Average Principal Balance Interest Method

This document will guide you through the process of setting up a Line of Credit loan in LOAN SERVICING SOFT with interest calculated using the Average Principal Balance method.

For additional information and/or questions please feel free to contact our support group at support@loanservicingsoft.com or 1-800-993-1839 x804.

Prerequisites

Required minimum database version: 63.9.0
Required minimum LSS client version: 2.8.606.2817

This method was properly tested only for monthly LOC loans which are due every 1st of the month. If the payment due date falls on different date the interest calculation may not be accurate.

Loan Setup

In order to properly calculate the interest based on the Average Principal Balance a LOC loan must have the terms set in a certain way.
Here are the steps you need to follow:
- Loan Type: Line of Credit Loan
- Interest Method: Actual Days: Average Principal Balance
- Amortized: Interest Only
- Term Period: Monthly
- Payment Period: Monthly
- Negative Amortization: Add To Unpaid Interest
- Calculate daily Rate based on: 365 days in year
- Calculate days in date range based on: Actual Days

The loan has to be funded and the Credit Limit must be set.
Then loan draws can be added by pressing the “LOC / Revolving Details” button. Once the setup is complete loan status must be set to ‘Active’ in order to be able to post borrower payments.
Here is how the terms are set for this calculation method to properly work:

![Image of the calculation method interface]

Here are a few draws made for this loan:
Sample Transactions

1. First regular payment is due on 2/1/2017 and is affected by two of the draws added to the loan on 1/1/2017 with amount of $100,000 and 1/13/2017 with amount of $50,000.

Here is how the interest is calculated for this first payment:

What is specific for this type of calculation is the daily rate used to calculate the interest which is different for each month depending on the actual number of days in the period (month).

For this first payment the daily rate is calculate like this:
Average Principal Balance Interest Method

Daily Rate = \[\text{Yearly Interest Rate} / ([\text{Months in year}] \times [\text{Days in current month}])\]
Daily Rate = \(24\% / (12 \times 31) = 0.064516129032200\%\)

2. Second regular payment is due on 3/1/2017.
Here is how the interest is calculated for this payment:

![Interest Calculation Audit](image)

This second payment is not affected by other draws.
There are only 28 actual days in the month and the daily rate used is calculated using this formula:

Daily Rate = \(24\% / (12 \times 28) = 0.071428571428500\%\)

3. On 03/17/2017 a $55,000 principal pay-down is made. It is posted as an irregular payment and the entire amount received is distributed to unbilled principal bucket.

4. On 4/1/2017 another regular payment is posted and the interest calculation in this case is affected by the principal pre-payment made on 3/17/2017.
Here is how the interest is calculated for this payment:

![Interest Calculation Audit](image)

For this payment the daily rate is calculate like this:
Daily Rate = 24% / (12 * 31) = 0.064516129032200%

5. Final sample payment is posted on 5/1/2017 and the interest is calculated like this:

For this payment the daily rate is calculated like this:
Daily Rate = 24% / (12 * 30) = 0.06666666666600%