



Loan Payment Recalculation

Application Name: PS_LOANPMTRECALC
Application Description: Loan Payment Recalculation
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Overview:

This application provides the flexibility for loan accounts to have the contractual payment amounts recalculated either on advance, on rate change, on advance and/or rate change, or on demand. The calculations can vary by product and payment amounts can be calculated using percentages, varying terms, and multiple types of tiered processes. Additionally, minimum payment amounts may also fluctuate. This application supports the use of an alternate payment amount and also considers Non-Financed Debit Protection Premiums (SINS) included in the calculated total monthly payment.

Key Benefits:

This application enables financial institutions to configure payment recalculations using a variety of methods for simple interest loans based on product/account settings.

Processing:

This application offers a variety of methods to recalculate loan payment amounts where the payment type is Note Due (FDUE) or Fixed Principal and Interest (FBI) and the interest method is not amortizing. This application inactivates the existing payment amount and insert a new payment amount. This process supports recalculation payments based on:

- Advance Activity:

Advance transactions are determined using an RTXN reporting group entitled “Custom Payment Recalculation” allow flexibility in defining what transactions causes a payment recalculation to occur. The parameters allow a financial institution the flexibility to specify a period of time for advance activity or to run the program daily to recalculate based on advance activity. Financial Institutions are to be aware that running this program daily for advance activity could result in an account having the payment amount recalculated multiple times on an account multiple times within a month. Special attention is paid by the Financial Institution to the billing receivable lead days.

- Rate Change Activity:

This method identifies accounts that have had a rate change and recalculates the payment amount. Accounts are selected based on rate activity between the start and thru date parameters. Accounts is to be set up in DNA[®] to NOT recalculate payment on rate changes so DNA processing doesn't affect the accounts if using this program to recalculate payments.

- Always:

This method allows a Financial Institution to run this program as often as possible and recalculate all accounts, regardless of transaction and/or rate activity.

NOTE: If an account is selected for a payment recalculation based on the combination of product variables and parameters and there is no current payment for the account, an FDUE payment (Fixed Due Calc Int on Pmt) are calculated and inserted if the Note Due balance type is on the product. If the Note Due balance is not on the product and an account has no active payment row, the accounts are listed as an exception for manual processing.

Rounding Calculations:

Below is an example of the calculations that could result on the same account based on the different variables values allowed for Round Principal Balance and a Payment Rounding Method = 1 - Do Not Round.

Example: Loan balance is \$ 10,312.00

Percent of Balance: 3.00%

Round Method 1 – Payment would be 309.40

Round Method 2 – Payment would be 309.00

Round Method 3 – Payment would be 310.00

Additional rounding options are available by using the User-Defined Pmt Rounding Meth variable to enter a custom rounding method code. It is important to note that the financial institution needs to be aware that the rounding methods creates in the RNDMETH table are included in the other function drop downs that utilize the RNDMETH table such as rates, standard payment recalculations and escrow payment recalculations. When creating the rounding methods, Financial Institution uses a unique naming convention that would identify the rounding method for use in loan payment rounding only.

Receivable Generation Method:

If an account with a receivable generation method of On Cycle is using a payment recalculation method that relies on a term in the calculation, all On Cycle receivable calculations assumes a payment frequency of monthly. A payment type of Note Due (FDUE) is supported with On Cycle receivable generation in this application; a Fixed Principal and Interest (FBI) payment type is NOT supported with On Cycle receivable generation in this program.

Rate Changes:

The Start and Thru Date Parameters are used to look for account level rate change information within the period that forces a payment recalculation. If an account has had a rate change for the period entered in the parameters and the 'Reason to Recalc Payment' variable is set to either 'Rate Change' or 'Advance and Rate Change', the payment amount is recalculated.

The Include Interest Rate Reviews parameter is used to determine if the payment is changed if the interest rate was reviewed but didn't actually change.

Fixed Balance Processing:

In order for this program to calculate the loan payment amounts for Fixed Balance loans, it is strongly recommended that the Payment Calculation Method product-level variable be set to Level Principal Payment. The calculation is for the principal portion of the payment only and requires a corresponding Variable Calculated Interest payment row on any account with a Fixed Balance principal payment row in order for the system to bill and collect interest in the payments.

The amount of the Fixed Balance payment is recalculated by determining the remaining term of the loan and dividing it into the principal balance minus the outstanding principal balance due. Remaining term is determined by first looking for an amortization term in the account interest history when the balloon indicator is set to Y, then if there is no value, looking at the account for either a value in Anticipated Payoff Date or Maturity Date. The remaining term is

calculated by comparing the system date to the maturity date or anticipated payoff date of the account. Any accounts that uses the remaining term method requires one of the above two dates for purpose of the calculation.

$$50,000.00 / 180 = \$277.78$$

$$49,722.22 / 179 = \$277.78$$

$$49,444.44 / 178 = \$277.78$$

This method is supported for both Calendar Period and On Cycle receivable generation method accounts. For On Cycle accounts, the payment frequency in all calculations is always assume Monthly.

