value is not applied to the contract while the event is still in this status.
9. Approve the event by changing its status to **Approved** in the upper left corner of the **Event** page.

10. Confirm the change of status in the **Confirmation** window, clicking **Yes**.  
The event is now in **Approved** status and Loan Management applies the transaction to the contract, moving the funds specified in the event value from the current account into the destination account of the same customer.  
The transaction is visible in the **Transactions** section.

1 Overview 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

## Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12753	08/09/2022	08/09/2022 17:26

## Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10085	Top Up Account	Approved	12/09/2022	2,000.00	
	ECB10086	Withdraw	Approved	12/09/2022	1,000.00	
	ECB10087	Transfer between my bank accounts	Approved	12/09/2022	3,000.00	

## NOTE

For approved transactions on current accounts, Loan Management updates the repayment schedule when running the **End of Day job** on the last day of the month.

11. View the balance of the account after approving the transaction, clicking the pencil icon next to the **Main Bank Account** field in the contract's **Overview** tab:

1 Overview
2 Payments
3 Contracts & Documents
4 History
5 Accr

General Data

Contract ID

Customer

Banking Product

Currency

Activation Date

Main Bank Account

CURRENT STATUS: Opened

CURRENCY: EUR

STATUS: Opened

BANK ACCOUNT NO: FIN000007876

EDIT BANK ACCOUNT

Bank

Currency

Bank Account Number

Overdraft Limit Amount

Customer

Account Type

IBAN

Balance

Bank Account Operations

Export

Refresh

<input type="checkbox"/>	Account operation type	Value date	Operation date	Amount	Detail text
	Credit Bank Account	12/09/2022 14:14	12/09/2022 14:14	2,000.00	top up credit account
	Debit Bank Account	12/09/2022 15:27	12/09/2022 15:27	1,000.00	Withdrawal - debit current account
	Debit Bank Account	12/09/2022 15:47	12/09/2022 15:47	3,000.00	Transfer
	Debit Bank Account	11/10/2022 15:20	11/10/2022 15:20	1.25	12753 installment 1
	Debit Bank Account	11/11/2022 14:32	11/11/2022 14:32	1.25	12753 installment 2

## NOTE

All existing versions of the contract in **Contract Version Draft** status are automatically changed to **Contract Version Closed** when a payment event is approved for that contract.

## Processing Overdraft Repayments

Based on defined product pricing and established parameters, financial institutions can manage the billing and collection process on a current account with overdraft contract fully automatically. Once the withdraw from the overdraft amount is performed, Loan Management keeps track of the amounts and on the end of the

month it updates the repayment schedule and generates underlying notifications. When generating the notification, the system checks if the amounts are fully or partially available on the overdraft and uses them to settle the notification. Otherwise, the amounts are pending recovery on the notification. They will be recovered if and when the amounts are available on the account. If funds are not available, overdue amounts and days are calculated and penalties applied. Read about repayment notifications in the [Managing Repayment Notifications](#) topic.

Once a current account with overdraft approved and used, you can check the repayment schedule built based on contract details, on the **Payments** tab's **Contract Repayment Schedule** section, as described in the [Viewing a Contract's Repayment Schedule](#) topic.

When the system reaches the dates that appear on schedule projections, the amounts resulting are made due, and Loan Management automatically triggers the notifications. Depending on the availability of funds in the current account and the [direct debit setup](#), Loan Management settles those notifications, marking them with the **Recovered status**. Any amount that is not recovered on due date stays on the notification, and when funds become available, Loan Management automatically recovers and allocates them to the pending notifications based on the **Payment Allocation Method** setup at the product service configuration level. When the notifications are recovered, you can see the underlying debit transactions on the bank account – there is always such traceability of the funds.

[Payment Schedule Types](#), defined at the Product Factory level, define how Loan Management handles the following:

- How the overdraft interest is calculated (day basis: 30/360, actual/ 360, etc).
- Fees you want to include in the repayment schedule.
- Frequency of the installment (monthly, every 30 days, etc).

When amounts are not available to cover notified amounts and there is a penalty interest defined for the product, the missed amounts are subject to automatic penalty calculation. Loan Management calculates and notifies the penalty interest daily. All the penalties applied by automated processes at the contract level are visible on the **Payments** tab, in the **Penalties** section, as described in the [Viewing a Contract's Penalties](#) topic. When the penalty interest is defined, there are specific [Operation Items](#) linked to it so that the system knows what types of amounts are subject to



penalty: overdue principal, interest, commissions. Alternatively, the penalty interest can be applied to all missed payments. Penalty interest is defaulted from the product level and, if allowed, it can also be amended at contract level.

Is Penalty ☒ Is General ☐ Applied To Loan Item (if Overdue)

You can find all the existing [transactions](#), payments, penalties, bank account operations, repayment schedules, schedule versions, repayment notifications for a contract on the **Payments** tab. The tab has no information to display for contracts in **Draft** status. Approve the contract to perform any transactions on the contract.

CURRENT STATUS: Approved

NEXT STATUS: Closed

CONTRACT NUMBER

12755

ACTIVATION DATE

09/09/2022

CREATED BY

VERSION

1

VERSION DATE

09/09/2022 03:00

CONTRACT CATEGORY

Normal

1 Overview

2 Payments

3 Contracts & Documents

4 History

5 Accounting Entries

Contract Repayment Schedule

<input type="checkbox"/> Contract	Date Schedule	Modified On
12755	09/09/2022	09/09/2022 15:09

Transactions

+ Insert

<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10083	Top Up Account	Approved	11/10/2022	1.00	
	ECB10080	Withdraw	Approved	09/09/2022	10,000.00	

Repayment Notifications

+ Insert Refresh

<input type="checkbox"/>	No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status
	70430		09/11/2022	EUR	1.25	1.25	09/11/2022	PendingRecover
	70187		10/10/2022	EUR	1.25	1.25	10/10/2022	PendingRecover

Penalties

Export Refresh

PenaltyDate	PenaltyAmount	Payed	NotificationNo
		(All)	

## Managing a Contract's Transactions

Contract transactions are events/ changes performed at the **Approved** contract's level. Such events are [top-ups](#), [withdrawals](#), and [transfers between the customer's accounts](#). Read more information about the available

transaction types in the ["Transaction Types Used in Loan Management"](#) on [page 89](#) topic.

The **Transactions** section within the **Payments** tab holds all the transactions performed at the contract level, in any status. This section only has information if the contract is in **Approved** status and transactions were already created.

Transactions

<a href="#">+ Insert</a>						
<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
	ECB10083	Top Up Account	Approved	11/10/2022	1.00	
	ECB10080	Withdraw	Approved	09/09/2022	10,000.00	

## Event Statuses

An event (transaction) record has the following statuses, visible in the top left corner of any **Event** page:

- **Draft** - the status of a newly created event record that was not yet sent for approval. The event value is not applied to the contract while the event is still in this status. While in this status, you can edit some fields. Approve after editing all the necessary details.
- **Approved** - the status of an event record after being authorized. The event value is applied to the contract and you cannot edit any of the event's details. There is no further transition from this status.
- **Canceled** - the status of an event record after being canceled. The event value is not applied to the contract and you cannot edit any of the event's details. There is no further transition from this status.

### NOTE

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Viewing Existing Events

To view the events on a contract, follow these steps:

1. In FintechOS Portal, select a contract with **Approved** status and double-click to open it.
2. Navigate to the contract's **Payments** tab and view the list of events displayed in the **Transactions** section.

### Transactions

+ Insert						
<input type="checkbox"/>	Name	Transaction Type	Business Status	Event Date	Event Value	Created by user
<input type="checkbox"/>	ECB10083	Top Up Account	Approved	11/10/2022	1.00	
<input type="checkbox"/>	ECB10080	Withdraw	Approved	09/09/2022	10,000.00	

Here you can see only basic information about the transactions, such as event number, status, date, transaction type, value and the user who created it.

3. To view detailed information about the transaction, double-click the event record to open the **Event** page:

Withdraw

Go to contract Go to customer

Actual Balance 1

Event Date 09/09/2022

External Identifier

Event Value 10,000

Destination Account 1234567

You can't edit the information displayed on this page.

4. View the following information displayed about each event, with some variations depending on the event type:
  - Transaction status, contract number, customer name, transaction number, type, and currency, all displayed in the header of the page.

The following details are displayed in the body of the page:

- Event date and value. Contract events added through API integration also contain an external identifier.
- Contract's actual amounts and source/ destination accounts.

## Managing Repayment Notifications

Loan Management automatically generates notifications for each installment that has to be paid for existing contracts with overdrawn amounts. There can be various types of notifications generated for fees, commissions, and so on. Loan Management also assists you reconcile wrongly processed cases and other situations resulted from delayed processing/ wrong updates. Thus, depending on your user rights, you can [manually add notifications](#) for an active contract, or add notifications for amounts to be recovered even if there is no active contract. Loan Management includes all such manual notifications in the recovery processes.

All the repayment notifications that are not paid in full after their maturity dates are subject to automated penalty calculation processes performed by Loan Management. Thus, for repayment notifications linked to a contract, Loan Management uses the penalty interests defined within the interests list attached at the banking product level, and for repayment notifications not linked to a contract, it uses the penalty interest list specified in a [system parameter](#).

### NOTE

All the Front-End Fee commission types with Once periodicity type applied to a contract are notified and must be paid when the contract is approved. The [Loan Management system parameter FrontEndFee](#) defines the type of commission that is automatically notified at the contract approval.

**CURRENT STATUS** APPROVED > NEXT STATUS CLOSED

CONTRACT NUMBER 3569 ACTIVATION DATE 20/08/2021 CREATED BY vladb VERSION 2 VERSION DATE 20/08/2021 03:00 CONTRACT CATEGORY Normal

Tools On

**FEES & COMMISSIONS**

Refresh

<input type="checkbox"/>	Fee	Currency	Fee Date	Percent Fee	Value Fee	Periodicity Type
<input type="checkbox"/>	Commission Applied To Amount	EUR	20/08/2021	10.0000	12.50	Monthly
<input type="checkbox"/>	Corporate Loan Term Front-end Fee EUR	EUR	20/08/2021	8.0000	51.00	Once
<input type="checkbox"/>	Repayment Fee EUR	EUR	20/08/2021		18.50	Once

**CURRENT STATUS** PROCESSED

**EDIT REPAYMENT NOTIFICATION**

**REPAYMENT NOTIFICATION**

No. 199204 Contract 3569 Currency EUR

Notification Date 20/08/2021 Maturity Date 20/08/2021 Total Amount 276

**REPAYMENT NOTIFICATION DETAILS**

Export Refresh

<input type="checkbox"/>	Operation Item	Value	Remaining Value	Is Paid
<input type="checkbox"/>	Front-end Fee	51.00	0.00	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Advance	225.00	0.00	<input checked="" type="checkbox"/>

**PAYMENT ALLOCATIONS**

<input type="checkbox"/>	Payment No.	Payment Date	Operation Item	Allocated Amount	Due Date	Delay (days)
<input type="checkbox"/>	9828	20/08/2021	Front-end Fee	51.00	20/08/2021	0
<input type="checkbox"/>	9828	20/08/2021	Advance	225.00	20/08/2021	0

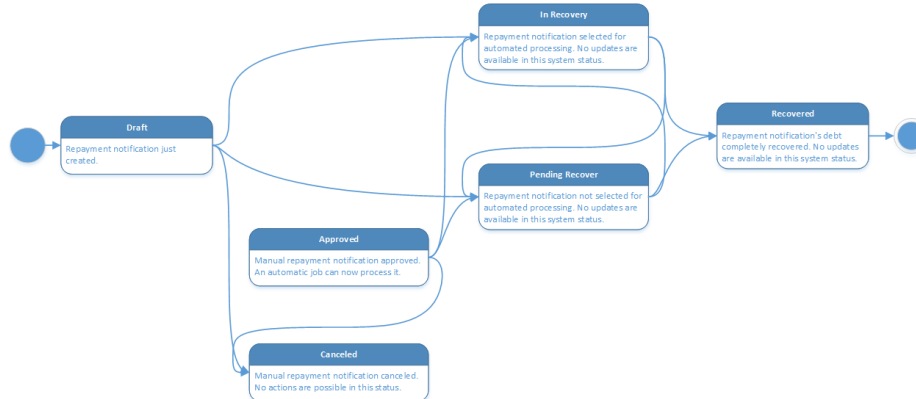
## Repayment Notification Statuses

A repayment notification record has the following business workflow statuses:

- **Draft** - the status of a newly created repayment notification record, either automatic or manual.
- **Approved** - the status of a manual repayment notification record after being authorized by a user with notification approval competencies. While in this status, you cannot edit the record's details. From this status, the record is picked up by a [scheduled job](#) and its status is automatically changed, depending on the direct debit settlement settings. If the Direct Debit Settlement Account field at the contract level = True, then the manual notification's status changes to **In Recovery**, otherwise it changes to **Pending Recover**.

- **Canceled** - the status of a manual repayment notification after canceling it straight from the **Draft** status. You can only cancel a manual notification if its **Total Amount = Remaining Value**.
- **Pending Recover** - this is a system status applied to repayment notification when **Direct Debit Settlement Account** at the contract level is set to **False**. No updates are available in this system status.
- **In Recovery** - this is a system status applied to repayment notification when **Direct Debit Settlement Account** at the contract level is set to **True**. No updates are allowed on the record.
- **Recovered** - the last status of a repayment notification, after the complete recovery of the notification's debt. No updates are allowed on the record.

The repayment notification status transitions are illustrated below:



## Accessing Repayment Notifications

Loan Management enables you to access notifications in several places, for your convenience.

### Accessing a contract's repayment notifications

To view the notifications generated for a specific contract, follow these steps:

1. On the **Contract** page, navigate to the **Payments** tab > **Repayment Notifications** section.
2. View all the repayment notifications generated for the contract. This section only has information if the contract is in **Approved** status and disbursements were already performed.

REPAYMENT NOTIFICATIONS

Export Refresh

No	Customer	Date	Currency	Amount	Remaining	MaturityDate
Q	Q	Q	Q	Q	Q	Q
192896	Oana C	25/11/2021	EUR	0.13	0.00	25/11/2021
192714	Oana C	12/11/2021	EUR	239.16	0.00	12/11/2021
192613	Oana C	22/10/2021	EUR	0.78	0.00	22/10/2021
192462	Oana C	12/10/2021	EUR	239.16	0.00	12/10/2021
192199	Oana C	12/09/2021	EUR	239.16	5.18	12/09/2021
191933	Oana C	12/08/2021	EUR	653.50	0.00	12/08/2021
191814	Oana C	31/08/2021	EUR	14.76	0.00	31/08/2021
191465	Oana C	12/08/2021	EUR	653.50	0.00	12/08/2021
192136	Oana C	12/08/2021	EUR	239.16	0.00	12/08/2021
192135	Oana C	12/07/2021	EUR	239.16	0.00	12/07/2021

5 20 1 2 4

Repayment notifications highlighted in blue are already paid, allocated or closed to payment, while the ones not highlighted remain to be paid.

3. View the information is displayed about each notification:
  - Number, date, and status of the notification
  - Customer and currency of the contract
  - Amount of the installment for which the notification was generated
  - Remaining amount from the installment to be paid
  - Maturity date of the notification, automatically calculated adding the value of the Grace period for repayment field at the product

service configuration level to the notification date.

# Accessing all the repayment notifications generated by Loan Management

To access all the notifications created in Loan Management, follow these steps:

- 1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
- 2. To access only manually captured notifications, click **Manual Repayment Notification** menu item to open the **Manual Repayment Notifications** page.

MANUAL REPAYMENT NOTIFICATION								
<input type="checkbox"/> No	Customer	Notification Date	Currency	Notification Status	Total Amount	Remaining Value	Locked for DD	
Q	Q	Q	Q	Q	Q	Q	(All)	
59178	Littel and Sons	05/07/2023	EUR	Recovered	559.00	0.00	<input type="checkbox"/>	
59181	Hyatt - Dooley	21/06/2023	EUR	Recovered	521.00	0.00	<input type="checkbox"/>	
59190	Smith and Sons	21/06/2023	EUR	Processed	886.00	886.00	<input type="checkbox"/>	
59954	Nassem Prince ...	20/01/2023	EUR	Draft	100.00	100.00	<input type="checkbox"/>	
59953	Nassem Prince ...	20/12/2022	EUR	Processed	100.00	100.00	<input type="checkbox"/>	
1	10	20					2	3 4 5 ...

- 3. To access automatic and manual notifications, click **Repayment Notification** menu item to open the **Repayment Notifications List** page.

REPAYMENT NOTIFICATIONS LIST								
<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status	
Q	Q	Q	Q	Q	Q	Q	Q	Q
59178	Littel and S...	05/07/2023	EUR	559.00	0.00	05/07/2023	Recovered	
59177	Littel and S...	05/07/2023	EUR	1,200.00	0.00	05/07/2023	Recovered	
59176	Littel and S...	05/07/2023	EUR	440.00	0.00	05/07/2023	Recovered	
59190	Smith and ...	21/06/2023	EUR	886.00	886.00	24/06/2023	Processed	
59189	Smith and ...	21/06/2023	EUR	1,200.00	0.00	21/06/2023	Recovered	
1	10	20					2	3 4 5 ...

## Viewing Repayment Notifications



1. To view the details of a repayment notification, double-click the desired record. The **Edit Repayment Notification** page is displayed for automatically generated notifications, or the **Edit Manual Repayment Notification** page for manual notifications, both presenting the repayment notification details.

REPAYMENT NOTIFICATION NO.

568552

CURRENT STATUS:

Recovered

Manual Repayment Notification

Customer

Acheca SRL

Currency

EUR

Contract

7997

Source Bank/Account

Total Amount

496.53

Notification Date

10/03/2023

Maturity Date

10/03/2023

Repayment Description

Repayment Notification Details

Export

Refresh

Operation Item	Value	Remaining Value	Is Paid
Loan Interest	25.33	0.00	<input checked="" type="checkbox"/>
Management Fee	10.00	0.00	<input checked="" type="checkbox"/>
Loan Principal	463.20	0.00	<input checked="" type="checkbox"/>

Payment Allocations

Export

Refresh

Payment No.	Payment Date	Operation Item	Allocated Amount	Due Date	Delay (days)
465241	12/02/2023	Management Fee	10.00	10/03/2023	0
470312	12/03/2023	Loan Principal	34.77	10/03/2023	2
470241	12/03/2023	Loan Principal	94.19	10/03/2023	2
470395	12/03/2023	Loan Principal	334.24	10/03/2023	2
465241	12/02/2023	Loan Interest	25.33	10/03/2023	0

Repayment Notification Penalties

Export

Refresh

Penalized Item	Penalty Date	Penalty Notification	Overdue Days	Penalty Amount	Is Paid	Description
No data						

## NOTE

Automatically generated notifications can't be edited!  
You can only edit the details of manual notifications in Draft status.

2. View notification specific data in the **Repayment Notification** section:

- **Repayment Notification No.** - The number of the repayment notification record.
- **Customer** - The customer for whom the notification was generated.
- **Currency** - The currency of the notification.
- **Contract** - The number of the contract for which the notification was generated.
- **Notification Date** - The date when the notification was generated.
- **Maturity Date** - The maturity date of the notification. This is calculated by adding the value of the Grace period for repayment field at the product service configuration level to the notification date.
- **Source Bank Account** - The bank account from where the notified amount should be allocated.
- **Total Amount** - The total amount to be paid within the notification (the sum of all the details' values).
- **Repayment Description** - A description of the manual notification.

