

LOAN SERVICING SOFT Understanding Interest Methods & Calculations

This document will guide you through the different interest methods supported by LOAN SERVICING SOFT and how they work.

For additional information and/or questions please feel free to contact our support group at support@loanservicingsoft.com or 1-800-993-1839 x2.

Supported Interest Methods

- Regular Periodic
- Actual Days: Days in Period
- Actual Days: Payment to Payment
- Canadian Amortization
- Add on Interest or Pre-Computed (Rule 78) ***
- Regular Periodic Compounding ***
- Actual Days: Average Principal Balance ***
- Rent ***
- Lease ***

For the Interest methods marked with *** please contact our support group.

Regular Periodic – As the name implies all payments are regular. The allocation of principal and interest is not effected by the payment date. Interest is charged in arrears based on the principal balance on the first day of the monthly term period.

For example, for a monthly periodic loan, interest for a full period is calculated like this:

$$\text{Monthly Interest} = [\text{Principal Balance}_{\text{as of period start}}] \times \text{Yearly Rate} / 12$$

If you want a principal pay down to take effect immediately it must be entered in as a separate irregular payment.

Actual Days: Days in Period – When using this type of method, the loan calculates interest based on the number of days in the period. The interest is calculated from previous interest paid to date up to next due date of the loan, not the day the payment comes in. Interest is charged in arrears.

For example, for a monthly Actual Days: Days in Period loan, interest for month of July is calculated like this:

$$\text{July Interest} = 31 \text{ days in month} \times [\text{Principal Balance as of period start}] \times \text{Yearly Rate} / 365 \text{ days in year}$$

The 31 days in month is the actual days in the calculated period. In this case July has 31 days. If the field “Calculate days in date range based on” is set to “30 Days Month” then the calculation will change to

$$\text{July Interest} = 30 \text{ days in month} \times [\text{Principal Balance as of period start}] \times \text{Yearly Rate} / 365 \text{ days in year}$$

Number of days in year used in the above formula is controlled by field “**Calculate daily rate based on**” and most frequent can be set to 360 or 365 days in year.

If a principal pay down occurs it is taken into account on that day, when interest is calculated in arrears the following month or term period. In other words when the system goes to calculate interest in arrears for the month it doesn’t just use the principal balance as of the first day of the term period, but instead splits the month or term period into different sections with different principal balances. This works for both principal and interest pay downs and midterm draws for line of credit loans.

Actual Days: Payment to Payment – Also known as Payment to Payment Simple Interest. With a 365 day calendar the system calculates interest for the term period, in arrears, from payment to payment date. If a principal pay down occurs it is taken into account on that day, when interest is calculated in arrears the following month or term period. In other words when the system goes to calculate interest in arrears the following month, it doesn’t just use the principal balance as of the first day of the term period, but instead splits the month or term period into different sections with different principal balances. This works for both principal and interest pay downs and midterm draws for line of credit loans.

Canadian Amortization – This interest method is very similar to Regular Periodic. The allocation of principal and interest is not effected by the payment date. Interest is charged in arrears based on the principal balance on the first day of the monthly term period. The only difference is that the year is broken into two six month periods.

Contact our support group for formula and more details

If you want a principal pay down to take effect immediately it must be entered in as a separate irregular payment.

Add on Interest or Pre-Computed (Rule 78), Regular Periodic Compounding, Actual Days: Average Principal Balance, Rent, and Lease – Please contact our support group for these other less frequently used interest methods.

Hybrids– Please also contact our support group for Hybrid models like **Actual 360**, where we take **Actual Days: Days in Period** and use a 30 day month/360 day year instead of 365 days.