Biweekly Payment Calculations:

For biweekly accounts, the calculation uses the calculation variable Use Biwk Actual Pmt Calc when determining the new payment amount. When determining the amount of a biweekly payment based on the calculation variable Minimum Monthly Payment, the amount is calculated into a biweekly equivalent using the following:

Biwk Actual Variable	Calculation
BKAP = No	\$ Minimum Monthly Payment/2
BKAP = Yes	\$ Minimum Monthly Payment * 12/26

Ex: Minimum Monthly Payment \$ 15.00
 BKAP = No Minimum Monthly Payment = 7.50
 BKAP = Yes Minimum Monthly Payment = 6.92

If using any of the recalculation methods that require a calculation schedule, there is a schedule purpose entitled Recalculate Loan Payment that optionally can be used to distinguish the rate schedule.

Pre Authorized Transfers:

This process changes the amount of a scheduled preauthorized transfer to the loan account with a transaction type of Regular Payment, with support for a borrower elected alternate payment amount. Updating transfer amounts is controlled by two parameters and the value in the Update Scheduled Pre Authorized Transfers calculation variable. Scheduled pre-authorized transfers with a transaction type of Regular Payment is updated when the newly calculated payment amount is greater than the current payment amount. The Update Scheduled Pre Authorized Transfers variable controls whether transfer amounts are updated when the frequency of the transfer is different than the frequency of the loan payment.

These scenarios are supported:

1. Update varying allotment frequencies. If the new payment (calculated, borrower alternate or minimum) has a Payment Frequency Code of Monthly and the Allotment Payment Frequency has a different calendar period associated, the application looks at the External Cross reference tables to determine the factor to multiply the Monthly payment by in order to update the Pre-Authorized transaction. In the situation where the receivable generation method is On Cycle, a payment frequency of monthly is assumed when recalculating the transfer amount.

2. Update Same Frequency – Accounts where the frequencies do not match have the payment amount frequencies recalculated and the account is updated but the transfer record does not get affected. It is to be listed on the report as an exception.
3. In the situation where the receivable generation method is On Cycle, a payment frequency of Monthly is assumed when updating the transfer amount.
4. Exclude– this value allows a product or account to bypass preauthorized transfer processing when this application is run.

In the case where there is an alternate payment amount stored in a user defined field, the alternate payment amount is based on the frequency of the loan payment and the scheduled allotment. The newly calculated payment amount is compared to the existing amount of the user field value and if the payment amount in the user field is greater than the transfer amount, the transfer amount is not modified. In the case where there is an amount in the Alternate Payment user field and the newly calculated payment amount is greater than the value in the user field, the user field value is ignored and the higher payment amount is used to update the preauthorized transfer amount. In this scenario, a borrower who has elected for a higher transfer amount is not be adversely affected during the recalculation process but if the contractual payment increases higher than the alternate payment amount, the account does not result in only being partially paid and become delinquent.

Additional Payment Amount:

When the variable 'Add Accrual – Payment Difference' is not set to 1, a second user field is supported when calculating the new payment amount. The user field stores an ADDITIONAL amount to be adding to the calculated payment amount, not an alternate payment amount. This amount is added to the calculated amount with no calculations performed for various payment frequencies. If the value in the account level user field is \$ 50.00, \$ 50.00 is added to the payment.

No account is to have both an active Alternate Payment amount and an active Additional Payment Amount user field. When that condition occurs, an exception is provided on the report for review:

Acct # XXXX – Multiple User Field values exist, payment amount not updated

This process can utilize start and thru dates for a specific time period if the method is advance or it can be run nightly. Financial Institutions need to consider product level billing receivable lead day settings and varying account level due dates when determining run time frequency. It is recommended that this be placed in the end of the PreCycle batch template when run to make sure any transaction activity for the day has already occurred if recalculating on advance and any rate change activity has occurred if recalculating based on rate change activity.

For account where the variable 'Add Accrual – Payment Difference' is set to 1 the new payment is calculated the new payment amount is compared to the interest accrual. Interest accrual is calculated using the current per diem multiplied by 30. If the accrual amount is greater than the calculated payment the difference amount is placed in the 'Additional Payment' user field and the payment amount is set to the calculated accrual amount. If the accrued amount is equal to or less than the calculated payment the 'Additional Payment' user field is set to zero.

Example A accrual greater than calculated payment:

Accrued Interest = \$150

Calculated Payment = \$100

Difference = \$50

Additional Payment user field set to 50.00

Payment set to \$150

Example B accrual less than calculated payment:

Accrued Interest = \$90

Calculated Payment = \$100

Difference = -\$10 (amount is less than or equal to zero)

Additional Payment user field set to 0.00

Payment set to \$100

Changes to accounts are written to the DNA database using the Activity Type of Custom Payment Calculation (CPMT) in the Activity Category of Account Maintenance (AMNT).

Term Definition:

When using the variable for recalculate Specific Remaining Term and the account is reviewed due to an advance the application uses the Specific Term defined. When a rate change has occurred, and the variable Specific Remaining Term is used the application look at the date of last advance. The application then calculates the number of months since the last advance to the effective date of the rate change. The whole number of months since the last advance to the rate change gets subtracted from the Specific Term to determine the remaining term. The remaining term is used to recalculate the payment.

If there is no date of last advance and the principal balance is greater than zero, the application will use the contract date as the date of last advance.