3. View details (lines) of the notification in the **Repayment Notification Details** section:

- **Operation Item** - The operation item for which the notification detail is generated.
- **Value** - The value of the notification detail.
- **Remaining Value** - The remaining value still to be paid from the notification value.
- **Is Paid** - This checkbox is automatically marked as true when the full amount is allocated to the detail value. You cannot change this value.

**NOTE**

Notification details are automatically marked as paid when a repayment transaction performed and approved for the contract is allocated by the system to cover the value of the notification detail.

- To view more information about a notification detail, double-click it to open the **Repayment Notification Details** page:

NOTIFICATION NO. 59181 | DETAIL NO. 91084

Add Repayment Notification Detail

**Repayment Notification Detail**

<small>Operation Item</small>	<small>CurrencyId</small>	<small>Value</small>	<small>RemainingValue</small>
Loan Principal	EUR	24	0

**Payment Allocations**

<input type="checkbox"/> Contract	Payment	Payment Date	Operation Item	Allocation Value	Delay Days
9337	471800	21/06/2023	Loan Principal	24.00	0

- View information about the payments allocated for the notification details in the **Payment Allocation** section:
  - **Payment No.** - The number of the payment.
  - **Payment Date** - The date when the payment was performed.
  - **Operation Item** - The operation item from the notification for which the payment was allocated.
  - **Allocated Amount** - The amount allocated from the payment.
  - **Due Date** - The due date of the notification.

- **Delays (days)** - The number of days passed since the notification's due date.
6. To view more information about a payment allocation, double-click it to open the **Edit Payment Allocation** page:

EDIT PAYMENT ALLOCATION

<b>Allocation Details</b>			
Contract 9337	Payment 471800	Payment Date 21/06/2023	Currency EUR
Allocation Value 24	Repayment Notification 59181	Operation Item Loan Principal	Delay Days 0
<b>Contract Installment Details</b>		<b>Repayment Notification Details</b>	
Contract Installment No	Installment Due Date	Notification Maturity Date 21/06/2023	Notification Remaining Value 0

You cannot edit any of the fields from this page.

### NOTE

The operation item is used in the payment allocation process. If the repayment notification is not linked to a contract, then Loan Management takes the operation item value from the allocation method configured within the [ManualAllocationMethod](#) system parameter. If a repayment notification is created for a contract with **Closed** status, then Loan Management takes the operation item value from the allocation method selected at the product service configuration level.

7. View information about the penalties calculated for the manual repayment notifications that were not paid in full until their maturity date in the **Viewing Notification Penalties** section:

Repayment Notification Penalties

[Export](#) [Refresh](#)

<input type="checkbox"/>	Penalized Item	Penalty Date	Penalty Notification	Overdue Days	Penalty Amount	Is Paid	Description
	Q	Q	Q	Q	Q	(All)	Q
	Loan Principal	20/07/2022	60087	8	0.26	<input type="checkbox"/>	Total penalty is : 0.26 Pena...
	Loan Principal	22/10/2022		102	3.09	<input type="checkbox"/>	Total penalty is : 3.35 Pena...

All the repayment notifications that are not paid in full after their maturity dates are subject to automated penalty calculation processes performed by Loan Management. Thus, for repayment notifications linked to a contract, Loan Management uses the penalty interests defined within the interests list attached at the banking product level. For repayment notifications which are not linked to a contract, Loan Management uses the penalty interest list specified in the [ManualPenaltyInterestList](#) system parameter.

Each penalty displays information about the penalized item, the penalty date, the number of penalty notification, the number of overdue days after the repayment notification's maturity date, the penalty amount, a description, and whether the penalty was pad or not.

8. To view more information about a correction entry, double-click it to open the **Edit Contract Penalty Detail** page:

EDIT CONTRACT PENALTY DETAIL

Contract Penalty Detail

ContractPenaltyId

Loan Item

Overdue Days

PenalizedNotificationDetailId

Penalty Amount

Description  
Total penalty is : 0.26  
Penalty percent: 0.0003287671 was applied to 100.00, delay days for calculation 8

Name

Penalized Item

Penalized Notification

You can't edit any of the fields from this page.

9. View information about any correction entries created for the notification in the **Viewing Corrections** section. Contract correction entries are automatically generated, for notifications that are overdue, when creating a **Reschedule Overdue** transaction type contract event. Here you can see information about the customer of the contract, the date and currency of the correction entry, and the total amount of the correction (the sum of all the correction details' values).
10. To view more information about a correction entry, double-click it to open the **Edit Contract Correction Entry** page:

EDIT CONTRACT CORRECTION ENTRY

**Contract Correction Entry**

Repayment Notification

59181 ✎

Customer

Hyatt - Dooley ✎

Contract

9337 ✎

Correction Date

14/07/2022 ✎

Currency

EUR

Total Correction

3

**Contract Correction Entry Details**

+ Insert
Export
Refresh

	Operation Item	Correction Value
	Q	Q
		-2.00
		5.00

- **Repayment Notification** - The repayment notification number.
  - **Contract** - The contract number associated with the notification.
  - **Currency** - The currency of the notification.
  - **Customer** - The customer associated with the notification.
  - **Correction Date** - The date when the correction was created.
  - **Total Correction** - The sum of all correction entry detail records associated with the current correction entry.
11. Additionally, you can view information about each detail within the correction:

- **Operation Item** - The operation item of the transaction for which the correction entry detail was inserted.
- **Correction Value** - The value of the correction entry detail, in the correction entry's currency.

## Understanding Automated Settlement of Repayment Notifications (Direct Debit Settlement Account)

The automated settlement of repayment notification, or direct debit settlement account, is the functionality whereby, if funds are available on the settlement account and the contract has repayment notifications pending for recovery, Loan Management automatically uses the available balance up to full settlement of repayment notifications.

When you have restrictions of any kind on the settlement account or the allocation simply needs to be done as per a legal authority instructions, you can turn off the automated settlement of Installment type repayment notifications functionality (the payment allocation) at the **contract level** using the Direct Debit Settlement Account checkbox. Deselecting the checkbox leads to the underlying amounts on notifications pending recovery not being retrieved automatically even if there are available funds in settlement account. Thus, financial institution can manage the contracts in case of blocked accounts and control the allocation of funds to outstanding Installment type notifications in case of need to impose a block on the settlement account, or manage the settlement of multiple loans from the same settlement account when short on funds and exceptional rules might apply.

This parametrization is available at [product service configuration](#) level, you can it amended at the contract level, and it is also available at customer level with a system parameter to instruct Loan Management if the customer level setup should impact underlying contracts or not. Thus, you can manage the Direct Debit Settlement Account setting at the **customer level**. The customer

level setting takes precedence over the setting at the contract level when creating new contracts. For existing contracts, Loan Management applies the setting configured within the `CustomerToContractDirectDebitSettlementAcc` system parameter.

If the automated settlement of repayment notification functionality is turned off, the contract is pending for manual repayment. You can turn it back on as required, when required, and allow Loan Management to allocate the funds according to its automated processes, using any funds that become available in the settlement account in order to cover pending notifications. When the functionality is turned on or off, the notifications already processed remain unchanged. You can turn the automated settlement functionality on or off even after the maturity of a contract, as long as the contract is not closed.

The following validations are performed for the `Direct Debit Settlement Account` field at the contract level:

- If `Direct Debit Settlement Account = True` and new `Installment` type repayment notifications are generated, the system automatically tries to recover the values from `Settlement Amount`. When the repayment notification is fully paid, Loan Management automatically changes the `Installment` type repayment notification's status to `Recovered`.
- If `Direct Debit Settlement Account = True` and old unpaid `Installment` type repayment notifications already exist, the system tries to create recover debt records for the remaining amount for all unpaid `Installment` type repayment notifications, and changes their status to `In recovery`.



- If `Direct Debit Settlement Account = False` and new Installment type repayment notifications are generated, the system doesn't register any debt to recover, and changes the notification's status to `Pending Recover`.
- if `Direct Debit Settlement Account = False` and old Installment type repayment notifications are generated, the system removes debts to recover from the Settlement Account, and changes the status to `Pending Recover`.

## Viewing a Contract's Penalties

You can view the penalty interest already notified for the contract in the **Penalties** section of the **Payments** tab. These penalties are automatically calculated by Loan Management for an approved contract based on all the interests with selected **Is Penalty** checkbox that are applied to this contract.

To view the penalties applied to a contract, follow these steps:

1. On an approved contract's **Payments** tab, navigate to the **Penalties** section. If any penalty interest was calculated for the contract, they are displayed here:

Penalties

Export

Refresh

<input type="checkbox"/>	PenaltyDate	PenaltyAmount	Payed	NotificationNo
Q	<div><div></div><div>Q</div></div>	(All)	-	Q
	01/07/2022	5.42	<input type="checkbox"/>	59086
	12/09/2022	5.84	<input checked="" type="checkbox"/>	59057
	21/09/2022	3.39	<input type="checkbox"/>	59648
	16/10/2022	0.75	<input type="checkbox"/>	60187
	08/11/2022	4.34	<input type="checkbox"/>	60188

5

10

20

1

2

3

2. View basic information about the penalties in the list, such as penalty date, amount, notification number and whether it was paid or not. Payed penalties are also highlighted in blue, for your convenience.

3. To see detailed information about one of the applied penalties, double-click on the desired penalty record. The **Contract Penalty** page is displayed with the selected penalty's details:

EDIT CONTRACT PENALTY

Contract Penalty

Contract

9136

Customer

BOBO SanLegal

Is Paid

☒

Name

Notification

59057

Penalty Amount

5.84

Penalty Date

12/09/2022

Contract Penalty Details

+ Insert

x Delete

Export

Refresh

<input type="checkbox"/>	Penalized Notification	Penalized Item	Overdue Days	Penalty Amount	Loan Item	Description
	Q	Q	Q	Q	Q	Q
	59042	Loan Principal	31	5.30	Overdue Principal	Total penalty is : 5.30 Pen...
	59042	Loan Interest	31	0.54	Overdue Interest	Total penalty is : 0.54 Pen...

You can't edit the information displayed on this page.

4. View the information in the **Contract Penalty** section, as displayed:
- **Contract** - The number of the contract for which the penalty is applied.
  - **Customer** - The customer for whom the contract was created.
  - **Is Paid** - A checkbox indicating whether the penalty was already paid through a payment allocation or not.
  - **Name** - The name of the penalty.
  - **Notification** - The number of the notification where the penalty is included.
  - **Penalty Amount** - The amount of the penalty expressed in the contract's currency.
  - **Penalty Date** - The date when the penalty was calculated.

5. View the information in the **Contract Penalty Details** section, as displayed:
  - **Penalized Notification** - The notification which was not paid in time and for which the penalty is calculated.
  - **Penalized Item** - The item to which the penalty interest was applied.
  - **Overdue Days** - The number of days since the notification was overdue for payment.
  - **Penalty Amount** - The calculated amount of the penalty.
  - **Loan Item** - The loan item which is used to calculate the penalty interest.
  - **Description** - The description of the contract penalty detail. It contains the total penalty value, the penalty percent or value applied to the number of overdue, and the delay days for calculation.
6. Double-click a detail record to view the details of the penalty on a separate page, **Edit Contract Penalty Detail**:

**EDIT CONTRACT PENALTY DETAIL**

Contract Penalty Detail

ContractPenaltyId

Loan Item

Overdue Principal

Overdue Days

31

PenalizedNotificationDetailId

Penalty Amount

5.3

Description

Total penalty is : 5.30  
Penalty percent: 0.0003287671 was applied to 520.07, delay days for calculation 31

Name

Penalized Item

Loan Principal

Penalized Notification

59042

You can't edit the information displayed on this page.

## Manually Capture Notifications

Apart from the notifications automatically generated by Loan Management for each installment that has to be paid for existing contracts that disbursed various amounts to customers, Loan Management also assists you reconcile wrongly processed cases and other situations resulted from delayed processing/ wrong updates. Thus, depending on your user rights, you can manually add notifications for an active contract based on lending product types, term loans, and mortgages, or add notifications for amounts to be recovered even if there is no active contract. Loan Management includes all such manual notifications in the recovery processes.

### NOTE

Loan Management enables you to manage manual repayment notification via the user interface or via integration through APIs. For information about the available endpoints, please visit the [Loan Management Developer Guide](#). For information about managing manual repayment notification via the user interface, continue reading this page.

### NOTE

You need one of the **Corporate Credit Officer**, **Retail Credit Officer**, or **Loan Admin Officer** [security roles](#) to view, create, delete, and update manual repayment notifications. You need the **Loan Admin Officer** security role to update their status to Approved.

## Adding Repayment Notifications

Follow these steps to manually add a repayment notification:

1. In the FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.

- Click **Manual Repayment Notification** menu item to open the **Manual Repayment Notifications** page.

MANUAL REPAYMENT NOTIFICATION								
<input type="checkbox"/> No	Customer	Notification Date	Currency	Notification Status	Total Amount	Remaining Value	Locked for DD	
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	(All) ▾	
59178	Littel and Sons	05/07/2023	EUR	Recovered	559.00	0.00	<input type="checkbox"/>	
59181	Hyatt - Dooley	21/06/2023	EUR	Recovered	521.00	0.00	<input type="checkbox"/>	
59190	Smith and Sons	21/06/2023	EUR	Processed	886.00	886.00	<input type="checkbox"/>	
59954	Nassem Prince ...	20/01/2023	EUR	Draft	100.00	100.00	<input type="checkbox"/>	
59953	Nassem Prince ...	20/12/2022	EUR	Processed	100.00	100.00	<input type="checkbox"/>	
5	10	20					1	2 3 4 5 ...

Or, click **Repayment Notification** menu item to open the **Repayment Notifications List** page.

REPAYMENT NOTIFICATIONS LIST								
<input type="checkbox"/> No	Customer	Date	Currency	Amount	Remaining	MaturityDate	Status	
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
59178	Littel and S...	05/07/2023	EUR	559.00	0.00	05/07/2023	Recovered	
59177	Littel and S...	05/07/2023	EUR	1,200.00	0.00	05/07/2023	Recovered	
59176	Littel and S...	05/07/2023	EUR	440.00	0.00	05/07/2023	Recovered	
59190	Smith and ...	21/06/2023	EUR	886.00	886.00	24/06/2023	Processed	
59189	Smith and ...	21/06/2023	EUR	1,200.00	0.00	21/06/2023	Recovered	
5	10	20					1	2 3 4 5 ...

Within the list, the notifications highlighted in blue are already paid, allocated, or closed to payment, while notifications not highlighted (displayed on a white background) remain to be paid.

- On the **Manual Repayment Notifications** page, click **Insert** to open the **Add Manual Repayment Notification** page.
- Fill in the following details regarding the notification:

Manual Repayment Notification

Customer

Bridg...

Currency

EUR

Contract

7364

Source BankAccount

FIN000004078

Total Amount

Notification Date

22/07/2022

Maturity Date

22/07/2022

Repayment Description

- **Customer** - Select the customer for whom the notification is created.
- **Contract** - Select the number of the contract for which the notification is generated. You can choose from the approved and closed contracts of the selected customer. The currency and the source bank account are automatically filled in using the values from the selected contract. If the notification is not linked to an active contract, you must select a source bank account.
- **Source Bank Account** - Automatically filled in if the contract was selected. Select the bank account from where the notified amount should be allocated. After selecting a source bank account, the currency is changed with the bank account's currency.
- **Notification Date** - Select the date when the notification is created.

#### NOTE

You can also add manual repayment notification from the contract level's **Payments** tab, clicking **Insert** within the **Repayment Notification** section. In the displayed **Add Manual Repayment Notification** page, some of the fields are automatically filled in based on the contract's information and can't be modified.

5. Optionally, view or edit the following details:

- **Currency** - Automatically filled in with the currency of the notification, if the contract or the source bank account was selected.
- **Total Amount** - This read-only field holds the total amount to be paid within the notification, calculated as the sum of all the details' values.
- **Maturity Date** - This field is automatically filled in with the maturity date of the notification, calculated by adding the value of the **Grace period for repayment** field at the product service configuration level to the notification date. If no contract is selected, hence there is grace period to consider from the product service configuration level, then the **ManualGraceRepayment** Loan Management system parameter is used

for maturity date calculation.

- **Repayment Description** - Enter a description for the manual notification.

6. Click the **Save and Reload** button. The manual notification is saved by Loan Management in **Draft** status. You can now continue by [adding repayment notification details](#) to it.

You can view the notifications generated for a specific contract on the **Contract** page, in the **Payments** tab > **Repayment Notifications** section:

NOTIFICATIONS

[Simulate Reschedule Overdues](#)

[Export](#) [Refresh](#)

<input type="checkbox"/>	Name	CustomerId	Notification Date	Currency	Total Amount	remainingValue	Maturity Date	Selected for Reschedule
	Q	Q	Q	Q	Q	Q	Q	(All) ▾
	192124	test974	06/08/2021	EUR	3,381.18	3,381.18	06/08/2021	<input checked="" type="checkbox"/>
	192125	test974	06/09/2021	EUR	3,381.18	3,381.18	06/09/2021	<input checked="" type="checkbox"/>

## NOTE

Once the repayment notification is in **Draft** status, you can edit the currency and the source bank account only if there are no notification details created for it.

## Adding Repayment Notification Details

Follow these steps to manually add a repayment notification detail:

1. On the **Edit Manual Repayment Notifications** page, click **Insert** to open the **Add Manual Repayment Notification Detail** page. The page already has the currency of the notification and the remaining value still to be paid from the notification value completed. When you create the notification detail, **Remaining Value = Value**.
2. Fill in the following details regarding the notification detail:

Add Repayment Notification Detail

Repayment Notification Detail

Operation Item	CurrencyId	Value	RemainingValue
Loan Principal	EUR	23	23

- **Operation Item** - Select the operation item for which the notification detail is created. The [operation item](#) is used in the payment allocation process. If you select an operation item that is not included in the [allocation method](#) used for manual notifications (stored in the [ManualAllocationMethod](#) system parameter), then Loan Management displays a warning message.
  - **Value** - Enter the value of the notification detail. It must be must be greater than 0.
3. Click the **Save and Close** button. The notification detail is saved by Loan Management. You can add as many details as needed to a manual repayment notification in Draft status.

**NOTE**

For the payment allocation job to process the details, you must first [approve the manual repayment notification](#) record.

## Approving Manual Repayment Notifications

After adding all the details you need to a manual repayment notification, make sure you approve it by changing its status to **Approved**. Otherwise, the payment allocation automated jobs don't process it.

Loan Management performs the following validations before approving a manual repayment notification:

- The **Total Amount** of the repayment notification must be greater than 0;
- The **Value** fields at the details level must be greater than 0;
- The operation items selected at details level must be included in the allocation method used for manual notifications (stored in the [ManualAllocationMethod](#) system parameter).

After approval, Loan Management automatically transitions manual repayment notifications from the **Approved** status into **Pending Recover** or **In Recovery** statuses, using the [Auto Process Manual Repayment Notifications](#) scheduled job. Further, the automated settlement of repayment notification takes the notification and processes it, allocating funds from the source bank account to settle the debt.