Specific Remaining Term Example:

Advance - Specific Term value from variable.

Rate Change – An advance was processed in January and used the variable Specific Term value of 180. The rate changes in August and the hole number of months from the advance date to the rate change is 7. Specific Term (180) less the whole number of months to the rate change (7) equals a remaining term of 173 used for the payment recalculation.

When using the variable for recalculate Specific Remaining Term and the account is reviewed due to an advance the application will use the Specific Term defined. When a rate change has occurred, and the variable Specific Remaining Term is used the application will look at the date of last advance (as shown in the loan inquiry). The application will then calculate the number of months since the last advance to the effective date of the rate change. The whole number of months since the last advance to the rate change will be subtracted from the Specific Term to determine the remaining term. The remaining term is used to recalculate the payment.

When recalculating the payment due to a rate change and the defined user field is populated with a Date Last Advance the application will look to use this field as the Date Last Advance if needed. If the Date of Last Advance in DNA is blank or older than the value in the user field the application will use the value in the user field to determine remaining term. If the Date Last Advance in DNA is more recent than the user defined field value, the application will use the system date of last advance and ignore the user field value when calculating remaining term.

Non-Financed Debit Protection Premiums (SINS):

When the variable (8NCP- Include Non Cap. Pmt. Calc) indicates that the non-capitalized SINS is to be included in the new calculated payment amount, the application looks for any SINS transactions happened on the account after the last receivable generated for subaccounts with a Balance Type Code equal to 'SINS'. The application then sum the transaction amount of all these transactions and subtract it from the new calculated payment amount.

Example:

SINS Amount = \$12.50

Principal Balance = \$10,000

Initial Payment amount at 1% of balance = \$100.00

Final calculated payment amount \$87.50 (\$100.00 - \$12.50)

Total payment = \$100.00 (Note Due \$87.50 + SINS \$12.50)

Notice Generation:

The parameter Notice YN (NOYN) gives the financial institution the option to produce a notice when there is a payment recalculation. The Notice YN parameter is set as default to N- No.

The parameter Notice on Pmt Change Only YN (8NCO) defines if a notice is to be produced even if no change in payment amount. When set to Y – A notice is only produced if there is a change in the payment amount, when set to N – A notice is generated for all selected account. Notice on Pmt Change Only YN is set as default to Y-Yes. This parameter is only applicable if Notice YN (NOYN) parameter is set to Y.

Parameters:

The values required in the parameters depends on the payment calculation method being used. For example, if the payment recalculation is based on an advance, the "Start Date" and "Thru Date" parameters could be populated to define the range to look for advances.

All loan products need to have the payment recalculation variables selected in order for accounts to be processed with this program. The purpose of the additional parameters for loan product types is to allow the frequency to be different by loan product if desired and to allow for different preauthorized transaction processing if necessary.

Parameter	Code	Description	Required	Default
Include Interest Rate Reviews	8IRV	<p>This optional parameter will determine whether to recalculate the payment amount when the loan account has gone thru an interest rate re-pricing with no impact to the actual account interest rate.</p> <p>Y = Yes. When a new interest rate is identified for an account based on the effective date of the rate, even if the former rate was the same, the payment amount will be recalculated.</p> <p>N = No. The payment amount is only recalculated when the rate at the account level has changed during the period defined by the Start and Thru Date parameters.</p>	No	N
Addtl Pmt Amt User Field	8APA	<p>The User Field Code used to specify an Additional Payment amount to add to the recalculated payment amount.</p> <p>Note: If the account/product variable Add Accrual – Payment Difference (8APD) is being used, this parameter must be populated.</p> <p>If left blank, then Additional Amount will be considered as 0 for the calculation of new payment amount.</p>	No	<Blank>
RptOnly_YN	RPT	<p>N = No, produce a report and update the database.</p> <p>Y = Yes, produce a report only. Do not update the database.</p>	No	Y
StartDate	SD	Beginning Date to use when searching for advance transactions and rate change history.	No	Queue Effective Date
ThruDate	TD	End Date to use when searching for advance transactions and rate change history.	No	Queue Effective Date
Major Account Type Code	MJCD	A comma separated list of valid product major types.	No	CNS
Minor Account Type Code	MICD	<p>A comma separated list of valid product minor types.</p> <p>If left blank, then default value will be considered as all Minor products.</p>	No	<Blank>
Current Acct Status Code	CASC	A comma separated list of valid account statuses to process.	No	ACT,NPFM

Parameter	Code	Description	Required	Default
Update Active Allotments	8UAA	Y = Yes, the scheduled amount for active preauthorized transfer will be updated. N = No Update Scheduled Pre Authorized Transfers (8UPA) calculation variable is used with this parameter.	No	Y
User Field Code	8USF	The User Field Code used to specify an Alternate Payment at the account level. If left blank, then Alternate Payment Amount will not be specified.	No	<Blank>
Report Selection	8RPS	Dictates which report is printed. 1 = Original Report 2 = Expanded Report. Replaces the Changed Pmt YN and the Pre-Auth Updated YN data items with the following: Calc Schedule Term Used Alt Pmt Amount Addtl Pmt Amount Pre Auth Freq PreAuth Amount	No	1
Create Account Note	8CAN	Y = Yes, Add note to the account and inactivate previous notes N = No, do not add note to the account	No	Y
Notice YN	NOYN	Generate a notice YN. If left blank this parameter is set as default to N-No.	No	N
Notice on Pmt Change Only YN	8NCO	This parameter defines if a notice should be produced even when no change in payment amount. This parameter is only applicable if Notice YN (NOYN) is set to Y. When set to Y – A notice is only produced if there is a change in the payment amount. When set to N – A notice is generated for all selected account. If left blank this parameter is set as default to Y-Yes.	No	Y
Branch Addressing YN	BRAD	When this is set to “YES”, Branch Addressing is used on the notices.	No	N