## Closing a Current Account

Current account contracts with all their financial obligations met can be closed. Loan Management enables you to close these contracts automatically through scheduled jobs or manually, according to a series of settings defined at the banking product's service configuration and at the contract level. The automatic closure of contract is triggered whenever the maturity date of the contract is reached and there are no overdue amounts on the contract, or according to the closure settings.

There are cases when you might expect the account to get closed once all amounts recovered, maturity date reached, or you might want such contracts to be closed after a certain number of days, allowing for possible reconciliations, or even leave them to be manually closed or with a localized job. All this is enabled from product level and, if set as negotiable, you can also change the default at contract level. You might need such settings if you work with direct debit and need to allow for the number of days the direct debit can bounce to pass before you really close the deal.

You can configure the closure settings at the product service configuration level, in the **Closing Contract Settings** section:

Closing Contract Settings

Buffer Close Days

Close Real Time

☐

Closing Is Flexible

☒

Contract Is Closed Automatically

☒

If allowed from the product service configuration, you can amend the closure settings of the contract, the way Loan Management should behave once there are no more due amounts and the contract can be closed. Perform these configurations in the **Closure Settings** section of the **Overview** tab, [during contract creation](#), for contracts based on banking products with service configurations having the **Closing Is Flexible = True** setting:

Closure Settings

Automatic Closure

☒

Real Time Closure

☒

Buffer Close Days

Balance Off Date

Closure Date

Depending on the real time closure setting, Loan Management uses the one following scheduled jobs to close the contracts automatically:

- **Close Contracts (CB) Job** - this job closes automatically all contracts with Automatic Closure = True and Real Time Closure = False, with zero available amount and with no further amounts to be recovered, that have Balance Off Date filled in and Closure Date = Current Date.
- **Close Contracts RealTime(CB) Job** - this job closes automatically all contracts with Automatic Closure = True and Real Time Closure = True, with zero available amount and with no further amounts to be recovered.

You can see the list of contracts that are ready to be closed in the **Closure of Contracts** report:

CLOSURE OF CONTRACTS								
<a href="#">Refresh</a>		<a href="#">Export</a>						
<input type="checkbox"/>	ContractNo	Customer	Product	Currency	Amount	Balance Off Date	Closure Date	Maturity Date
<input type="checkbox"/>	Q	Q	Q	Q	Q	Q	Q	Q
	7961		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7956		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7941		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7934		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
	7918		Regression Term Loan E...	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022
5	10	20						

You can also use the [GetClosureOfContracts](#) endpoint to fetch the same information within your own API integration.

## Manually Closing Current Account without Overdraft Contracts

If you opted to close a contract with all the obligations met manually, and not automatically, before its maturity date, then follow these steps:

1. Double-click an approved contract with zero amounts to be recovered and zero available balance, opening it for editing.

This example shows you a current account with its balance = 0 and no overdraft:

**CURRENT STATUS:** Opened

**CURRENCY:** EUR | **STATUS:** Opened Bank Account | **BANK ACCOUNT NO:** FIN000007596

**EDIT BANK ACCOUNT**

<b>Bank</b> <input type="text" value="FintechOS Bank"/>	<b>Customer</b> <input type="text" value=""/>
<b>Currency</b> <input type="text" value="EUR"/>	<b>Account Type</b> <input type="text" value="Current Account"/>
<b>Bank Account Number</b> <input type="text" value="FIN000007596"/>	<b>IBAN</b> <input type="text" value=""/>
<b>Overdraft Limit Amount</b> <input type="text" value=""/>	<b>Balance</b> <input type="text" value="0"/>

2. Change the contract's **Next Status** into **Closed**.

**CURRENT STATUS:** Approved | **NEXT STATUS:** Closed

**CONTRACT NUMBER:** 12348 | **ACTIVATION DATE:** 2022/09/08 | **CREATED BY:** | **VERSION:** 1 | **VERSION DATE:** 08/09/2022 03:00 | **CONTRACT CATEGORY:** Normal

1 Overview | 2 Payments | 3 Contracts & Documents | 4 History | 5 Accounting Entries

**General Data**

<b>Contract ID</b> <input type="text" value=""/>	<b>Customer</b> <input type="text" value=""/>	<b>Banking Product</b> <input type="text" value="Regression Current Account EUR"/>	<b>Currency</b> <input type="text" value="EUR"/>
<b>Activation Date</b> <input type="text" value="2022/09/08"/>	<b>Main Bank Account</b> <input type="text" value="FIN000007596"/>	<b>Managing Branch</b> <input type="text" value="root"/>	
<b>Direct Debit Settlement Account</b> <input checked="" type="checkbox"/>		<b>Sales Channel</b> <input type="text" value="ECommerce"/>	

If Loan Management performs all the validations and finds that the financial obligations are met and there are no more amounts to be recovered or to be transferred out, then the contract's status becomes **Closed**. You can't perform any other operations on this contract.

**CURRENT STATUS:** Closed

**CONTRACT NUMBER:** 12348 | **ACTIVATION DATE:** 2022/09/08 | **CREATED BY:** | **VERSION:** 1 | **VERSION DATE:** 08/09/2022 03:00 | **CONTRACT CATEGORY:** Normal

1 Overview | 2 Payments | 3 Contracts & Documents | 4 History | 5 Accounting Entries

**General Data**

<b>Contract ID</b> <input type="text" value=""/>	<b>Customer</b> <input type="text" value=""/>	<b>Banking Product</b> <input type="text" value="Regression Current Account EUR"/>	<b>Currency</b> <input type="text" value="EUR"/>
<b>Activation Date</b> <input type="text" value="2022/09/08"/>	<b>Main Bank Account</b> <input type="text" value="FIN000007596"/>	<b>Managing Branch</b> <input type="text" value="root"/>	
<b>Direct Debit Settlement Account</b> <input checked="" type="checkbox"/>		<b>Sales Channel</b> <input type="text" value="ECommerce"/>	

Any existing versions of the contract are also automatically closed, as you can see in the **History** tab.

Name	Label	Attribute Version Date	Attribute Version	Modified by user
12606.2	Contract Version Closed	05/09/2022 13:44	2	[user]
12606	Closed	18/08/2022 03:00	1	[user]

## Manually Closing Current Account with Overdraft Contracts

### IMPORTANT!

When you plan to close a current account with an attached overdraft functionality, first you have to settle the costs linked to the overdraft, transfer any remaining balance to another account, and only then you can proceed to close the account.

If you opted to close a current account with overdraft contract with all the obligations met manually, and not automatically, before its maturity date, then follow these steps:

1. Create a new version of the **Approved** contract.

2. Scroll down in the new version's **Overview** tab and fill in a Versioning Reason.

## Versioning Reason

Versioning reason

Closure of current account

3. Change the Maturity Date of the contract to an agreed upon date.

**Overdraft**

Overdraft Limit Amount: 10,000

Expire date for Overdraft: 12/10/2022

Date for Review Overdraft Interest Rate:

**Overdraft Interest**

Overdraft Interest: Overdraft Floating BIBOR 6M

**Overdraft Interest Rate**

+ Add Overdraft Interest Rate X Delete Refresh

<input type="checkbox"/>	Interest	Start Date	End Date	Minimum A...	Maximum A...	Minim Intere...	Fixed Rate	Margin	Reference R...	Total Interes...	Is Penalty	Is For Overdr...
<input type="checkbox"/>	Overdraft Floa...	12/09/2022	30/09/2023	0.00	10,000.00		0.0000	2.0000	1.5700	3.5700	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Repayment Overview**

Schedule Type: OverdraftCurrentAcco...

Contract Period: 1

Contract Period Type: Months

MaturityDate: 12/10/2022

4. If the Expire Date for Overdraft was not reached yet, then you must also change it to the same date as you did for Maturity Date.
5. Go to the contract's **Payments** tab and double-click the repayment schedule to open it. Click **Recalculate** for Loan Management to perform a recalculation of the repayment plan, to have the last installment due on the new maturity date, with all the accrued amount added into the designated columns.

Contract Repayment Schedule

Date Schedule: 12/09/2022

Contract: 12759.2

Customer:

Import Schedule: ☐

Recalculate

Print Schedule

6. Approve the contract version.

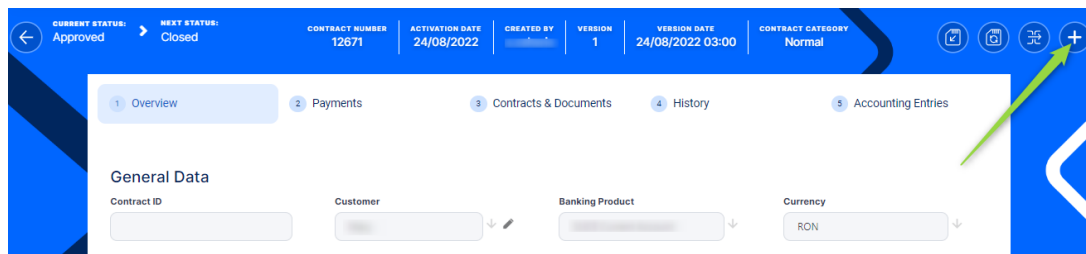
7. At the end of that day, Loan Management notifies the installment. Whenever a due amount is notified before the expiration date of the overdraft, the balance of the current account is credited with the notification amount when running the [Loan Management End Of Day scheduled job](#). When the expiration date of the overdraft is reached, any due amounts are moved to the last, expiration installment of the repayment schedule, on the principal, and the balance, the overdraft limit amount and the overdraft available amount are zeroed. The expiration installment amount can be covered with a top-up or a new overdraft on the same current account.
8. The next day, settle the last installment, [performing a top-up](#).
9. Close the current account manually, performing the same steps described in the "[Manually Closing Current Account without Overdraft Contracts](#)" on page 506 section.

## Creating New Versions of Existing Current Account Contracts

In Loan Management, the contracts are [set up for versioning](#). Thus, if you want to update the details of an approved contract, then you must create a new version of the record.

To create a new version for a record with the **Approved** status, follow these steps:

1. While in the **Contract** page of the record selected for updates, click the **New Version** button.



2. View the new version of the contract created by Loan Management, with **Contract Version Draft** status.

**CURRENT STATUS:** Contract Version Draft | **NEXT STATUS:** Choose status- | **CONTRACT NUMBER:** 126712 | **ACTIVATION DATE:** 24/08/2022 | **CREATED BY:** | **VERSION:** 2 | **VERSION DATE:** 25/08/2022 17:55 | **CONTRACT CATEGORY:** Normal

**General Data**  
 Contract ID:  | Customer:  | Banking Product:  | Currency:

3. Edit the desired fields in the **Overview** tab. You can only edit a set of fields for contracts based on specific banking products.
4. Select a versioning reason in the newly displayed editable **Versioning Reason** section.

## Versioning Reason

Versioning reason

✕ ▼

**NOTE** Select the Closure of current account reason when closing the current account with overdraft contract, as it signals Loan Management to perform the procedures needed in order to settle all the costs of the overdraft and of the current account.

5. Click the **Save and Reload** button.

If you approve the contract in **Contract Version Draft** status, then the original record transitions into the **Contract Version Closed** status and the secondary version becomes the **Approved** currently active contract record.

Read more details about versioning a record on the [How to Version an Entity Record](#) page.

## Possible Changes on New Current Account with Overdraft Contract Versions

- The **Financed Amount** value can either be increased or decreased. The amount can be decreased with a number smaller than or equal to the **Available amount**. Financed amount can be increased up to the maximum value specified at banking product level.
- The **Current Account** attached to the contract can be changed to any other active account belonging to the customer.
- **Product Interest** can be changed to any other type set at banking product level.
- **Schedule Type** can be changed with any other type set at banking product level.
- **Contract Period** cannot exceed the maximum set at banking product level.
- **Interest Grace Period** can be changed up to the maximum number of months set at banking product level.

After any of the above changes, in order to approve the new version of contract, the **Contract Repayment Schedule** must be recalculated.

## Viewing a Contract's History

You can view the versions of the contract, along with workflow status and the user who modified the record, in the contract's **History** tab.

1 Overview    2 Payments    3 Contracts & Documents    4 History    5 Accounting Entries

### History

[Refresh](#) [Export](#)

<input type="checkbox"/>	Name	Label	Attribute Version Date	Attribute Version	Modified by user
<input type="checkbox"/>	Q	Q	Q	Q	Q
<input type="checkbox"/>	10186	Approved	19/08/2022 11:39	3	c.m
	10186.2	Contract Version Closed	15/07/2022 15:17	2	c.m
	10186.3	Contract Version Closed	15/07/2022 03:00	1	c.m



A contract can have only one **Draft** version, one **Current** version, but it may have multiple **History** versions, which are displayed in this section. Here you can track the contract's life cycle and view older versions that are no longer active. Double-click a version in the list to view its details.

**CURRENT STATUS:**  
Contract Version Closed

CONTRACT NUMBER	ACTIVATION DATE	CREATED BY	VERSION	VERSION DATE	CONTRACT CATEGORY
10186.2	15/07/2022	Admin	2	15/07/2022 15:17	Normal

1 Overview 2 Payments 3 Contracts & Documents 4 History 5 Accounting Entries

### General Data

Contract ID	Customer	Banking Product	Currency
			EUR
Activation Date	Main Bank Account	Current Account	Destination Bank Account
15/07/2022	FIN000006094		
Amount	Advance Amount Percentage	Advance Amount Value	
10,000	0	0	
Start Calculation Date For Amount Unused	Maximum Disburse Date		Managing Branch
15/08/2022	14/07/2023		root
Auto disbursement	Direct Debit Settlement Account	Sales Channel	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	ECommerce	

## Viewing a Contract's Accounting Entries

You can view all the accounting entries, accounting totals, and accruals and provisions recorded for a contract within the **Accounting Entries** tab of the contract. These records are automatically generated by the system, after performing transactions for an approved contract.

### View Accruals and Provisions

To view the records containing daily accrual and provisions, generated automatically by the system respecting the definition of the contract, product dimensions, system parameters and jobs, follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accruals and Provisions** section.

Accruals And Provisions

[X Delete](#) [Export](#) [Refresh](#)

<input type="checkbox"/>	Classification	Contract	Calculation D...	Daily Accrual ...	Accumulated ...	Daily Accrual ...	Accumulated ...	Daily Interest ...	Accumulated ...	Daily Fee Acc...	Accumulated ...	Principal Prov...	Previous Prin...	Process Days
	q	q	q	q	q	q	q	q	q	q	q	q	q	q
	Sub-standard	8588	30/09/2022	0.12000000	1.08000000					0.00000000	0.00000000		100.00000000	9
	Normal	8588	24/06/2022	0.14000000	0.42000000					0.00000000	0.00000000			3
	Normal	8588	23/06/2022	0.14000000	0.28000000					0.00000000	0.00000000		100.00000000	2

- View the information displayed for each accrual and provision entry:
  - Classification** - The classification of the accrual and provision entry. The classification is determined based on the records created in the **Loan Classification** menu. These records classify transactions based on the number of days since a repayment notification is overdue.
  - Contract** - The number of the current contract.
  - Calculation Date** - The date when the accrual and provision calculation was performed.
  - Daily Accrual Interest** - The amount of interest accrued on that day.
  - Accumulated Interest Accrual** - The total amount of interest accrued until that day.
  - Daily Interest Provision** - The amount of interest provisioned on that day.
  - Accumulated Interest Provision** - The total amount of interest provisioned until that day.
  - Daily Fee Accrual** - The amount of fees and commissions accrued on that day.
  - Accumulated Fee Accrual** - The total amount of fees and commissions accrued until that day.
  - Principal Provision** - The amount of principal provisioned.
  - Previous Principal Provision** - The previous amount of principal provisioned.
  - Process Days** - The number of days processed.

## View Accounting Totals on Contract

To view an overview of the total amounts specified in accounting records generated by the **Generate Accounting Entries** service in the [Core Banking END OF DAY \(CB\) daily job](#), follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accounting Totals on Contract** section.

#### Accounting Totals On Contract

Account	Total Debit	Total Credit
20219 Other treasury loans	135.61	0.00
20271 Accrued interest	0.26	0.26
20272 Amounts to be deferred	0.00	500.00
25110 Current accounts	550.00	185.61
28120 Overdue interest	0.26	0.00
29111 Impairment allowance_principal_normal status	0.00	1.36
66211 Impairment allowance expense_principal_normal status	1.36	0.00
70222 Interest from term loans	0.00	0.26
90300 Commitments on behalf of customers	10,000.00	135.61
99900 Counterparty	135.61	10,000.00

2. View the information displayed for each total amount:
  - **Account** - The account where the operation was performed.
  - **Total Debit** - The amount which was debited from the account.
  - **Total Credit** - The amount which was credited to the account.

## View Accounting Entries

To view the accounting for the transactions related to the loan contract generated by the **Generate Accounting Entries** service in the [Core Banking END OF DAY \(CB\) daily job](#), follow these steps:

1. Navigate to the contract's **Accounting Entries** tab > **Accounting Entries** section.

Accounting Entries

[Refresh](#) [Export](#)

Name	Accounting Date	Accounting Value	Analytic Credit A...	Analytic Debit A...	Currency	Equivalent Value	Exchange Rate	Description
Acc8588	21/06/2022	10,000.0000			EUR	10,000.0000	1.0000	Approval of 8588
AccECB672	21/06/2022	1.3600			EUR	1.3600	1.0000	Disburse 8588
AccECB672	21/06/2022	135.6100			EUR	135.6100	1.0000	Disburse 8588
AccECB672	21/06/2022	135.6100			EUR	135.6100	1.0000	Disburse 8588
Acc460193	21/06/2022	500.0000	20272_TL_REG_EUR	25110_TL_REG_EUR	EUR	500.0000	1.0000	Repayment Front-end Fee Due 21.06.2022
AccAccrual8588	23/06/2022	0.1400	20271_TL_REG_EUR	28120_TL_REG_EUR	EUR	0.1400	1.0000	EOD 23.06.2022
AccAccrual8588	23/06/2022	0.1400	70222_TL_REG_EUR	20271_TL_REG_EUR	EUR	0.1400	1.0000	EOD 23.06.2022
Acc460194	21/07/2022	50.0000	25110_TL_REG_EUR	25110_TL_REG_EUR	EUR	50.0000	1.0000	Repayment Management Fee Due 21.07.2022
AccAccrual8588	30/09/2022	0.1200	20271_TL_REG_EUR	28120_TL_REG_EUR	EUR	0.1200	1.0000	EOD 30.09.2022
AccAccrual8588	30/09/2022	0.1200	70222_TL_REG_EUR	20271_TL_REG_EUR	EUR	0.1200	1.0000	EOD 30.09.2022

2. View the information displayed for each accounting entry:

- **Name** - The id of the accounting entry.
- **Accounting Date** - The date when the entry was generated.
- **Accounting Value** - The value of the accounting entry.
- **Analytic Credit Account Code** - The code of the analytic credit account.
- **Analytic Debit Account Code** - The code of the analytic debit account.
- **Currency** - The currency of the accounting entry.
- **Equivalent Value** - The equivalent value of the accounting entry expressed in the contract's currency.
- **Exchange Rate** - The exchange rate between the accounting entry currency and the contract currency.
- **Description** - The description of the accounting operation.

# Credit Facilities

A credit facility is a grouping of multiple credit products that a customer has arranged with a financial institution under a single credit limit. Financial institutions can offer companies a credit limit for the company as a whole, and the company can then take on different loan products without the need for separate risk assessments. This simplifies access to funds for companies and greatly reduces time-to-cash. Credit facilities also create operational efficiencies for the financial institution, because individual loans no longer need separate risk assessments.

FintechOS Loan Management allows financial institutions to create credit facility agreements for their customers based on approvals.

## Credit Facility Implementation Notes

- The credit facility approval is made according to the specifications of the financial institution set during the implementation process.

## Business Logic

Let's say a financial institution approves a credit facility for a group or a customer up to EUR 100.000, to be used by the credit facility participants among various currencies:

- guarantees allowed in EUR and USD;
- term loans allowed in EUR and GBP;
- overdrafts allowed in EUR.

First, an agreement is made between a financial institution and a customer (total exposure limit). This limit is used while creating the credit facility, making sure that the credit facility limit amount does not exceed the total exposure limit of the customer. The approval can be revolving or non-revolving, thus both limit and facility have the same nature.

The credit facility holds details about:

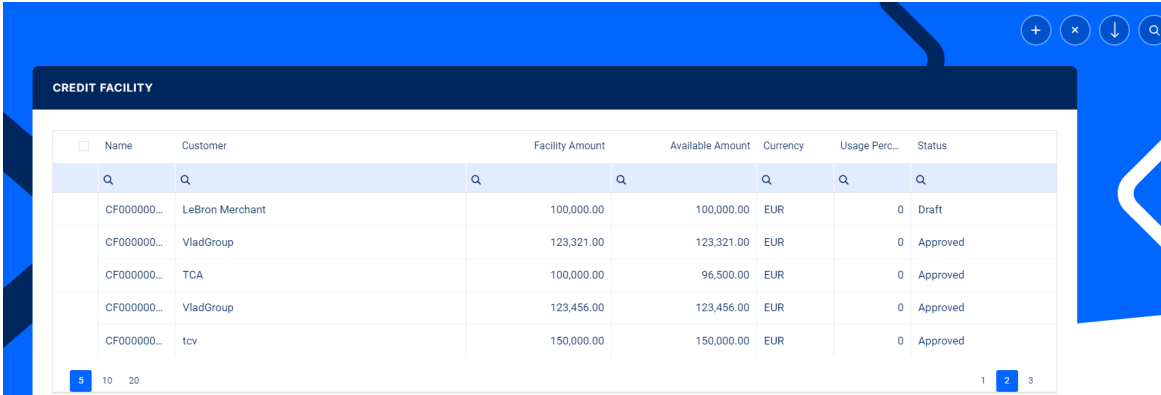
- Allowed banking products, with their preset currency;
- Allowed customers, if the facility is granted for a specific group of customers;
- Covenants, if needed;
- Prices:
  - Unused amount fee, as a percentage to be applied to daily unused amount. The fee is collected from current/ servicing account with a given frequency/ periodicity;
  - Interest and commission related elements, for negotiable product costs.

Loan contracts are entered whenever the customer asks for disbursements, according to the credit facility setup.

## Managing Credit Facilities

To manage credit facilities:

1. In FintechOS Portal, click the main menu icon and expand the **Loan Management Operational** menu.
2. Click **Credit Facility** menu item to open the **Credit Facility** page.



Name	Customer	Facility Amount	Available Amount	Currency	Usage Perc...	Status
CF000000...	LeBron Merchant	100,000.00	100,000.00	EUR	0	Draft
CF000000...	VladGroup	123,321.00	123,321.00	EUR	0	Approved
CF000000...	TCA	100,000.00	96,500.00	EUR	0	Approved
CF000000...	VladGroup	123,456.00	123,456.00	EUR	0	Approved
CF000000...	tcv	150,000.00	150,000.00	EUR	0	Approved

On the **Credit Facility** page, you can [create a new credit facility](#), search, edit, or delete existing ones in Draft status.

## Credit Facility Life Cycle and States

Credit facilities are complex agreements between a bank and its customers. Therefore the four-eyes principle is applicable here, meaning that a record should be approved by a second bank employee, with higher authorization rights.

A credit facility record has the following business workflow statuses:

- **Draft** - the status of a newly created credit facility record that was not yet sent for approval. While in this status, you can edit the fields from the record's **Credit Facility** tab, but you can't add utilizations to it. Send the record to approval after editing all the necessary details.
- **Pending** - a system status applied to credit facilities sent for approval, but not yet approved. You can't perform any updates in this system status.
- **Approved** - the status of a credit facility record after being authorized by a user with credit facility approval competencies. While in this status, you can't edit the record's details, but you can add utilizations to it within the **Credit Facility Utilizations** tab. If you need to alter the credit facility's details, create a new version based on the current credit facility.

### NOTE

Each facility utilization must also be approved by a user with credit facility utilization approval competencies, otherwise, the disbursement of the utilization is performed by Loan Management.

- **Unapproved** - the last status of a credit facility, after manually canceling it directly from Draft status. You can't perform any updates on the record.
- **Closed** - the last status of a credit facility, after manually closing it or after creating a new version based on the current version. You can't perform any updates on the record.

**IMPORTANT!**

In order to use the credit facility, it must be in the **Approved** status.

## Credit Facility Versioning

Loan Management allows you to [create new versions for an existing credit facility](#) if you need to modify an existing approved one.

A credit facility version can have the following statuses:

- **Version Draft** - the status of a newly created credit facility version record that was not yet sent for approval. While in this status, you can edit some fields, but you can't add utilizations to it. Send the record to approval after editing all the necessary details.
- **Approved** - the status of a credit facility version record after being authorized by a user with credit facility approval competencies. While in this status, you cannot edit the record's details, but you can add utilizations to it.
- **Version Closed** - the last status of a credit facility version, after manually closing it or after creating another new version based on the current version. You can't perform any updates on the record.

## Credit Facility Life Cycle

First, an agreement is made between a financial institution and a customer - usually, a legal entity, for the customer to have easy access to funds whenever in whichever banking product they need it. The amount cannot exceed the customer's approved **Total Exposure** type limit.

This agreement is recorded in the financial institution's system by a clerk, in the form of a credit facility. All details of the agreement are captured while [creating the credit facility](#) record: who are the participants with access to funding, what's the usable amount in the chosen currency, what products can be used within this agreement, when is the agreement applicable, under which conditions, whether the facility's



amount increases or decreases over time, and so on. The clerk fills in all the mandatory details, saves the record still in **Draft** status, and then [sends it for approval](#).

Another employee of the financial institution, with higher authorization rights and with credit facility competencies, consults the record and [approves or rejects the credit facility](#), depending on the details entered before by the creator of the record. If rejected, the credit facility's status becomes **Closed**.

If approved, the credit facility, now in **Approved** status, can be used by the customer to access funds. Its details cannot be altered anymore, but the clerk can [add utilizations](#) to it up until the credit facility's maturity date, in the form of contracts for banking products listed in the credit facility.

These utilizations, being in fact banking contracts, after creation are still in **Draft** status, and thus have to be further [approved](#) by a second employee of the bank, with corresponding contract approval rights. After being approved, a utilization disburses its amount in the customer's account. This amount is taken from the credit facility, thus the available amount is lowered with the sum of the approved utilization.

#### NOTE

The total amount of approved utilizations, in any of the banking products' currencies, cannot exceed the amount approved in the credit facility, calculated in the facility's currency based on the exchange rate valid on each day.

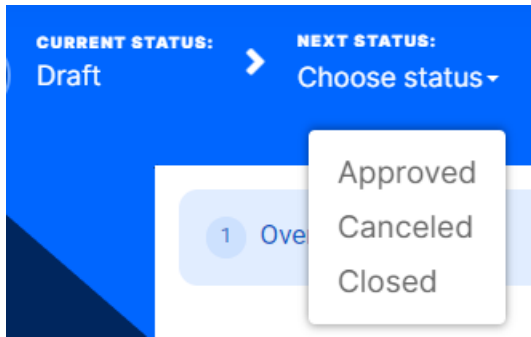
Fee values and accruals are calculated for the approved utilizations and displayed in the **Credit Facility Utilizations** tab, along with any repayment notifications.

You can manually close credit facilities if needed. Records in **Closed** status cannot be altered in any way.

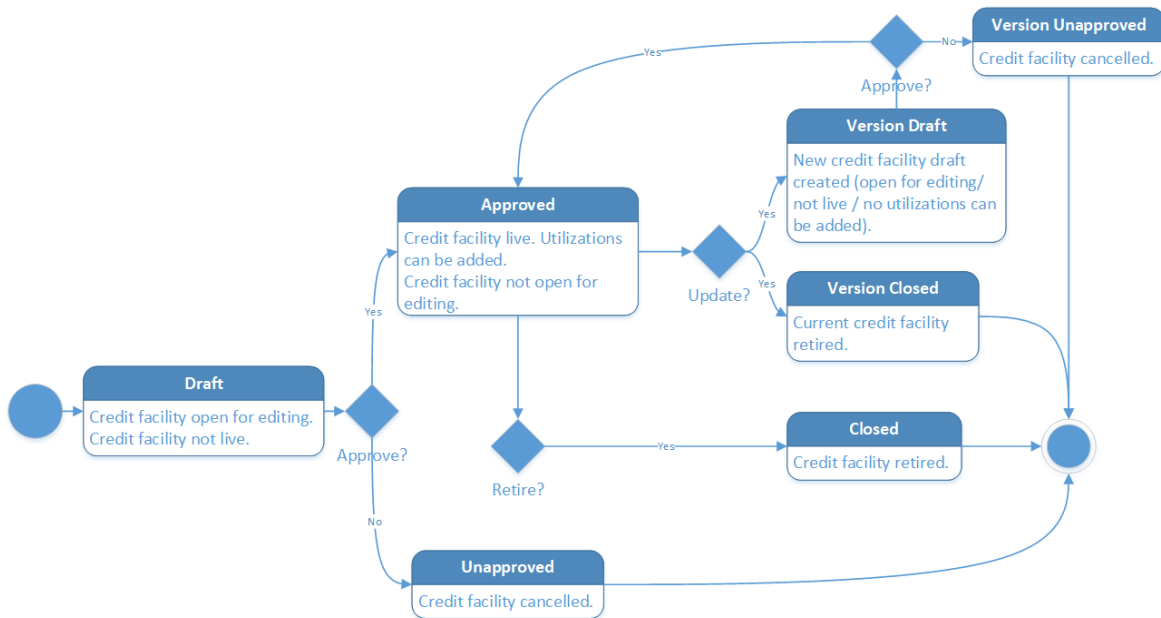
If you have to update the details of an approved credit facility, then you must create a [new version of the record](#). The new version of the record is created in Draft status, thus restarting the life cycle.

## Changing Credit Facility Statuses

You can manage a credit facility's life cycle by changing its status from the top right corner of the screen.



The credit facility status transitions are illustrated below:



Note that:

- Once a record is live, its settings can no longer be modified.
- If you want to update the details of a live credit facility, you must create a new credit facility version.
- When you create a new credit facility version, the current version is retired; no updates are allowed on the retired version.
- Every credit facility version starts in a draft state and must go through an approval

process before going live.

- Only one version of a credit facility can be live at one time.

**NOTE**

As a best practice, new records or new versions of existing records created on a specific day should be approved on the same day.

## Creating Credit Facilities

A credit facility is a grouping of multiple credit products that a customer has arranged with a financial institution under a single credit limit.

Before creating a credit facility, make sure that:

- the customer is recorded in Loan Management,
- a settlement account (a current account contract for the same customer) is set up for the desired currency,
- and the limits are configured according to Loan Management's setup.

To create a new credit facility:

### 1. Add Details

1. Open the **Credit Facility** page as described in the [Managing Credit Facilities](#) section.
2. Click the **Insert** button to display the **Add Credit Facility** page. The **Credit Facility** tab requires the basic elements for the creation of a credit facility such as customer, facility amount and currency, period, attached customer limit. Other important details such as participants, products, plans, fees, and contract covenants are captured in specialized sections of the same tab.

3. Fill in the following fields, also available for completion when updating a record in **Draft** status:

1 Credit Facility	2 Credit Facility Utilizations	3 History
<b>Customer</b> <input type="text" value="Mimi SRL"/>	<b>Currency</b> <input type="text" value="EUR"/>	<b>Facility Amount</b> <input type="text" value="100,000"/>
<b>Facility Date</b> <input type="text" value="21/05/2021"/>	<b>Approval Date</b> <input type="text"/>	<b>Review Date</b> <input type="text" value="23/08/2021"/>
<b>Period Type</b> <input type="text" value="Months"/>	<b>Period</b> <input type="text" value="12"/>	<b>Maturity Date</b> <input type="text" value="21/05/2022"/>
<b>Customer Limit</b> <input type="text" value="CL000000080"/>	<b>Current Account</b> <input type="text"/>	<b>Is Revolving</b> <input checked="" type="checkbox"/>
<b>Interest</b> <input type="text" value="Fix Eur 5%"/>	<b>Margin</b> <input type="text" value="0.5"/>	<b>Max Utilization Date</b> <input type="text" value="20/05/2022"/>
<b>Available Amount</b> <input type="text" value="100,000"/>		

- **Customer** - Select from the list the name of the customer with whom the financial institution agreed upon the credit facility. Changing the selected customer at a later point of the record creation process leads to emptying the **Current Account** and **Customer Limit** fields, if these were already selected.
- **Currency** - Select from the list the currency of the credit facility. If the banking products attached to the credit facility are defined in different currencies, then their values are converted in this currency when calculating the facility's available amount. Changing the selected currency at a later point of the record creation process leads to emptying the **Current Account** field, if this was already selected.
- **Facility Amount** - Enter the amount agreed upon to grant within the credit facility, expressed in the currency selected above. The facility amount cannot exceed the selected customer limit's value.
- **Facility Date** - Select the date when the facility becomes active. The maturity date is automatically calculated following the formula: **Facility Date + (Period \* Period Type)**.
- **Period Type** - Select from the list the period type for the facility's validity.

- **Period** - Enter the number of periods during which the facility is valid.
- **Customer Limit** - Select a customer limit from the list of limits approved for the chosen customer. The list is already filtered to display only the selected customer's already approved **Total Exposure** type limits that have **Is Revolving = True** at the limit level.

#### NOTE

The previously entered facility amount cannot exceed the selected customer limit's value.

- **Current Account** - Select the customer's bank account where the credit facility amount can be disbursed. The list is already filtered to display only the selected customer's bank accounts in the currency selected before for the credit facility.
4. Optionally, view or fill in the following fields:
- **Approval Date** - This is the date when the credit facility record is approved by a user with credit facility approval competencies. This date is automatically displayed when the record's status changes to **Approved**.
  - **Review Date** - Enter the date when the credit facility's amount should be reviewed for possible adjustments.
  - **Maturity Date** - This is the automatically calculated maturity date of the credit facility. You can modify this date from the attached calendar, if needed.
  - **Is Revolving** - Select this checkbox to mark the credit facility as revolving. This means that the customer can borrow money repeatedly up to the entered facility amount while repaying a portion of the current balance due in regular installments. Each payment, minus the interest and fees charged, replenishes the available amount.

- **Interest** - Select from the list the interest applicable for the credit facility amount. The list is already filtered to display only the interests defined in the selected currency.
- **Margin** - Enter a margin for the credit facility amount.
- **Max Utilization Date** - Select from the calendar the maximum date when the credit facility's available amount can be disbursed through utilizations.
- **Available Amount** - This is the amount still available in the credit facility after disbursing the amounts specified in the approved utilizations, expressed in the facility's currency.  
At creation time, Available Amount = Facility Amount.

5. Click the **Save and Reload** button.

### NOTE

When creating a credit facility, fill in all the mandatory fields. After saving the credit facility, all the other sections of the **Credit Facility** page become visible and can be completed.

## 2. Insert Participants

You can insert, delete, or export customers who can participate in this credit facility within the **Credit Facility Participants** section. After the first save operation, Loan Management adds the customer as the main facility participant. If the customer is a group, then all the group members are also added.

#### CREDIT FACILITY PARTICIPANTS

CREDIT FACILITY PARTICIPANTS					
<div> <span>+ Insert</span> <span>✕ Delete</span> <span>📄 Export</span> <span>🔄 Refresh</span> </div>					
<input type="checkbox"/>	Customer	Credit Facility	Customer Facility Amount		Is Main
	🔍	🔍	🔍	🔍	(All) ▼
	Mimi SRL	CF-000000167	100,000.00	100,000.00	<input checked="" type="checkbox"/>
	John Doe	CF-000000167	100,000.00	100,000.00	<input type="checkbox"/>

To add a participant, follow these steps:

1. Click the **Insert** button to display the **Credit Facility Participant** page.
2. Fill in, modify or view the following fields:
  - **Customer** - Select from the list the name of the customer who can participate to the selected credit facility.
  - **Customer Facility Amount** - This is automatically filled with the facility amount. You can modify the amount that this specific participant can use within the credit facility. The entered amount cannot exceed the available amount of the facility.
  - **Available Amount** - This read-only field displays the available amount of the facility.
3. Click the **Save and Close** button.

**NOTE**

For information purposes, the **Credit Facility Participant** page also displays the **Facility Utilizations** section, containing a list with all the credit facility utilizations corresponding to the selected customer. You cannot perform any action on the records within this list.

### 3. Associate Banking Products

You can insert, delete or export banking products which can be utilized through this credit facility in the **Credit Facility Products** section.

**CREDIT FACILITY PRODUCTS**

CREDIT FACILITY PRODUCTS					
<div> <span>+ Insert</span> <span>✕ Delete</span> <span>📄 Export</span> <span>🔄 Refresh</span> </div>					
<input type="checkbox"/>	Customer Name	Name	Product Facility Amount	Available Amount	Is Revolving
	Q	Q	Q	Q	(All) ▾
		Overdraft EUR test	30,000.00	30,000.00	<input type="checkbox"/>
		TL_EUR Holiday Shift BW Due Date	30,000.00	30,000.00	<input checked="" type="checkbox"/>
	Mimi SRL	TL_EUR Holiday Shift FW no Due Da...	50,000.00	50,000.00	<input checked="" type="checkbox"/>

To add a banking product, follow these steps:

1. Click the **Insert** button to display the **Credit Facility Products** page.
2. Fill in, modify or view the following fields:

- **Product Facility Amount** - This is automatically filled with the facility amount. You can modify the amount that can be disbursed through the use of this product within the credit facility's utilizations. The entered amount cannot exceed the facility amount.
- **Available Amount** - This read-only field displays the available amount of the facility.
- **Allowed Customer** - Select from the list the customers who is allowed to use this banking product through credit facility utilizations, if the use of this banking product has to be restricted to certain customers. The list is already filtered to display only the customers defined as participants in this credit facility record.
- **Banking Product** - Select from the list the banking product that can be used through credit facility utilizations.
- **Is revolving** - Select this checkbox to mark the banking product used through the credit facility utilizations as revolving. This means that the customer can borrow money repeatedly up to the entered product facility amount while repaying a portion of the current balance due in regular installments. Each payment, minus the interest and fees charged, replenishes the available amount.

3. Click the **Save and Close** button.

#### NOTE

For information purposes, the **Credit Facility Products** page also displays the **Facility Utilizations** section, containing a list with all the credit facility utilizations already created for the selected banking product. You cannot perform any action on the records within this list.

## 4. Create Plans

You can insert, delete or export plans for the increase or decrease of the facility amount during the credit facility's duration in the **Credit Facility Plans** section.