Parameter	Code	Description	Required	Default
Sort No-Mails to Front	SNOM	For Account level notices. Y = YES, all no-mail letters are sorted to the front. N= No, do not sort no-mail letters to the front..	No	N
Date of Last Advance Acct UF	8VAF	Account level user field code to store Date of Last Advance. User field must be a "DATE" data type. If left blank system Date of Last Advance will be used. If Date of Last Advance is blank the application will use the contract date.	No	<Blank>

Variables:

The calculation variables are required at the product level and will support account level overrides.

Calculation Category	Code
Recalculate Loan Payment Vars	8HLC

Calculation Type	Code
Recalculate Loan Payment Vars	8LPT

Variable	Code	Description	Data Type	Default
Reason to Recalc Payment	8RPR	This variable will determine the reasons to recalculate the payment of an account. 1 = Advance 2 = Rate Change 3 = Advance and Rate Change 4 = Always 5 = Never	STR	<Blank>

Variable	Code	Description	Data Type	Default
Payment Calculation Method	8PCN	<p>1 = Percentage of Balance 2 = Tiered Pmt Based on Balance (Note: If the tier value is less than 1.00, the application will assume that this is a rate and not a fixed payment amount – this will allow financial institutions to have a mix of rates and fixed payment amounts based on the balance ranges) 3 = Term Payment 4 = Level Principal Payment 5 = Tiered Pmt Based on Note Rate 6 = Term Pmt Based on Balance 7 = Percentage of Current Balance based on Current Credit Limit Amount (this option uses the loan limit amount to determine the tier to use when calculating the payment on the current balance)</p> <p>NOTE: Methods 1, 2, 5, 6 and 7 require the use of a calculation schedule (For Method 6, enter the term/1000, for example, 60 months would be entered as .06; 120 months would be entered as .12 etc.). Methods 3 and 6 also require the use of the Balance to Use calculation variable.</p>	STR	<Blank>
Minimum Monthly Payment	8MIN	The minimum payment to enforce when recalculating the payment amount. Enter whole dollar amounts only, i.e. 50 is \$ 50.00.	CUR	<Blank>

Variable	Code	Description	Data Type	Default
Minimum Pmt Compare YN	8CPM	<p>Allows financial institutions to not enforce the minimum payment when that amount would be more than is required to pay the loan down to 0.</p> <p>Y = Yes, the principal balance of the account is less than the minimum payment amount, the newly calculated payment will be the balance of the loan plus estimated accrued interest through the next payment due date.</p> <p>N = No. Minimum payment is always enforced on the account regardless of the balance of the loan.</p>	YN	<Blank>
Payment Calc Schedule Number	8PCS	<p>The calculation schedule number that should be referenced when recalculating the payment amount. A tiered balance schedule must be established to identify the payment percentages or amounts associated with the different balance ranges.</p> <p>NOTE: This variable is required when the Payment Calculation Method is either 1,2 or 7.</p>	INTG	<Blank>
Annual Payment Recalc Date	8ARD	<p>The date of annual payment recalculation outside of the current variable Reason to Recalc Payment. When the annual payment recalculation date falls on a non-processing day, the recalculation will be performed during the preceding processing day.</p> <p>Enter as MMDD</p> <p>If this variable is blank, it will not be considered.</p>	STR	<Blank>
Allow Payment Change	8APC	<p>Allow a payment change when the recalculated payment is less than the current payment amount.</p> <p>Y = Yes allow payment change N = No do not allow payment change</p>	YN	Y