## CREDIT FACILITY PLANS

+ Insert
✕ Delete
📄 Export
🔄 Refresh

<input type="checkbox"/>	Name	Credit Facility	Amount	Percent	Start Date	Maturity Date
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	CF Plans 0000031	CF-000000167	5,000.00		24/05/2021	18/02/2022

To add a plan, follow these steps:

1. Click the **Insert** button to display the **Credit Facility Plans** page.
2. Fill in, modify or view the following fields:
  - **Amount** - Enter the amount which affects the credit facility plan. Use negative values if you wish to decrease the facility amount. Positive values increase the facility amount. This field is mandatory only if Percent is not filled in, otherwise, it can't be completed.
  - **Periodicity Type** - Select from the list the periodicity type applicable for the facility plan. The possible values are Semestrial, Weekly, Monthly, Annual, Bimonthly, Trimestrial, Once, 4 Weeks.
  - **No Times** - Enter the number of times the plan should increase or decrease of the facility amount, until the credit facility's maturity date.
  - **Percent** - Enter the percent of facility amount which affects the credit facility plan. Use negative percent values if you wish to decrease the facility amount. Positive percent values increase the facility amount. Mandatory only if Amount is not filled in, otherwise, it can't be completed.
  - **Start Date** - Select from the calendar the first date when the plan should be executed. Depending on the periodicity type and number of times already completed for plan execution, the maturity date of the plan is calculated. The plan's maturity date cannot exceed the credit facility's maturity date.
  - **Maturity Date** - This read-only field displays the plan's maturity date based on the start date, periodicity type and number of

times already completed for plan execution.

3. Click the **Save and Close** button.

## 5. Enter Contract Covenants

You can insert, delete or export covenants, certain conventions that customers must abide by after getting the facility in the **Contract Covenants** section.

CONTRACTS COVENANT

<input type="checkbox"/>	Type	Covenant	Customer	Review Date	End Date	Resolution	Block Disburse...	Status
<input type="checkbox"/>	Q	Q	Q	Q	Q	Q	(All)	Q
<input type="checkbox"/>	Affirmative	Borrowers should perform tax oblig...	Mimi SRL				<input type="checkbox"/>	Active
<input type="checkbox"/>	Financial	Lender can monitor borrower's curr...	Mimi SRL			Legal agreeme...	<input type="checkbox"/>	Active

To add a covenant, follow these steps:

1. Click the **Insert** button to display the **Contracts Covenant** page.
2. Fill in, modify or view the following fields:
  - **Covenant** - Select from 3 possible covenants:
    - *Borrowers should perform tax obligations* - the lenders expect the borrowers to perform their tax obligations to both the business and towards their employees. This covenant is of affirmative type.
    - *Lender can monitor borrower's current ratio* - the lender may continuously monitor the borrower's current ratio to ensure it stays relatively attractive and promising. This covenant is of financial type.
    - *Lender possesses the right to prevent merges or acquisitions* - a clear stipulation that the lender possesses the right to prevent

merges of acquisitions without proper notification or full knowledge of the process. This covenant is of negative type.

- **Value** - Enter the value for the covenant.
  - **Covenant Type** - This field displays the type of the selected covenant. You can edit it, selecting one the possible values: Financial, Affirmative, or Negative.
  - **Review Frequency (Months)** - Enter the number of months applicable for the covenant review frequency.
  - **Review Date** - Enter the date when the covenant should be reviewed.
  - **Customer** - Select the customer who must abide by the covenant's terms. The list is already filtered to display only the customers defined as participants in this credit facility record.
3. Click the **Save and Reload** button.  
Loan Management displays a series of fields after the save operation.
  4. Fill in the following fields:
    - **Grace Period (Months)** - Enter the number of months acting as grace period for this covenant's resolution, if applicable.
    - **Resolution** - Select from the list the resolution of this covenant, if applicable.
    - **Resolve Date** - Enter the date when the covenant is achieved, if applicable.
    - **End Date** - Enter the last day when this covenant is applicable.
    - **Start Early Termination** - If you select this checkbox, then the credit facility agreement is terminated before its maturity date.
    - **Block Disbursement** - If you select this checkbox, then Loan Management blocks any further disbursements if the covenant is not achieved after end date.
  5. Activate the covenant by changing its status to **Active**.
  6. Click the **Save and Close** button.

## 6. Add Fees

You can insert, delete or export fees or commissions that are added to this credit facility in the **Credit Facility Fees** section.

### CREDIT FACILITY FEES

+ Insert
✕ Delete
■ Export
↻ Refresh

<input type="checkbox"/>	Name	Credit Facility	Fee	Fee Percentage	Fee Value	Fee Periodicity	Start Calculation Date
	Q	Q	Q	Q	Q	Q	Q
	CFF-48	CF-000000167	Commission Undrawn A...	0.1500		Monthly	24/05/2021
	CFF-49	CF-000000167	Corporate Loan Term Fr...	4.0000		Once	21/05/2021
	CFF-50	CF-000000167	Cancel Fee		100.00	Once	22/05/2021

To add a fee, follow these steps:

- Click the **Insert** button to display the **Credit Facility Fees** page.
- Fill in, modify or view the following fields:
  - Credit Facility** - This read-only field displays the id of the selected credit facility record.
  - Start Calculation Date** - Enter the start date for fee calculation.
  - Fee** - Select a fee to apply to the credit facility from the list of defined fees & commissions.
  - Fee Value, Fee Percentage, and Fee Periodicity** - These read-only fields display the value, the percentage, and the periodicity of the selected fee, as defined in Loan Management.
  - Use specific day for aggregation** - Enter a day of the month when the fee accrual should be aggregated.
  - Use End Of Month for Aggregation** - Select the checkbox to mark the last day of the month as aggregation day for the fee accrual. Mandatory only if the Use specific day for aggregation field is not completed.
- Click the **Save and Reload** button.  
A new list, **Credit Facility Fee Values**, is displayed for viewing after the save operation, containing the calculated fee values for the saved fee. The list displays the fee name, date, value and currency.

After filling in all the mandatory details in the **Credit Facility** tab, the record is still in **Draft** status. Change its status to **Send to Approved** to [send it for approval](#).

**NOTE**

You can add utilizations only for credit facility records with **Approved** status.

## Sending Credit Facilities for Approval

After creating a new credit facility and filling in all the mandatory details within the **Credit Facility** tab, the record is still in **Draft** status. In this status, the customer cannot access any funding through utilizations (the term for contracts opened for banking products attached to the facility).

You must first send the record for approval to an employee of the financial institution with corresponding competencies, following the 4-eyes principle.

As a clerk, you should change the credit facility's status to **Approved**. Loan Management automatically sends the record for approval to users with credit facility approval competencies.

For more details on how to perform a change of status, read the [Changing Credit Facility Statuses](#) section.

## Approving Credit Facilities

Credit facility records in **Draft** status must be approved in order to add utilizations to it. The record's status can be changed to **Approved** by users with credit facility approval competencies.

To approve a credit facility:

1. Log into FintechOS Portal with a user with credit facility approval competencies.
2. Access **Main** menu > **Approval Tasks** > **My Approval Tasks** to view your list of approval tasks.
3. Find the desired Credit Facility record in the **Approval Tasks List** page and double-click it to open.

APPROVAL TASKS LIST									
<input type="checkbox"/>	Subject to Approval	Subject Type	From Status	To Status	Assigned User	Competence Type	Competence Level	Creation Date	Approval De
<input checked="" type="checkbox"/>	CF-000000161	Credit Facility	Version Draft	Approved		CreditFacilityApproval	1	18/05/2021 13:35	
	CF-Details 0000079	Credit Facility Detail	Draft	Approved		CreditFacilityUtilizationApproval	1	18/05/2021 13:31	
	CF-000000160	Credit Facility	Version Draft	Approved	liviu.p	CreditFacilityApproval	1	18/05/2021 12:16	Approved
	CF-000000159	Credit Facility	Version Draft	Approved	madalina.butuc	CreditFacilityApproval	1	18/05/2021 12:02	Approved

4. Click the **Approve** button.

Follow the steps described on the [Approve Workflow Transitions](#) page for more detailed instructions.

After approving a credit facility, you can't edit the record's details, but you can [add utilizations](#) to it within the **Credit Facility Utilizations** tab. If you need to alter the credit facility's details, [create a new version](#) based on the current credit facility.

For more details, read about [user competencies](#) and [workflow transition approvals](#).

## Adding Utilizations to Credit Facilities

A credit facility utilization is a contract opened for banking products attached to the facility. You can add utilizations to a credit facility record when the record has the **Approved** status.

Follow these steps to add utilizations to a credit facility record:

1. On the **Credit Facility** page, double-click the desired credit facility with **Approved** status to edit it.
2. Select the **Credit Facility Utilizations** tab.

3. Click the **Insert** button in the **Facility Utilizations** section to open the **Insert credit Utilization** page.
4. Fill in the following fields:
  - **Customer** - Select the customer who becomes the owner of this utilization. The list is already filtered to display only the customers entered as participants in the credit facility.
  - **Banking Product** - Choose the banking product which is the object of this credit facility utilization. The list is already filtered to display only the banking products attached to the credit facility.
  - **Contract** - You can select an existing contract of the same customer containing the selected banking product where you can attach this credit facility utilization. The list is already filtered to display only the selected customer's contracts that contain that same banking product. If no contract is selected, Loan Management automatically creates a new contract for this credit facility utilization.

**NOTE**

The contract's start date cannot precede the utilization's start date.

- **Currency, Exchange Rate** - These read-only fields display the selected banking product's defined currency, respectively exchange rate for that currency.
  - **Utilization amount** - Enter the amount to be disbursed through this utilization, expressed in the selected banking product's currency.
  - **Utilization In Facility Currency** - This read-only field displays the utilization amount expressed in the credit facility's currency, calculated using the exchange rate displayed above.
  - **Facility Documents** - Add any credit facility utilization documents needed in this field, either by dragging and dropping the file, or by clicking the **Add file** button and selecting the desired file.
5. Click the **Save and Reload** button.

After saving the credit facility, other fields of the **Insert credit Utilization** page become visible and can be completed.

6. Fill in the following fields in the **Utilization details** section:

CURRENT STATUS  
DRAFT

NEXT STATUS  
CHOOSE STATUS -

CREDIT FACILITY  
CF-000000156

CREDIT UTILIZATION  
CF Details 0000088

Towilga On

Credit Utilization

Customer

TCV2

Contract

2308 STLUSD

Currency

USD

Utilization amount

550

Facility Documents

Add file or Drop file here

Utilization details

Product Interest

Euribor 6M

Minimum Interest Rate

Reference Rate Date

19/05/2021

Contract Period

365

Repayment Due Day

19

Current account

Banking Product

Traight Loan USD

Exchange Rate

0.89

Utilization In Facility Currency

489.5

Total Interest Rate

0.35

Margin

0.5

Reference Rate

-0.85

Schedule Type

STLUSD

Installment Method

Actual Period

- **Product Interest** - Select the product interest applicable for this utilization. The list is already filtered to display only the interests defined for the selected banking product.
- **Total Interest Rate** - This field displays the total interest rate of the utilization, as it was calculated for the selected banking product. You can edit the value.
- **Minimum Interest Rate** - Enter a minimum interest rate applicable for this utilization, if needed.
- **Margin** - Enter a margin applicable for this utilization, if needed.
- **Reference Rate Date** - Select from the calendar the date for the exchange reference rate to be used for utilization amount calculation, when the selected banking product was defined with a currency different from the credit facility's currency.
- **Reference Rate** - This field displays the value of the selected exchange reference rate. You can edit the value.
- **Contract Period** - This field displays the contract period in days, as it was defined for the selected banking product. You can edit the value.



- **Schedule Type** - Select the schedule type applicable for this utilization. The list is already filtered to display only the schedule types defined for the selected banking product.
- **Repayment Due Day** - This field displays the day in the month when the repayment is due, as it was defined for the selected banking product. You can edit the value.
- **Installment Method** - This field displays the installment calculation method, as it was defined for the selected banking product. You can edit the value, selecting one of the possible values:
  - **Actual Period** - The first installment should be paid on this month's repayment due date.
  - **Next Period** - The first installment should be paid on the next month's repayment due date.
- **Current account** - Select the current account for disbursing the amount for this utilization. The list is already filtered to display only the bank accounts opened in the facility's currency for the selected customer.

7. Click the **Save and Close** button.

The utilization record is saved in **Draft** status.

1 Credit Facility

2 Credit Facility Utilizations

3 History

FACILITY UTILISATIONS

+ Insert

Export

Refresh

<input type="checkbox"/>	Customer	Banking Product	Contract	Utilization In Facility Currency	Status
	Q	Q	Q	Q	Q
	Mirela22 Test-EndPoint-Final	Straight Loan	2272 Straight L	10,000.00	Closed
	TCV2	Traight Loan USD	2274 STLUSD	13,350.00	Pending
	TCV2	Traight Loan USD	2308 STLUSD	489.50	Draft

8. Double-click the utilization and send it to approval by changing its status to **Send to Approved**.

For more details on how to perform a change of status, read the [Changing Credit Facility Statuses](#) section.

**IMPORTANT!**

Each facility utilization must be **approved** by a user with credit facility utilization approval competencies, otherwise, Loan Management doesn't perform the disbursement of the utilization.

At any given time, the available amount of the credit facility = the facility amount - (the sum of all approved utilizations expressed in the facility's currency).

## Approving Utilization Requests

Credit facility utilization records (contracts opened based on the selected credit facility) in **Draft** status must be approved before the utilization's amount can be disbursed in the customer's account. The utilization record's status can be changed to **Approved** by users with credit facility utilization approval competencies.

To approve a credit facility utilization:

1. Log into FintechOS Portal with a user with credit facility utilization approval competencies.
2. Access **Main** menu > **Approval Tasks** > **My Approval Tasks** to view your list of approval tasks.
3. Find the desired Credit Facility Detail record on the **Approval Tasks List** page and double-click it to open.

APPROVAL TASKS LIST									
Subject to Approval	Subject Type	From Status	To Status	Assigned User	Competence Type	Competence Level	Creation Date	Approval De	
CF-000000161	Credit Facility	Version Draft	Approved		CreditFacilityApproval	1	18/05/2021 13:35		
<input checked="" type="checkbox"/> CF Details 0000079	Credit Facility Detail	Draft	Approved		CreditFacilityUtilizationApproval	1	18/05/2021 13:31		
CF-000000160	Credit Facility	Version Draft	Approved	liviu.p	CreditFacilityApproval	1	18/05/2021 12:16	Approved	

4. Click the **Approve** button.

Follow the steps described on the [Approve Workflow Transitions](#) page for more detailed instructions. For more information, read about [user competencies](#) and [workflow transition approvals](#).

After approving a credit facility utilization, you can't edit the utilization's details.

An approved utilization disburses its amount in the customer's account. Loan Management takes this amount from the credit facility, thus the facility's available amount is lowered with the sum of the approved utilization.

**NOTE**

The total amount of approved utilizations, in any of the banking products' currencies, can't exceed the amount approved in the credit facility, calculated in the facility's currency based on the exchange rate valid on each day.

Fee values and accruals are automatically calculated by Loan Management for the approved utilizations, and displayed in the **Credit Facility Utilizations** tab, along with any repayment notifications. Read the "[Managing Credit Facility Utilization Details](#)" [below](#) for more details.

## Managing Credit Facility Utilization Details

A credit facility utilization is a contract opened for banking products attached to the facility.

You can find the details of the credit facility such as facility utilizations, fee values, accruals and repayment notifications in a credit facility record's **Credit Facility Utilizations** tab. There is no information here to display for records in **Draft** status. You can [add utilizations](#) only after the record reaches **Approved** status.

Here are the actions that you can perform on utilizations already added to a credit facility record:

### View & Update Utilizations

You can view, insert or export contracts based on the banking products added to this credit facility in the **Facility Utilizations** section within a credit facility record's **Credit Facility Utilizations** tab. These contracts are known as utilizations.

## FACILITY UTILISATIONS

+ Insert
Export
Refresh

<input type="checkbox"/>	Customer	Banking Product	Contract	Utilization In Facility Currency	Status
	Q	Q	Q	Q	Q
	Mimi SRL	TL_EUR Holiday Shift BW Due Date	2348 TLEHBWDD	35,000.00	Draft
	Mimi SRL	Overdraft EUR test	2354 OD EUR	15,000.00	Closed
	Mimi SRL	TL_EUR Holiday Shift BW Due Date	2356 TLEHBWDD	39,000.00	Approved

To add a utilization, perform the steps described on the [Adding Utilizations to Credit Facilities](#) page.

The already added utilizations are displayed in a list with the following fields:

- **Customer** - The name of the customer who is the owner of this utilization.
- **Banking Product** - The banking product which is the object of this credit facility utilization.
- **Contract** - The number of the contract holding this credit facility utilization, either selected when adding the utilization, or automatically created by Loan Management.
- **Utilization in Facility Currency** - The amount specified in the credit facility utilization, expressed in the credit facility's currency.
- **Status** - The status of the credit facility utilization record. The possible values are:
  - **Draft** - The utilization was created, but it needs further approval.
  - **Approved** - The utilization was approved and its amount was disbursed in the customer's designated current account.
  - **Closed** - The utilization reached its final unalterable status either by being rejected during the utilization approval process, or manually by changing the record's status.

To update a utilization in **Draft** status:

1. Double-click to open the **Credit Utilization** page.
2. Update the editable fields of the utilization according to your needs.

3. Click the **Save and Close** button.

### IMPORTANT!

Approve credit facility utilizations to instruct Loan Management to disburse the amount of the contract in the customer's account.

## View Fee Values

You can see or export the fee values already applied to this credit facility in the **Credit Facility Fee Values** section within the **Credit Facility Utilizations** tab.

#### CREDIT FACILITY FEE VALUES

 Export  Refresh

<input type="checkbox"/>	Fee	Date Fee	Value	Currency
<input type="checkbox"/>	Q	Q	Q	Q
	Corporate Loan Term Front-End Fee EUR	21/05/2021	400,000.00	EUR
	Cancel Fee	22/05/2021	100.00	EUR

To view the details of a fee:

1. Double-click the fee to display the **Credit Facility Fee Value** page.
2. View the following information regarding the fee:
  - **Credit Facility** - The id of the selected credit facility record.
  - **Fee** - The fee applied to the credit facility.
  - **Date Fee** - The date when the fee was applied to the credit facility.
  - **Customer** - The customer who must pay the fee value.
  - **Currency** - The currency of the fee.
  - **Repayment Notification** - The number of the repayment notification automatically generated by Loan Management.

- **Loan Item** - The type of the fee.
- **Value** - The value of the fee, expressed in the fee's currency.

3. Click the **Save and Close** button.

## View Accruals

You can see or export the values of the accrual automatically calculated by Loan Management for this credit facility in the **Credit Facility Accruals** section of the **Credit Facility Utilizations** tab.

CREDIT FACILITY ACCRUALS

[Export](#) [Refresh](#)

<input type="checkbox"/>	Accrual Date	Accrual Value
<input type="checkbox"/>	Q	Q
	23/05/2021	87.67
	22/05/2021	87.67

Each accrual lists the following information:

- **Accrual Date** and **Accrual Value** - The date and the value of the accrual calculation, expressed in the credit facility's currency.
- **Fee** - The fee or commission based on which the accrual was calculated. This is only displayed on the **Credit Facility Accrual** page, opened if you double-click an accrual record for viewing purposes.

## View & Correct Repayment Notifications

You can see, update or export the repayment notifications automatically issued by Loan Management for this credit facility in the **Repayment Notifications** section of the **Credit Facility Utilizations** tab.

REPAYMENT NOTIFICATIONS

[Export](#) [Refresh](#)

<input type="checkbox"/>	No	Customer	Date	Currency	Amount	Remaining	MaturityDate
<input type="checkbox"/>	Q	Q	Q	Q	Q	Q	Q
	191163	Mimi SRL	22/05/2021	EUR	100.00	100.00	22/05/2021
	191162	Mimi SRL	21/05/2021	EUR	400,000.00	400,000.00	21/05/2021

Each repayment notification lists the following information: number, issuance date, the customer participant to the credit facility for whom the repayment notification was issued, the amount, the currency, and the due date of the notification, as well as the amount that remains to be paid by the customer for this repayment notification.

To update a repayment notification:

1. Double-click a record to open the **Edit Repayment Notification** page.
2. View the details of the repayment notification.

EDIT REPAYMENT NOTIFICATION

REPAYMENT NOTIFICATION

No.

191163

Notification Date

22/05/2021

Contract

Currency

EUR

Maturity Date

22/05/2021

Total Amount

100

REPAYMENT NOTIFICATION DETAILS

Export

Refresh

Operation Item	Value	Remaining Value	Is Paid
Payment Holiday Fee	100.00	0.00	<input checked="" type="checkbox"/>

PAYMENT ALLOCATIONS

Payment No.

Payment Date

Operation Item

Allocated Amount

Due Date

Delay (days)

No data

CORRECTIONS

Insert

Export

Refresh

Customer	Correction Date	Currency	Total Correction
Minni SRL	24/05/2021	EUR	100.00

3. If needed, insert corrections by clicking the **Insert** button next to the **Corrections** section.
4. On the newly displayed **Add Contract Correction Entry** page, view in the following details: repayment notification number, contract, currency, the name of the customer, the date when the correction entry is saved, and the sum of values entered for in the correction entry details section.
5. In the **Contract Correction Entry Details** section, fill in the following details:
  - **Repayment Notification Detail** - Select the repayment notification detail to be corrected.
  - **Operation Item** - Select the operation item.
  - **Correction Value** - Enter the desired value.

6. The correction entries must be approved in order to be processed.  
Change the record's status to **Approved**.
7. Click the **Save and Reload** button after performing the desired updates.

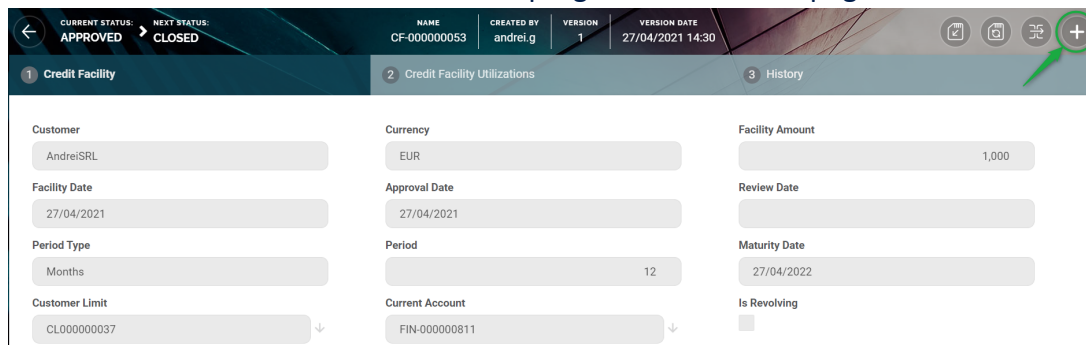
The repayment notification is automatically marked as paid (the **IsPaid** checkbox in the **Repayment Notification details** section is selected) after the payment is processed, either by a Loan Management process or by adding a manual correction.

## Creating New Versions of Existing Credit Facilities

In Loan Management, the credit facilities are [set up for versioning](#). Thus, if you want to update the details of an approved credit facility, then you must create a new version of the record.

To create a new version for a record with the **Approved** status, follow these steps:

1. While in the **Credit Facility List** page, double-click the credit facility record selected for updates.
2. Click the **New Version** button in the top right corner of the page.



The screenshot shows the 'Credit Facility' form with the following fields and values:

CURRENT STATUS: APPROVED		NEXT STATUS: CLOSED		NAME	CREATED BY	VERSION	VERSION DATE
				CF-000000053	andrei.g	1	27/04/2021 14:30

Below the header, there are three tabs: 1 Credit Facility, 2 Credit Facility Utilizations, and 3 History. The 'Credit Facility' tab is active.

The form fields are organized into three columns:

- Customer:** AndreiSRL
- Facility Date:** 27/04/2021
- Period Type:** Months
- Customer Limit:** CL000000037
- Currency:** EUR
- Approval Date:** 27/04/2021
- Period:** 12
- Current Account:** FIN-000000811
- Facility Amount:** 1,000
- Review Date:**
- Maturity Date:** 27/04/2022
- Is Revolving:** ☐

A green circle and arrow highlight the '+' button in the top right corner of the form, which is used to create a new version.

A new version of the credit facility is created, with **Version Draft** status, thus restarting the [life cycle](#).



3. Edit the desired fields in the **Credit Facility** tab.
4. Click the **Save and Reload** button.

If you approve the draft version, then the original record transitions into the **Version Closed** status and the secondary version becomes the **Approved** currently active credit facility record.

Read more details about versioning a record on the [How to Version an Entity Record](#) page.

## Viewing a Credit Facility's History

You can view the versions of the credit facility, their workflow status and the user who modified the record, in the credit facility's **History** tab.

1	Credit Facility	2	Credit Facility Utilizations	3	History
HISTORY					
<input type="button" value="Refresh"/> <input type="button" value="Export"/>					
<input type="checkbox"/>	Name	Label	Attribute Version Date		Attribute Version
	Q	Q	Q	Q	Q
	CF-000000167	Approved	21/05/2021 03:00	1	mirela

Here you can track the record's life cycle and review older versions that are no longer active (for details, see [Credit Facility Statuses](#)).

There are no edits allowed in this tab. Double-click a version in the list to view its details.

# Dashboards and Reports

Loan Management facilitates user interaction with a series of in-built dashboards and reports. According to their specific destination, they aid the bank employees in their daily tasks, displaying important, up-to-date information on the statuses of different contracts, events, limits, needed approval tasks, generating reports or offering easy navigation through a button to record creation pages.

These dashboards can be accessed from the FintechOS Portal's **Home** page in accordance with each user's specific access rights.

The following dashboards and reports come along with your Loan Management package:

- **Contracts** - displays a list of the contracts along with a pie-chart specifying the number of contracts in each business status, a list of contract approval requests and a button to access the **Add Contract** page.
- **Customer Limits** - displays a list of the existing customer limit records, a list of the customer limit approval requests and a button for [adding new customer limits](#).
- **Soon to Expire Overdrafts** - displays a list of contracts based on current accounts with overdraft banking products whose overdraft functionality is about to expire.
- **Credit Facility Dashboard** - displays a list of the credit facility records along with a pie-chart specifying the number of credit facilities in each business status, separate lists of credit facility approval requests, utilizations and utilizations approval requests, and a button to access [the Create Credit Facility page](#).
- **Reports** - contains links to a series of reports such as repayment notifications past due, collaterals in default, limits, closure of contracts, future installments or past due installments.
- **Records To Be Purged** - displays the list of records in Draft status that are scheduled to be deleted at the current day's end, grouped on tabs specific for each transaction type: disbursement, early repayments, top-ups, early termination for deposits, loan contracts, payment holidays, reschedule overdue, withdraws, transfers, returned amount or goods, or agreements. Also displays

tabs with agreement records in Draft status that are scheduled to be purged.

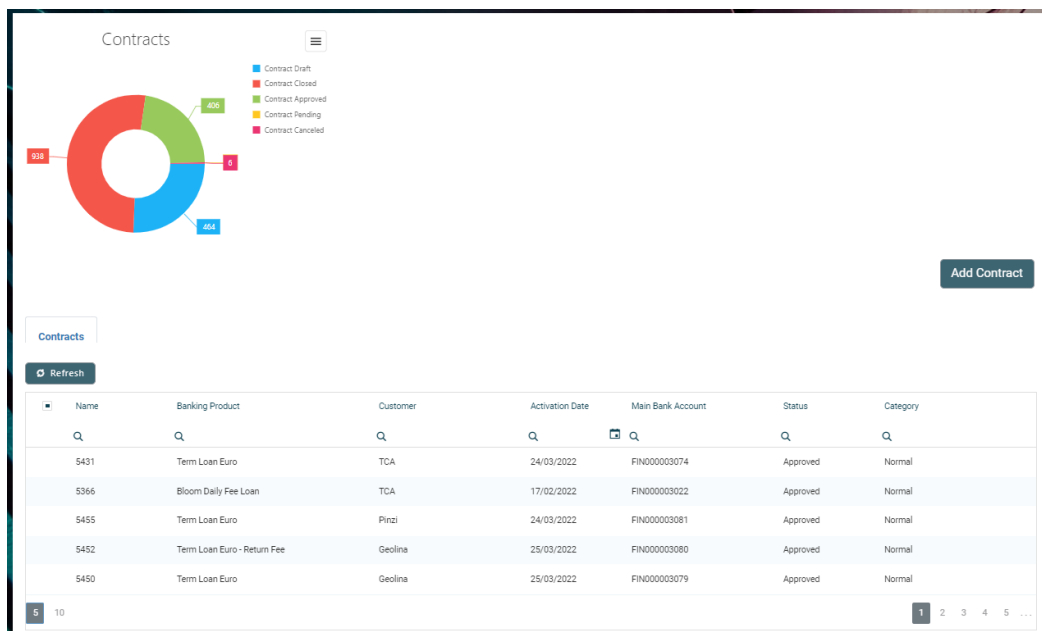
- **DLQ Messages** - the dead letter queue dashboard stores messages about the requests that the **Async Engine** could not process for any reason and allows you to send them for reprocessing.
- **Back-Office Dashboard** - focuses on improving the experience and productivity of **Loan Admin Officer** users in their day-to-day tasks, displaying important notices, KPIs and metrics, overview information about contracts, customers, limits, collaterals, credit facilities, third-party agreements, transactions, as well as an integrated journal for keeping notes and files meaningful for their work.

## Contracts

The **Contracts** dashboard displays a list of the contracts created in the system and a list of contract approval requests. The lists can be filtered on every column. Access records from the lists by double-clicking them.

The **Add Contract** button facilitates your access to the **Create Contract** page, where you can create new contracts.

The dashboard also shows a visual of the contracts within the system, displaying a pie-chart that specifies the number of contracts in each status: Contract Draft, Contract Closed, Contract Approved, Contract Pending, and Contract Canceled.



This dashboard can be accessed by users with the following [predefined security roles](#), but note that some actions may be limited according to the role setup:

- Loan Admin Officer
- Supervisor Corporate Officer
- Supervisor Retail Loans Officer
- Corporate Credit Officer
- Retail Credit Officer
- Supervisor Risk Officer
- Risk Officer.

## Customer Limits

The **Customer Limits** dashboard displays a list of the customer limit records created in the system and a list of customer limit approval requests. The lists can be filtered on every column. Access records from the lists by double-clicking them.

The **Add New Customer Limit** button helps you [add new customer limits](#).

CONTRACTS

CUSTOMER LIMITS

SOON TO EXPIRE OVERDRAFT

REPORTS

Customer Limits

Customer Limits Approval requests

Add New Customer Limit

Refresh

<input type="checkbox"/>	Customer	Limit Type	Business Status	Limit Amount	Available Limit A...	Currency	Expire Date	IsSecured	Product	Product Type	Review Date
	🔍	🔍	🔍	🔍	🔍	🔍	🔍📅	(All) ▾	🔍	🔍	🔍📅
		Product Exposure	Approved	5,000.00	5,000.00	USD	05/08/2020	<input type="checkbox"/>	Term Deposit USD		05/08/2020
		Product Exposure	Approved	5,000.00	5,000.00	USD	03/11/2020	<input type="checkbox"/>	Onboarding Loan		03/11/2020
		Product Exposure	Approved	5,000.00	5,000.00	USD	05/08/2020	<input type="checkbox"/>	Corporate Term ...		05/08/2020
	LelaS	Exchange Expos...	Approved	10,000.00	10,000.00	EUR	05/07/2022	<input type="checkbox"/>			24/12/2021
		Product Type Ex...	Approved	10,000.00	10,000.00	USD	03/08/2020	<input checked="" type="checkbox"/>		Term Loan	03/08/2020

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This dashboard can be accessed by users with the following [predefined security roles](#), but note that some actions may be limited according to the role setup:

- Loan Admin Officer
- Supervisor Corporate Officer
- Corporate Credit Officer
- Supervisor Risk Officer
- Risk Officer.

## Soon to Expire Overdrafts

The **Soon to Expire Overdrafts** dashboard displays a list of the contracts created in the system based on current account with overdraft banking products whose overdraft functionality is about to expire. The Loan Management system parameter `CurrentAccount_WithOverdraft_DaysBeforeExpire` determines the number of days before overdraft expiration when the contract can be displayed in this dashboard.

The lists can be filtered on every column. Access records from the lists by double-clicking them.

CONTRACTS CUSTOMER LIMITS <b>SOON TO EXPIRE OVERDRAFT</b> REPORTS				
<a href="#">Refresh</a>				
Name	Banking Product	Customer	Activation Date	Expire date for Overdraft
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2811 AG_OVD	Overdraft BankAccount	Oana Customer2	09/07/2021	20/07/2021
2851	Overdraft BankAccount	Oana Customer2	12/07/2021	20/07/2021

This dashboard can be accessed by users with the following [predefined security roles](#), but note that some actions may be limited according to the role setup:

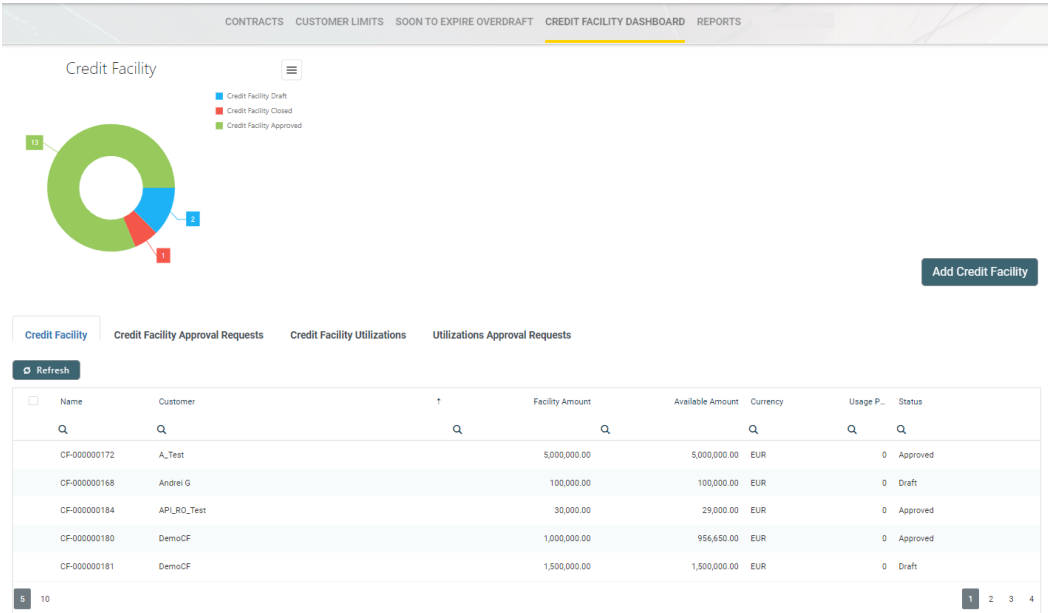
- Loan Admin Officer
- Supervisor Corporate Officer
- Supervisor Retail Loans Officer
- Corporate Credit Officer
- Retail Credit Officer
- Supervisor Risk Officer
- Risk Officer.

## Credit Facility Dashboard

The **Credit Facility** dashboard displays a list of the credit facility records created in the system. It also displays separate lists of credit facility approval requests, utilizations and utilizations approval requests. The lists can be filtered on every column. Access records from the lists by double-clicking them.

The **Add Credit Facility** button facilitates your access to [the Create Credit Facility page](#), where you can create new credit facilities.

The dashboard also shows a visual of the credit facilities within the system, displaying a pie-chart that specifies the number of records in each status: Credit Facility Draft, Credit Facility Closed, and Credit Facility Approved.



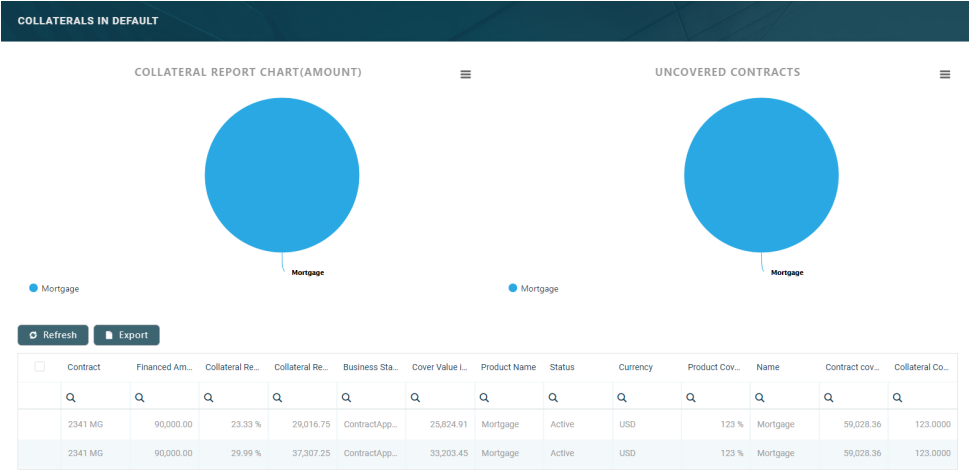
This dashboard can be accessed by users with the following [predefined security roles](#), but note that some actions may be limited according to the role setup:

- Loan Admin Officer
- Supervisor Corporate Officer
- Corporate Credit Officer
- Supervisor Risk Officer
- Risk Officer.