Term Definition	8PTD	<p>1 = Remaining Term - the application will use the remaining term to recalculate the payment</p> <p>2 = Specific Term -a specific term must be input into the Specific Term Variable. This value should be selected for Term Pmt Based on Balance payment calculation method with a blank value for Specific Term (8STV).</p> <p>3 = Not applicable</p> <p>4 = Remaining Term except Advances - Remaining Term unless an Advance was processed then use the Specific Term</p> <p>5 = Remaining Term except Rate Chg - Remaining Term unless Rate Change has occurred then use Specific Term</p> <p>6 = Remaining Term except Adv or Rate - Remaining Term unless an Advance was processed or Rate Change has occurred then use Specific Term</p> <p>7 = Specific Remaining Term – Specific Term for advances and remaining term since last advance for rate changes (Remaining Term = Specific Term minus (date of last advance less number of months from last advance to rate change)).</p> <p>8 = Remaining Amort Term – If balloon loan, the remaining Amortization Term will be used. If the loan account is not designated as a balloon loan, the remaining term will be used</p> <p>NOTE: Remaining term is determined by first looking for an amortization term in the account interest history when the balloon indicator is set to Y, then if there is no value, the Anticipated Payoff Date</p>	STR	<Blank>
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Variable	Code	Description	Data Type	Default
		<p>or Maturity Date will be used to determine the remaining term.</p> <p>Specific Remaining Term for rate changes is determined by calculating the number of months since the last advance to the effective date of the rate change. The whole number of months since the last advance to the rate change will be subtracted from the Specific Term to determine the remaining term.</p> <p>If the Date of Last Advance account-level user field is populated with a date, the application will use that date for Date of Last Advance when calculating a new payment amount due to a rate change.</p>		
Specific Term	8STV	<p>The value of the term in months to use when calculating the new payment subsequent to a rate change or an advance. The number of months to use for amortizing when calculating a new payment. When the Term Definition variable is set to Remaining Term, this variable should be left blank. It should also be left blank for the payment calculation method of Term Pmt Based on Balance.</p>	NUM	<Blank>
Round Principal Balance	8RPB	<p>Indicates whether the principal balance should be rounded prior to the payment recalculation.</p> <p>Valid values are:</p> <ol style="list-style-type: none"> 1. Do Not Round 2. Round to Nearest Hundred 3. Round up to Next Hundred 4. Round to Nearest Thousand 5. Round up to Next Thousand. 	STR	<Blank>

Variable	Code	Description	Data Type	Default
Payment Rounding Method	8RND	<p>Indicates whether the payment should be rounded after being calculated.</p> <p>Valid values are:</p> <ol style="list-style-type: none"> 1. Do Not Round 2. Round to Nearest Dollar 3. Round Up to Next Dollar 4. Round Up Non-Monthly Pmts <p>Round Up Non-Monthly Pmts works exactly the same as Round Up to Next Dollar except it only applies to payments that are not monthly, so monthly payments will not be rounded.</p> <p>Additional rounding options are available by using the User-Defined Pmt Rounding Meth to enter a custom rounding method code.</p>	STR	<Blank>
Update Pre Authorized Transfer	8UPA	<p>This variable will determine in what situation Scheduled Pre Authorized Transfer amounts should be updated.</p> <p>Three options will be offered:</p> <ol style="list-style-type: none"> 1. Update Same Frequency Only. (will display as EQUAL) 2. Update Mismatch Frequencies - Update all transfer amounts, regardless of mismatched frequencies where the Monthly Payment Amount will be divided to match the Pre Authorized Transfer schedule. Only Monthly Payments are eligible for this process. (will display as ALL) 3. Exclude Transfer from Update - Exclude transfer records from being updated. (will display as NONE) 	STR	<Blank>
Balance to Use	8BTU	<p>This variable will determine what balance to use when calculating the Term Payment Based on Balance (Payment Calculation Method 6).</p> <p>Two options will be offered:</p> <ol style="list-style-type: none"> 1. Current Balance 2. Balance as of Last Advance 	STR	<Blank>

Variable	Code	Description	Data Type	Default
User-Defined Pmt Rounding Meth	8URM	<p>Indicates whether the payment should be rounded after being calculated using the financial institution defined rounding methods created in the system RNDMETH table.</p> <p><u>If there is a value in this variable it will override the existing payment rounding variable (8RND).</u></p> <p>For example, a Financial Institution creates a new rounding method in the System Table RNDMETH called 'Custom Round 10' (RN10). The RndMethAmt in the table is 10. If the application calculates the payment amount to be \$75.84 without any rounding and the Financial Institution uses this variable with a value of 'RN10', the following calculation will be performed (based on the different Up/Down checkboxes):</p> <p>If the Round Up = Round Down checkbox (meaning they're both checked or they're both unchecked) the calculation would be:</p> $\text{TRUNC}(75.84 / 10) * 10 + (\text{ROUND}((75.84 - \text{TRUNC}(75.84 / 10) * 10) / 10) * 10)$ <p>If Round Up is only checked, the calculation would be:</p> $\text{TRUNC}(75.84 / 10) * 10 + 10$ <p>If Round Down is only checked, the calculation would be:</p> $\text{TRUNC}(75.84 / 10) * 10$ <p>Note: The Financial Institution defined RNDMETH must have a value in the RoundMethAmt</p>	STR	<Blank>
Include Non Cap. Pmt. Calc	8NCP	<p>This variable determines whether the SINS is considered when calculating the new payment</p> <ol style="list-style-type: none"> SINS 	STR	<Blank>

Variable	Code	Description	Data Type	Default
Add Accrual – Pmt Difference	8APD	<p>When set to 1, the application calculates the interest accrual for 30 days based on the principal balance. The positive difference between the calculated accrual amount and the calculated new payment amount (Accrual minus new payment amount is not negative or zero) is updated to the additional payment amount user field and the new payment is set to 30 days interest.</p> <p>If the accrual minus new payment amount is negative or zero, 0 is updated to the additional payment amount user field.</p> <p>Note: If the account/product variable Minimum Pmt Compare YN (8CPM) is set to Y and the accrual amount is less than the account/product variable Minimum Monthly Payment (8MIN), the Minimum Monthly Payment is used.</p>	STR	<Blank>

Calculation Schedule:

If you choose to create a rate schedule, this purpose code is available.

Purpose Code	Calculation Schedule Purpose Description
8RLP	Recalculate Loan Payment

Transaction Reporting Group:

System Tables>P-R>RtxnRptGrp>(8LNG) Custom Payment Recalculation>Link Transaction Types

Transaction Reporting Group	Code	Default Transaction codes
Custom Payment Recalculation	8LNG	PDSB, OPA, CKUS, CWTH

External Interface Variables:

Services>System>System Tables>C-G Tables>External Interface Cross Reference

External Interface Category

External Interface Category	Code	Description
Period Multiplier for PreAuth	8PMP	The external interface category is used to determine the factor to multiply the Monthly payment by to update the Pre-Authorized transaction by.

External Interface

External Interface	Code	Description
Period Multiplier for PreAuth	8PMP	The external interface category is used to determine the factor to multiply the Monthly payment by to update the Pre-Authorized transaction by.

External Interface Variable

External Interface Variable	Code	Description
Period Multiplier for PreAuth	8PMP	The external interface category is used to determine the factor to multiply the Monthly payment by to update the Pre-Authorized transaction by.

Default values provided:

From Value	To Value
BIWK	0.5
BWK4	0.5
MNTH	1.0
SEMM	0.5
SM5E	0.5
SM6E	0.5
SM15	0.5
WEEK	0.25
WEK4	0.25

Scheduling and re-run information:

This is an updating application that cannot be run back in time.

Notices:

It is the institution’s responsibility to create a text file in accordance with standard DNA processes and save it to their text file directory with the name PS_LOANPMTRECALC.txt. The following text markers are supported within the text file. Please refer to the DNA Batch Letters documentation for more information.

Notice Marker	Description
ACCT	The account number
BANK	The name of the financial institution or branch.
CUST	The name of the customer/member.
DATE	The data of the report run in MM-DD-YYYY format.
FONE	The phone number of the financial institution or branch.
LDTE	The formatted date of the report run (i.e., September 10, 2010).

Notice Marker	Description
PROD	The name of the account product
SALU	The customer/member name and salutation (i.e., Mr. John Smith)
SEQN	The sequence number of the current letter
DTE1	The payment effective date
AMNT	The current payment amount (prior to payment change)
AMT2	The new payment amount
RATE	The interest rate in effect
DTE2	The current next payment to be billed (If the repayment product is Cycled, the payment effective date is used)
AMT3	The Principal Balance minus any outstanding principal receivable(s) due for the account.

Notice Variables:

Calculation Category	Code
Customer Notices	NTCE

Calculation Type	Code
PS_LOANPMTRECALC	8LPC

Variable	Code	Description	Data Type	Default
Address Column	ADCL	Column for the address.	INTG	5
Address Line	ADLN	Line for the Address	INTG	17
Account Number Column	ANCL	The column in which the Account Number is displayed	INTG	11
Account Number Indicator	ANIN	A Y or N to indicate whether the account should be included.	YN	Y
Account Number Line	ANLN	The line in which the Account number is displayed	INTG	10
Account Number Text	ANTX	User defined Text which is displayed to indicate the account number.	CHAR	RE:
Account title type	ATTP	The type of account title to print on statements: 1 = Nothing prints before the account number and after the text set in the Account Number Text (ANTX) variable 2 = Product description prints before the account number and after the text set in the Account Number Text (ANTX) variable 3 = Alternate product description prints before the account number and after the text set in the Account Number Text (ANTX) variable	NUM	3

Variable	Code	Description	Data Type	Default
Inst name/address column	BNCL	Column for the institution (or branch) name and address.	NUM	5
Inst name/address Indicator	BNIN	Indicates if the institution name, phone number, and address are printed. Y = Print the name, phone number, and address. N = Do not print the name, phone number, and address.	YN	Y
Inst name/address line	BNLN	Line for the institution (or branch) name and address.	NUM	4
Max inst name/address lines	BNMX	Maximum number of lines allowed for the institution name and address.	NUM	5
Date Column	DTCL	Column for the date.	INTG	5
Date Indicator	DTIN	Indicates if the date is printed. Y = Print the date. N = Do not print the date.	YN	Y
Date Line	DTLN	Line for the date.	INTG	13
Date Type	DTTP	Date format.	CHAR	1
Date Text	DTTX	Institution-defined text placed in front of the date.	CHAR	<Blank>
Input file column	IFCL	The Column in which the Input file will be displayed.	NUM	2
Input file line length	IFLE	The maximum length of input file.	NUM	80
Input file print line	IFLN	The Column in which the Input file will be displayed.	NUM	20
Sequence Number Column	SQCL	The column in which the Sequence number will be displayed.	NUM	1
Sequence Number Indicator	SQIN	A Y or N value to indicate whether the sequence number will be displayed.	YN	N
Sequence Number Line	SQLN	The Line in which the Sequence number will be displayed.	NUM	1

Reports:

Report sorted by based on SNOM parameter defaulted to Major/Minor/Last Name(Organization Name)

Exceptions:

Message	Scenario
No Payment Calculated –Review Account	No existing payment on the account and the Note Due balance type is not on the product.
Pmt Updated Only-Review Allotment	Scheduled Pre-Authorization frequency doesn't match the payment frequency and the preauthorized transfer amount was not updated.
Pmt Updated-Future Pmt Amt Deleted	A future dated payment amount was deleted from the account during the recalculation.
Error reading Rate Schedule specified by 8PCS product variable. Please review.	If the payment calculation method is either <ul style="list-style-type: none"> • Percentage of Balance • Tiered Pmt Based on Balance • Tiered Pmt Based on Note Rate • Term Pmt Based on Balance then a valid Rate Schedule Number must be entered in the "Payment Calc Schedule Number" (8PCS) product-level variable. Review both the variable and associated Rate Schedule for incorrectly setup data.
The Payment Type of XXXX is invalid for this application.	This program only supports loan payment types of "FDUE", "FBI" and "FB"
Payment cannot be updated - A VINT row must be setup for FB loans.	Loans with a Note/Balance payment type of "FB" must have the Note/Interest payment type set to "VINT".
Acct # XXXX – Multiple User Field values exist - payment amount not updated	When an account has both an active Alternate Payment amount and an active Additional Payment Amount user field.
Invalid custom Rounding Method Code specified: XXXX or Rounding Method Amount must be greater than zero	Calculation Variable (8URM) has a value however the value either does not exist in the System Table 'RNDMETH' or the value exists but does not have RndMethAmt value
The Payment Frequency does not exist	The payment period does not exist on loan
The Payment Frequency of XXXX is invalid for this application	The payment period is not valid
The Reason Recalc Payment variable is not set on the following product: XXXX	Recalc Payment Reason is not set
ERROR - The payment was not Recalculated for Account: 9999999	A new payment amount could not be calculated.
ERROR - The Addtl Pmt Amt User Field parameter not provided for Add Accrual – Pmt Difference	The Add Accrual – Pmt Difference (8APD) account/product variable is set to 1 and the user field to update with the difference has not been provided in the Addtl Pmt Amt User Field parameter (8APA)
ERROR - The account has an Alternate Payment user field value	The Add Accrual – Pmt Difference (8APD) account/product variable is set to 1 and the account has an Alternate Payment user field value

Warning Messages:

Message	Scenario
WARNING - Payment updated - future payment amount was deleted or WARNING - Payment will be updated	A future dated payment exists

Message	Scenario
and a future payment amount will be deleted	
WARNING - Payment updated only - Allotment Period not MNTH, BIWK or WEEK cannot divide payment	Scheduled Pre-Authorization exists, Payment frequency is Monthly, the Pre-Authorization frequency is not Monthly and the Pre-Authorization frequency is missing or invalid from the External Interface Cross Reference variable "Period Multiplier for PreAuth"
WARNING - Payment updated only - Payment Period not MNTH cannot divide the pre-authorized tran	Scheduled Pre-Authorization exists, Payment frequency is other than monthly, Pre-Authorization frequency does not equal Payment frequency
WARNING - Payment updated only - review pre-authorized transactions	A scheduled Pre-Authorization exists, however the Update Pre Authorized Transfer variable is set to NONE or a schedule Pre-Authorization exists, and the runtime parameter Update Active Allotments is set to No.
WARNING - Payment not recalculated. Recalc Payment Reason set to NEVER	Recalc Payment Reason set to NEVER

Non-transaction Updating: Activity

Activity Category	Code	Activity Type	Code	Activity Subject
Account	AMNT	Account	CMPT	Account
Account	AMNT	Account	LOAN	Account
Account	AMNT	User Defined Fields	UFLD	Account

Note:

Note Location	Class Code	Sub Class Code	Text
Account	NOTE	DFLT	Pay amt changed from 99999.99 (CurrLoanPmntAmt) to 99999.99 (NewPaymentAmt) on MM/DD/YYYY by PS_LOANPMTRECALC

Additional requirements:

- Requires DNA 4.0 or higher
- This process will not create or edit receivables. DNA processing will continue to generate all necessary receivables based on the Next Payment to Be Billed at the account level (if calendar period receivable generation) and/or the Cycle (if On Cycle receivable generation) using the billing receivable lead days on the product. Also, this process will not reset the Next Payment to Be Billed on a paid ahead account when the payment is recalculated.
- This application does not produce notices.
- This is an updating application that cannot be run back in time.
- The capability to suppress a third biweekly transfer in a month is not included.
- No changes are being made to DNA payment processing thru any channels.

Configuration Checklist:

Please review the items indicated in the checklist below and ensure that all items have been properly setup before running this application.

Item	Test Environment	Production Environment
Parameters		
Variables		
External Interface CrossReference		
Notice template (.txt) file		
Notice Variables		

Installation:

Install the application through DNAapp Management Console (formerly known as DNA Configuration Toolkit). The instructions on how use the DNAapp Management Console should be delivered along with the DNAapp Management Console. Please contact Client Care if you need assistance using the DNAapp Management Console.

This DNAX will be installing the following SQT file(s): PS_LOANPMTRECALC.sqt. The DNAapp Management Console will place all SQT files in the location specified in the EXTNS Batch Report Directory 'BATE' Institution Option batch application directory. You may need to move the SQT out of the EXTNS folder over to the PS batch application directory specified in the PS Batch Report Directory 'BATP' Institution Option depending on what has your nightly batch requires.