# Reports

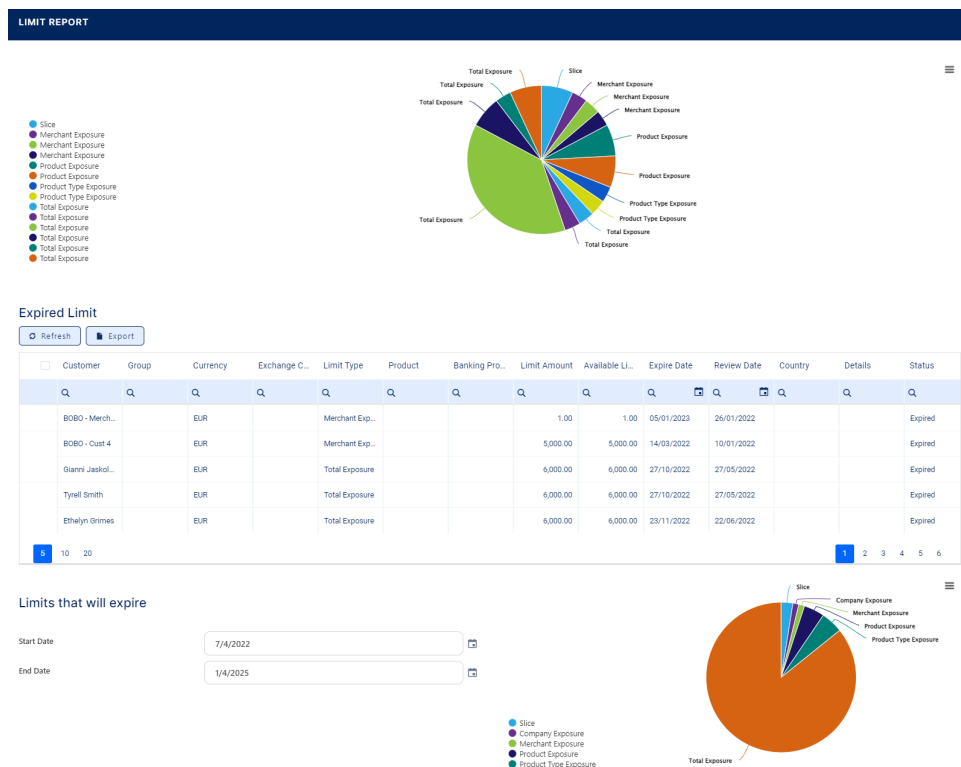
The **Reports** dashboard contains links to a series of reports:

- **Report Days Past Due** - Click this link to display the report of repayment notifications past due date.
- **Collaterals in Default** - Click this link to display the report of collateral records in default.



- **Limit Report** - Click this link to display the report of limits records in Loan Management. The report displays different sections for expired limits, limits with available amount lower than 0, limits about to expire and limits to be reviewed, the latest two with the option to select the desired interval of dates. The reports are run automatically with a default value defined in the [DefaultIntervalLimitsReport](#) Loan Management system parameter, but you can change the intervals according to your needs directly from the report.





- **Future Installments** - Click this link to display the list of installments that are due in the following X number of days from the current date. X represents a default value taken from the DaysFutureInstallmentsReport [Loan Management system parameter](#). You can generate the report for a different number of days simply by changing the value of the **Future days** field within the **Future Installments Report** page. The report displays the following information about the future installments: customer name, contract number, currency, due date, installment value, installment number, maturity date, interest, principal, outstanding value, total penalty value and total penalty unpaid.

FUTURE INSTALLMENTS REPORT

Future days

17

Refresh

Export

Customer Name	Contract...	Currency	Due Date	Installment Value	Installm...	Maturity Date	Interest	Principal	Outstanding Value	Total Penalty Value	Total Penalty Unpaid
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
BU2	2548	Euro	05/11/2021	41.10	2.00	05/11/2021	1.43	39.67	436.33	0.11	0.00
BU2	2502	Euro	05/11/2021	131.87	2.00	05/11/2021	5.45	116.42	1,307.68	1.01	0.00
BU2	2513	Euro	05/11/2021	213.09	2.00	05/11/2021	9.08	194.01	2,179.17	1.81	0.00
TestPj	2284	Euro	05/11/2021	1,531.53	2.00	05/11/2021	31.31	1,490.22	7,513.47	45.93	0.00
BU6	2671	Euro	05/11/2021	133.43	2.00	05/11/2021	4.43	129.00	1,347.00	1.68	0.00

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- Past Due Installments** - Click this link to display the list of installments that were due but not have been fully paid, no matter their origin - normal installments, penalties, transaction fees, etc, - in the last Y number of days from the current date. Y represents a default value taken from the DaysPastDueInstallmentsReport [Loan Management system parameter](#). You can generate the report for a different number of days simply by changing the value of the **Past due days** field within the **Past Due Installments Report** page. The report displays the following information about the past due installments: customer name, contract number, currency, installment total value, due date, unpaid amount, maturity date, interest, principal, outstanding value, total penalty value and total penalty unpaid.

PAST DUE INSTALLMENTS REPORT												
Past due days		30										
Refresh		Export										
Customer Name	Contract Number	Currency	Installment Value	Due Date	Unpaid Amount	Maturity Date	Interest	Principal	Outstanding Value	Total Penalty Val...	Total Penalty Un...	
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
BU2	2545	Euro	200.00	13/09/2021	59.08	13/09/2021	0.00	200.00	1,677.00	0.38	0.00	
BU4	2552	Euro	201.00	13/09/2021	260.04	13/09/2021	0.00	201.00	1,677.00	7.83	7.67	
BU4	2558	Euro	201.00	13/09/2021	260.04	13/09/2021	0.00	201.00	1,677.00	7.83	7.67	
BU2	2550	Euro	201.00	13/09/2021	59.04	13/09/2021	0.00	201.00	1,677.00	0.42	0.00	
BU2	2548	Euro	201.00	13/09/2021	59.04	13/09/2021	0.00	201.00	1,677.00	0.11	0.00	
BU2	2546	Euro	201.00	13/09/2021	59.04	13/09/2021	0.00	201.00	1,677.00	0.38	0.00	
C1369	2571	Romanian leu	700.00	13/09/2021	710.90	16/09/2021	0.00	700.00	2,800.00	74.96	74.96	

- Closure of Contracts** - Click this link to display the list of contracts that are ready to be closed because they meet the following conditions: the contracts are in Approved status, their maturity date < the current system date, their loan balance = 0, and the remaining amount for all their notifications = 0. The report displays the following information about the contracts that can be closed: contract number, customer

name, product, currency, amount, balance off date, closure date, and maturity date.

CLOSURE OF CONTRACTS								
Refresh		Export						
ContractNo	Customer	Product	Currency	Amount	Balance Off Date	Closure Date	Maturity Date	
Q	Q	Q	Q	Q	Q	Q	Q	Q
7961		Regression Term Loan E..	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022	
7956		Regression Term Loan E..	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022	
7941		Regression Term Loan E..	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022	
7934		Regression Term Loan E..	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022	
7918		Regression Term Loan E..	EUR	10,000.00	23/06/2022	23/06/2022	23/06/2022	

You can also use the `GetClosureOfContracts` endpoint to fetch the same information within your own API integration.

The lists can be filtered on every column. Access records from the lists by double-clicking them.

The charts can be downloaded by clicking the Chart context menu in the top right corner of each chart and selecting the desired format: PNG or JPEG image, PDF document or SVG vector image.

The reports can be accessed by users with the following [predefined security roles](#), but note that some actions may be limited according to the role setup:

- Loan Admin Officer
- Supervisor Corporate Officer
- Corporate Credit Officer
- Supervisor Risk Officer
- Risk Officer.

The **Future Installments** and the **Past Due Installments** reports can also be accessed by users with Supervisor Retail Officer and Retail Credit Officer roles.

## Records To Be Purged

The **Records To Be Purged** dashboard displays the records in Draft status that are due be purged on the current day and have their [transaction type's To Be Purged](#) field marked as True.

**NOTE**

In order to be purged on the current day, the record's **Created On** date + the value of the **Purge Number of Days** parameter at transaction type level must be equal with the current date. If the **Purge Number of Days** parameter at transaction type is 0, then the value of the [DaysBeforePurge](#) system parameter is considered instead.

The job performing the deletion is **Delete Purged Entries** and it should be scheduled at the bank's level. The lists can be filtered on every column. You can select to display only the records created on a specific day from the calendar button next to the **Created On** column.

The following tabs are available to display the records to be purged, based on their [transaction type](#):

- Disbursements - displays all the disbursement type transactions in Draft status which are due to be purged on the current system date;
- Early Repayment - displays all the early repayments type transactions in Draft status which are due to be purged on the current system date;
- Top-Ups - displays all the top-up account type transactions in Draft status which are due to be purged on the current system date;
- Early Termination Deposit - displays all the early termination deposits type transactions in Draft status which are due to be purged on the current system date;
- Loan Contract - displays all the contracts in Draft status created based on Term Loan banking products which are due to be purged on the current system date;
- Payment Holidays - displays all the payment holidays type transactions in Draft status which are due to be purged on the current system date;

- Reschedule Overdues - displays all the reschedule overdues type transactions in Draft status which are due to be purged on the current system date;
- Withdraws - displays all the withdraw type transactions in Draft status which are due to be purged on the current system date;
- Transfers - displays all the transfer type transactions in Draft status which are due to be purged on the current system date.
- Return Fees - displays all the Returned Amount of Goods type transactions in Draft status which are due to be purged on the current system date.
- Agreements - displays all the Agreement type transactions in Draft status which are due to be purged on the current system date.

### NOTE

For each transaction type that can be purged (marked with **Yes** in the [Predefined Transaction Types](#) table's **Can Be Purged** column), Loan Management displays a tab in the **Records To Be Purged** dashboard only if their **To Be Purged** field is marked as True.

For each record, the following information is displayed: name, business status, creation date and transaction type.

The example below shows the **Loan Contract** tab, which displays all the contracts in Draft status created based on Term Loan banking products and which are due to be purged on the current system date.

RECORDS TO BE PURGED		
Disbursements	Early Repayments	Top Ups
Early Termination Deposits	<b>Loan Contract</b>	Payment Holidays
	Reschedule Overdues	Withdraws
		Transfers
<div>Refresh</div>		
Name	Business Status	Created On
3408	ContractDraft	19/10/2021 14:52
3410	ContractDraft	19/10/2021 17:14
3413	ContractDraft	19/10/2021 17:35
3407	ContractDraft	19/10/2021 14:38

This dashboard can be accessed by users with the **Loan Admin Officer** predefined security role.

## DLQ Messages

The **DLQ Messages** (the dead letter queue) dashboard lists messages about the requests that the **Async Engine** could not process for any reason. Each message contains the queue name, the flow name, the error message, the payload and the time stamp of the unprocessed request. The lists can be filtered on every column.

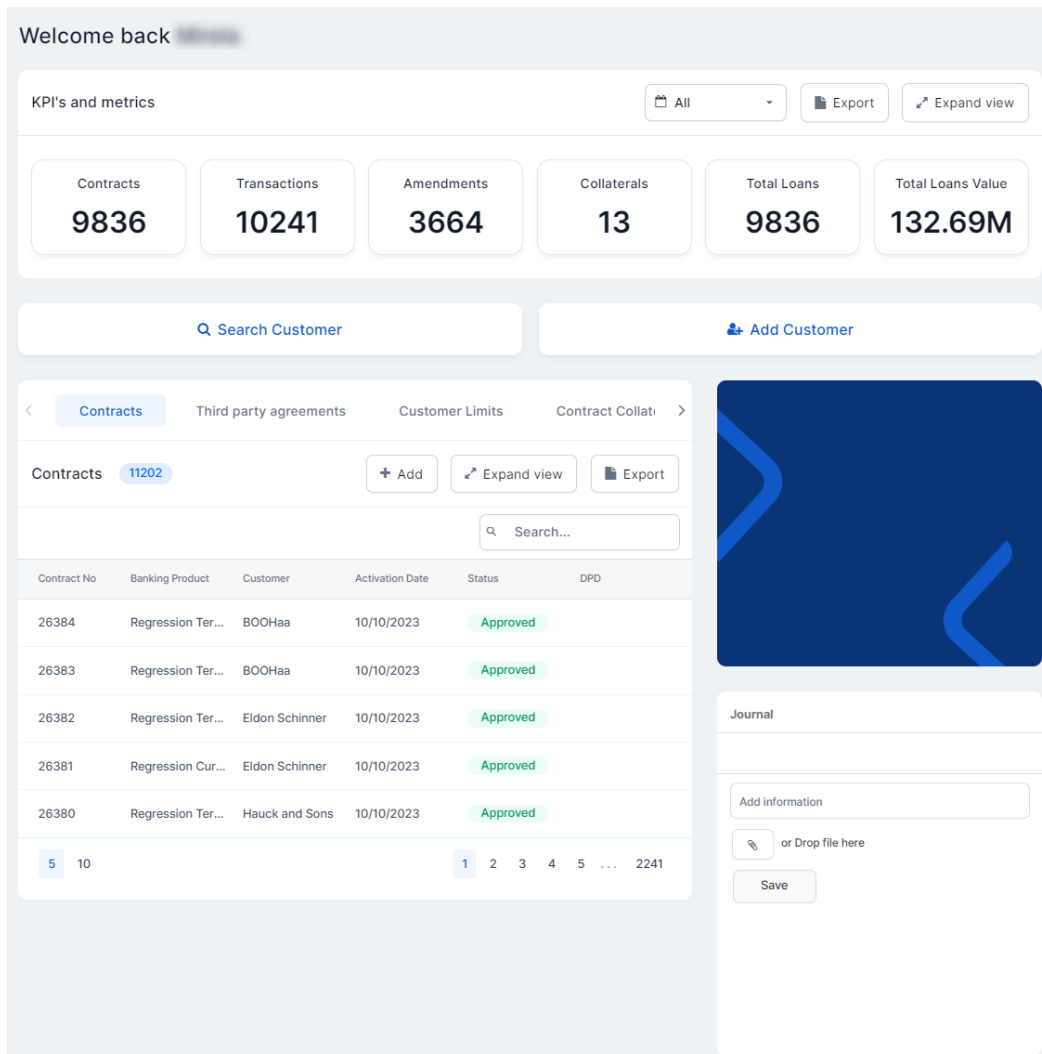
The **Reprocess** button next to each message allows you to send them for reprocessing.

<a href="#">APPS</a> <a href="#">CONTRACTS</a> <a href="#">CREDIT FACILITY DASHBOARD</a> <a href="#">CUSTOMER LIMITS</a> <a href="#">LOAN ADMIN OFFICER DASHBOARD</a> <a href="#">RECORDS TO BE PURGED</a> <a href="#">REPORTS</a> <a href="#">DLQ MESSAGES</a>						
<div> <div>Refresh</div> <div>Export</div> </div>						
Queue Name	Flow Name	Error	Payload	Timestamp	Reprocess	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"57245c57-979a-...	21/07/2023 09:25	<button>Reprocess</button>	
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"6d3c5f22-acc4-4...	21/07/2023 09:25	<button>Reprocess</button>	
ftos-tpm-find-agreements	Flow_TPM_GenerateInvoiceDetails...	("message":"PNZ/r/n[development...	("correlationId":"cf8fc935-144a-4...	21/07/2023 09:26	<button>Reprocess</button>	
ftos-tpm-pay-invoice	Flow_TPM_PayInvoices_AsyncEngl...	("message":"Source Bank Account...	("correlationId":"53167c93-82a8-...	21/07/2023 09:29	<button>Reprocess</button>	

This dashboard can be accessed by users with the **Async Engine Admin security role**.

## Back-Office Dashboard

The **Back-Office Dashboard** aims to be the main overview page for users with the associated role of **Loan Admin Officer** in their day-to-day tasks. It displays the most important information on one page, showing indicators and metrics, overview information about contracts, third-party agreements, customer limits, collateral evaluations, credit facilities and usages, and transactions. It enables users to access record search, creation, or viewing without having to navigate to the corresponding menu items, as well as to add notes or files related to their work.

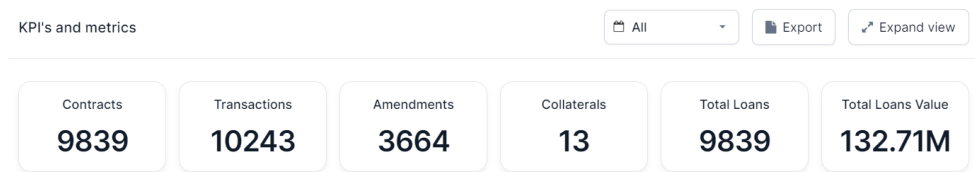


The operations available for each user depend on their role and permissions, but users associated with the out-of-the box Loan Admin Officer security role can perform all the actions available on the dashboard.

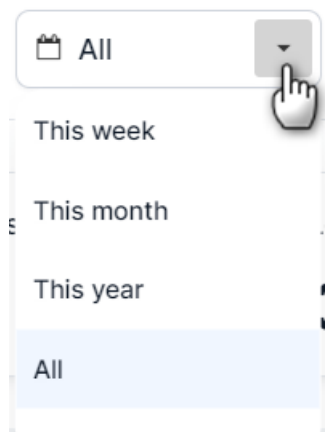
The lists can be filtered on every column. Access records from the lists by double-clicking them. View detailed information clicking the **Expand View** buttons located in specific sections. Click the **Export** button to export the information within the section to .csv files for further analysis.

The dashboard contains the following sections dedicated to different processes:

- **KPI's and metrics** - The section displays the total number of contracts, transactions, amendments (contract versions), collaterals, loans, and cumulative loan value (in millions, in the currency defined in the [FTOS\\_CB\\_DashboardCurrency](#) parameter) in the system for the selected time period.

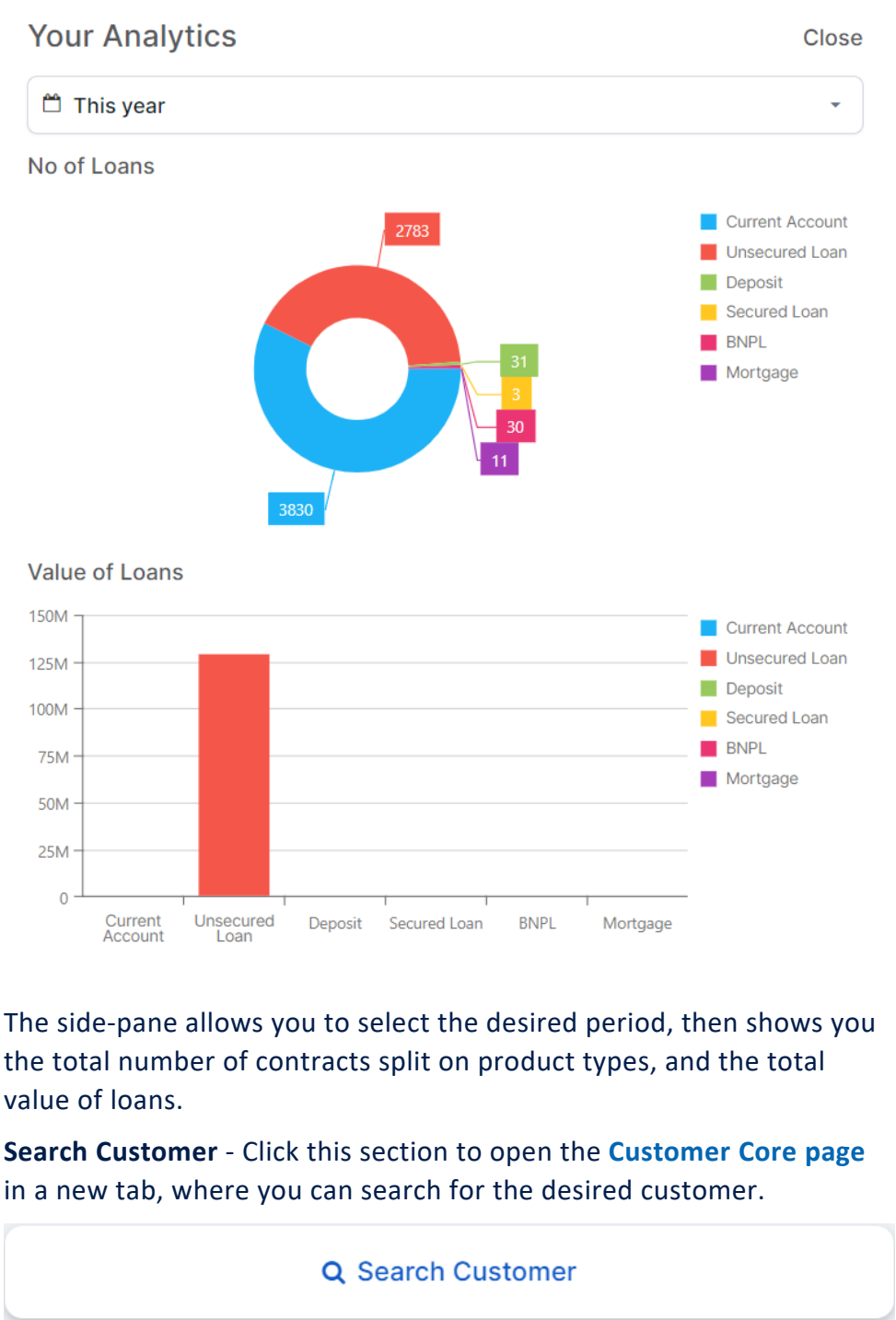


Select from the drop-down within the section the desired period for displaying the KPIs and metrics information:

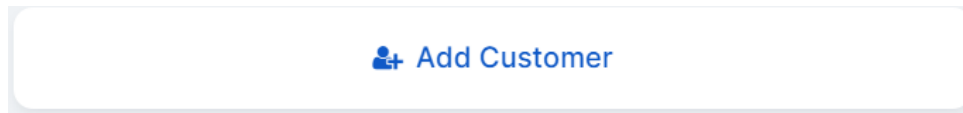


Click **Expand View** to display more information in a slideable side-pane:





- **Add Customer** - click this section to open the **Add Customer** page in a new tab, where you can create new customer records.



- **Contracts** - It displays the total number of contracts in the system, as well as a list of contracts with information about each contract's number, banking product, activation, status, and days past due. You can also **create new contracts** by clicking the **Add** button, or search for existing contracts by filling in any of the contract's information in the **Search** box.

<

Contracts

Third party agreements

Customer Limits

Contract Collat

>

Contracts

11212

+ Add

Expand view

Export

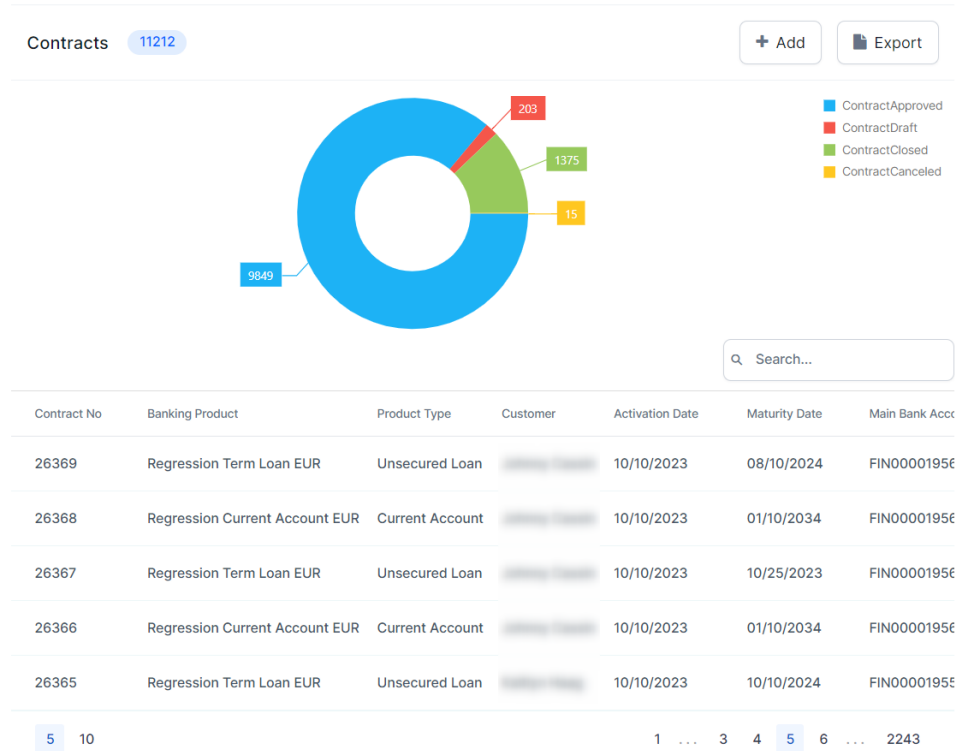
Search...

Contract No	Banking Product	Customer	Activation Date	Status	DPD
26390	Regression Ter...		10/11/2023	Draft	
26389	Regression Ter...		10/11/2023	Draft	
26388	Regression Ter...		10/10/2023	Approved	1
26387	Regression Ter...		10/10/2023	Approved	0
26386	Regression Cur...		10/10/2023	Approved	

510

12345...2243

Click **Expand View** to view display more information in a slideable side-pane:



The side-pane displays a pie-chart that specifies the number of contracts in each status: Contract Draft, Contract Closed, Contract Approved, and Contract Canceled. Click any of the statuses to filter them out.

The pane also displays the list of contracts in the selected statuses, with information about each contract's number, banking product and type, customer, activation and maturity dates, main bank account, balance, status, days past due, and category.

- **Third Party Agreements** - This section is displayed if the [UseTPMLoan](#) Management system parameter is set to True. It displays the total number of [agreements](#) in the system, as well as a list of agreements with information about each agreements's number, validity period, customer, their role, and record status. You can also [create new agreements](#) by clicking the **Add** button, or search for existing contracts by filling in any of the agreement's information in the **Search** box.

<

Contracts

Third party agreements

Customer Limits

Contract Collat

>

Third party agreements

358

+ Add

Expand view

Export

Search...

Name	Valid From	Valid To	Customer	Status	Role
AG000000...	06/23/2023	06/23/2025	[REDACTED]	Approved	Broker
AG000000...	06/23/2023	06/23/2025	[REDACTED]	Approved	Broker
AG000000...	06/23/2023	06/23/2025	[REDACTED]	Approved	Broker
AG000000...	06/22/2023	06/22/2024	[REDACTED]	Approved	Merchant
AG000000...	06/22/2023	06/22/2024	[REDACTED]	Approved	Merchant

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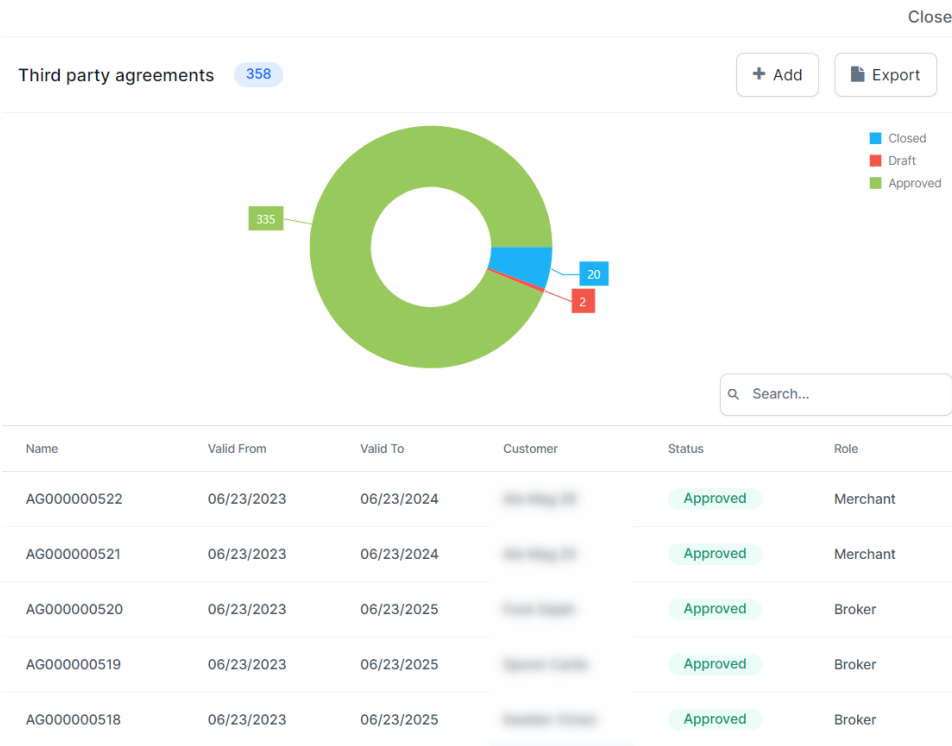
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72

Click **Expand View** to view display more information in a slideable side-pane:



The side-pane displays a pie-chart that specifies the number of agreement in each status: Draft, Closed, and Approved. Click any of the statuses to filter them out.

The pane also displays the list of agreements in the selected statuses, with information about each agreement's number, validity period, customer, their role, and record status.

- **Customer Limits** - It displays the total number of limits in the system, as well as a list of limits with information about each limit's customer, type, status, amount, available amount, and currency. You can also [create new limits](#) by clicking the **Add** button, or search for existing limits by filling in any of the limit's information in the **Search** box.

<

Contracts

Third party agreements

Customer Limits

Contract Collat

>

Customer Limits

7698

+ Add

Expand view

Export

Search...

Customer	Limit Type	Business Status	Limit Amount	Available Limit Am...	Currency
...	Country Expos...	Approved	30000	12400	EUR
...	Company Expo...	Approved	30000	21200	EUR
...	Total Exposure	Approved	30000	12400	EUR
...	Product Expos...	Approved	30000	15400	EUR
...	Product Type E...	Approved	30000	15400	EUR

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1540

Click **Expand View** to view display more information in a slideable side-pane:

Close

Customer Limits

7698

+ Add

Export

Search...

Customer	Limit Type	Business Status	Limit Amount	Available Limit Amount	Currency	Expire Date
...	Total Exposure	Approved	100000	100000	EUR	07/12/2033
...	Total Exposure	Approved	20000000	20000000	EUR	07/11/2035
...	Total Exposure	Approved	1000000	991200	EUR	01/10/2034
...	Total Exposure	Approved	20000	10000	EUR	01/10/2034
...	Exchange Exposure	Approved	30000	12400	EUR	01/10/2034

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The pane displays the list of limits, with information about each limit's customer, type, status, amount and available amount, currency, expire date, whether it is a secured limit, its underlying banking product and type, and its review date.

- **Contract Collateral** - It displays a list of the [collaterals](#) used in contracts, with information about each collateral's customer, status, type, registered value, cover percent and value in the contract's currency, and the contract number. You can also search for existing collaterals by filling in any of the collateral's information in the **Search** box.

<

Contracts

Third party agreements

Customer Limits

Contract Collateral

>

Contract Collateral

15

Expand view

Export

Search...

Customer	Status	Collateral Ty...	Currency	Registered ...	Cover Percent	Cover Value ...	Contract
RC3 n	Secured	Residentia...	EUR	900000	100	900000	
Jane D...	Secured	Cash	EUR	14000	100	14000	
Jane D...	Secured	Cash	EUR	1000	100	1000	
Berry ...	Secured	Cash	EUR	200	100	200	
Berry ...	Secured	Cash	EUR	9800	100	9800	

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Click **Expand View** to view display more information in a slideable side-pane:

Close

Contract Collateral <span>15</span>						Export
<input type="text" value="Search..."/>						
Status	Collateral Type	Currency	Registered Value	Cover Percent	Cover Value In Contract Currency	Contract
Released	Cash	EUR	0	0	0	
Active	Cash	USD	1100	100	979	
Secured	Cash	USD	10000	100	8900	
Active	Residential Real Estate	EUR	35000	100	35000	
Active	Others	EUR	15000	100	15000	
5	10				1	2 3

The pane displays the list of the collaterals used in contracts, with information about each collateral's customer, status, type, registered value, cover percent and value in the contract's currency, and the contract number.

- **Credit Facility** - This section is displayed if the [UseCF](#)Loan Management system parameter is set to True. It displays the number of the credit facility records created in the system, as well as a list with information about each credit facility's name, customer, facility amount and currency, usage percentage, and status. You can also [create new credit facilities](#) by clicking the **Add** button, or search for existing ones by filling in any of the facility's information in the **Search** box.



<

Contract Collateral

Credit Facility

Credit Facility Usage

Transactions

>

Credit Facility

13

+ Add

Expand view

Export

Search...

Name	Customer	Facility Amount	Available Amo...	Currency	Usage Percent...	Status
CF0000...		1000000	1000000	EUR	0	Draft
CF0000...		150000	150000	EUR	0	Approved
CF0000...		200000	200000	EUR	0	Draft
CF0000...		120000	108000	EUR	0	Approved
CF0000...		100000	75000	EUR	0	Approved

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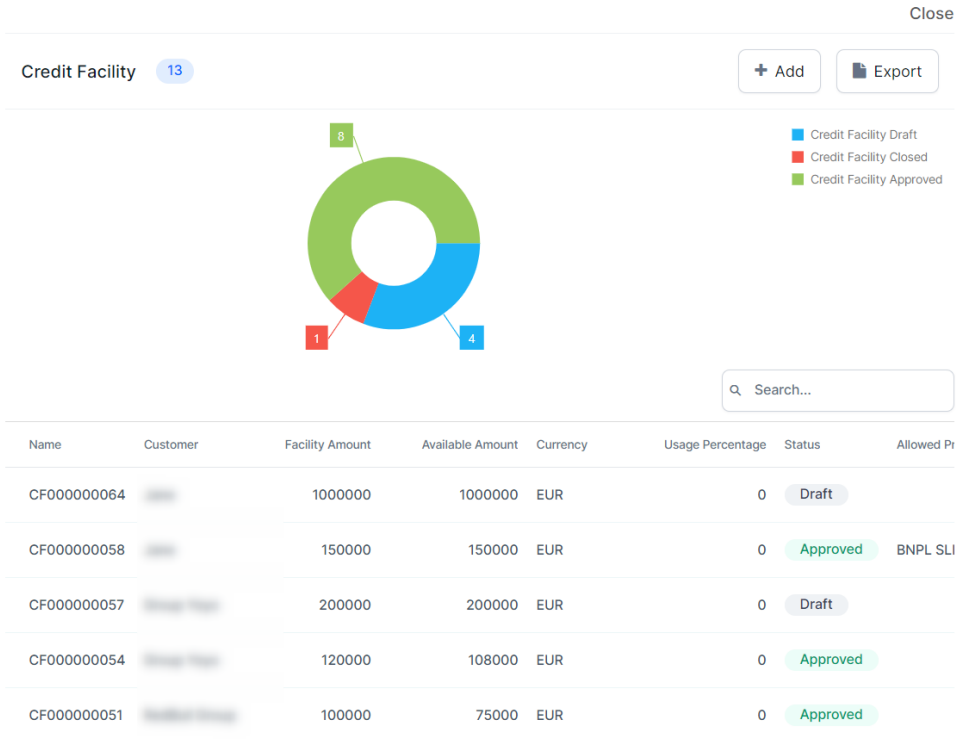
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Click **Expand View** to view display more information in a slideable side-pane:



The side-pane displays a pie-chart that specifies the number of credit facilities in each status: Credit Facility Draft, Credit Facility Closed, and Credit Facility Approved. Click any of the statuses to filter them out.

The pane also displays the list of credit facilities, with information about each record's name, customer, facility amount and currency, usage percentage, status, allowed products, and allowed customers.

- **Credit Facility Usage** - This section is displayed if the UseCFLoan Management system parameter is set to True. It displays the number of the credit facility usage records created in the system, as well as a list with information about each record's name, contract id and number, utilization amount, credit facility number, currency, and customer. You can also search for existing records by filling in any of the facility usage's information in the Search box.

<

Contract Collateral

Credit Facility

Credit Facility Usage

Transactions

>

Credit Facility Usage

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Expand view

Export

Search...

Name	Contract Id	Utilisation Amo...	Credit Facility	Currency	Customer	Contract
CF Detail...	964c80fb-6...	10000	CF0000000...	EUR		
CF Detail...	d3dbb9a1-e...	10000	CF0000000...	EUR		
CF Detail...	473f9629-c...	10000	CF0000000...	EUR		
CF Detail...	e643ea96-f...	30000	CF0000000...	EUR		6088
CF Detail...	7ff41290-39...	100	CF0000000...	EUR		

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Click **Expand View** to view display more information in a slideable side-pane:

Close

Credit Facility Usage

10

Export

Search...

Name	Contract Id	Utilisation Amount	Credit Facility	Currency	Customer
CF Details 0000118	964c80fb-6aae-496c-b07f-188947b9903f	10000	CF0000000038	EUR	
CF Details 0000119	d3dbb9a1-ee6e-4545-ba99-0088e9cb9e21	10000	CF0000000038	EUR	
CF Details 0000120	473f9629-c231-42b8-8254-92fddbaba330	10000	CF0000000040	EUR	
CF Details 0000122	e643ea96-f083-4504-baac-5968fc6d2575	30000	CF0000000048	EUR	
CF Details 0000124	7ff41290-3937-41fc-89ba-818d48899cee	100	CF0000000051	EUR	

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The pane displays the list of credit facility usage records, with information about each record's name, contract id and number, utilization amount, credit facility number, currency, and customer.

- **Transactions** - This section displays the number of the [transaction](#) records created in the system, as well as a list with information about each record's number, transaction type, contract number, value and currency, event date, and the user who created the transaction. You can also search for existing records by filling in any of the transaction's information in the **Search** box.

<

Contract Collateral

Credit Facility

Credit Facility Usage

Transactions

>

Transactions

10339

Expand view

Export

Search...

Transactio...	Transaction Ty...	Contract No	Value	Currency	Event Date	User
ECB20641	Disbursement	26521	10000	EUR	10/13/2023	
ECB20639	Disbursement	26518	50000	EUR	10/13/2023	
ECB20638	Disbursement	26515	5000	EUR	10/13/2023	
ECB20637	Disbursement	26503	5000	EUR	10/13/2023	
ECB20636	Disbursement	26513	10000	EUR	10/13/2023	

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Click **Expand View** to view display more information in a slideable side-pane:

Close

Transactions 10339

Export

Q Search...

Transaction No	Transaction Type	Contract No	Value	Currency	Event Date	User
ECB20641	Disbursement	26521	10000	EUR	10/13/2023	
ECB20639	Disbursement	26518	50000	EUR	10/13/2023	
ECB20638	Disbursement	26515	5000	EUR	10/13/2023	
ECB20637	Disbursement	26503	5000	EUR	10/13/2023	
ECB20636	Disbursement	26513	10000	EUR	10/13/2023	

5 10

1 2 3 4 5 ... 2068

The pane displays the list of transactions, with information about each record's number, transaction type, contract number, value and currency, event date, and the user who created the transaction.

- **Important Notices** - The information displayed here is dependent on the Loan Management implementation. If the functionality was implemented, the section displays important notifications. This is where the financial institutions can set reminders to their employees.



- **Journal** - This section allows you to add notes and/ or files related to your work. Simply type your notes in the **Add information** box, attach a file if relevant, click **Save**, and the system stores the data with the time stamp for future references.


Journal


Tue Oct 10 2023 14:44:23 GMT

commented:

My notes about this topic

attached this document


[22R3.png](#)



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