Note: If a previous installation was not with a DNAX file, ensure that a prior version of the .SQT does not exist in the PS batch application directory specified in the PS Batch Report Directory 'BATP' Institution Option.

Revisions:

Date	App Version #	Change
09/2023	1.4.0.0	Added "Remaining Amort Term" Term Definition (8PTD) variable value; Changed report examples in document; updated default values of notice variables in document
08/2023	1.3.0.3	Added code to only update the allotment amount if the new payment is greater than the current loan payment.
04/2023	1.3.0.2	Description of CalcVar "8CPM" has been modified to "Minimum Pmt Compare YN", instead "Mininum Pmt Compare YN".
02/2023	1.3.0.1	Modified installation script to create Activity Category AMNT/Activity Type UFLD to resolve ACTV3175 unique constraint error
01/2023	1.3.0.0	Modified data types in installation script for parameter 8RPS and calculation Variable 8PCS; Added activity category/type for user field update in document; Added calculation variable 8APD, parameter 8VAF, transaction reporting group 8LNG and calculation schedule purpose 8RLP to uninstall script
11/2022	1.3.0.0	Added Add Accrual – Pmt Difference (8APD) product variable and when the new payment amount is less than 30 days interest, set the payment amount to 30 days interest and update the Additional Payment

Date	App Version #	Change
		Amount account field with the difference between the new payment amount and 30 days interest.
10/2022	1.2.2.1	Added 8VAF (Date of Last Advance Acct UF) parameter for entering optional code for an account-level user field which holds the date of last advance when the Term Definition variable is set to "Specific Remaining Term".
08/2022	1.2.2.0	An additional option is added to variable Term Definition titled Specific Remaining Term where the recalculation of the payment based for advances uses the Specific Term and the recalculation of the payment based upon a rate change uses the remaining term of the Specific Term used for the payment recalculation for the last advance.
08/2022	1.2.1.9	Add clarification to displayed values for the variable 'Update Pre Authorized Transfer' – 8UPA
04/2022	1.2.1.9	Produced Notice for Payment Change.
09/2021	1.2.1.8	Changed reference to AppMarket
04/2021	1.2.1.8	Modified Amortization Term (Balloon Loans only) from days to months when recalculating payment amount.
01/2021		Modified document: font, table sizing, parameter consistency, added tables for activity updates and note updates. Added interface to/from tables, added Transaction reporting group table, modified tense, added info on rate schedule purpose code.
10/2020	1.2.1.7	Reconsider the logic of calculation of Non Capitalized SINS.
08/2020	1.2.1.6	Changed label to Fiserv Confidential
06/2020	1.2.1.6	Recompiled .sql to correct Activity writes (accounts numbers appended with .000000 causing an error "Write-Actv (12899) ORA-12899: value too large for column "OSIBANK"."ACTV"."RPTSORTKEY"); Documentation report sorting description corrected; Documentation updated for Fiserv classification. Deleted 8UAA parameter "V" value as an option in installation script (Only values are Y or N are supported); AppMarket Installation script description for Calculation Variable Value U\$1 changed from Round Up To Nearest Dollar to Round Up To Next Dollar; Cleaned up updates in installation script; Updated 8URM description in Document from 8URM User Defined Payment Rounding Method to User-Defined Pmt Rounding Meth
06/2020	1.2.1.5	Documentation update – Update Active Allotments (8UAA) parameter options updated
05/2020	1.2.1.5	Application is enhanced to consider Non Financed Debit Protection Premiums (SINS) in the new calculated payment.
10/2019	1.2.1.4	Fixed validation findings.
10/2019	1.2.1.3	Changes done for table PS_LOANPMTRECALC, to handle unique constraint error.
10/2019	1.2.1.2	Added column RCVBGENMETHCD to the reporting table PS_LOANPMTRECALC.
10/2019	1.2.1.1	Changes done for the reporting table, deleting data from PS_LOANPMTRECALC before it starts processing.
08/2019	1.2.1.0	Added reporting table PS_LOANPMTRECALC
01/2019	1.2.0.9	Preauthorization updates limited from Scheduled preauthorizations to Scheduled preauthorizations associated with the transaction of "Regular

Date	App Version #	Change
		Payment” so that Scheduled preauthorizations associated with “Principal Receipt” are not updated.
12/2018	1.2.0.8	Modified logic when the remaining balance is less than the payment amount to exclude future transactions posted carry over in the payment calculation.
10/2018	1.2.0.7	Corrected Set Up script file extension from SQL to WTS.
03/2018	1.2.0.6	Addressed issue where multiple payment rows resulted in cases where a payment amount was being changed and a payment already existed for that day.
02/2018	1.2.0.5	Documentation update - Added Fiserv Confidential Label
01/2018	1.2.0.5	Corrected Term Payment Calculations for non-Monthly, non-Biweekly, non-Twice Monthly payment frequencies
11/2017	1.2.0.4	The correct business day will now be selected when running the application after midnight.
09/2017	1.2.0.3	Addressed issue with payment amounts inadvertently updated when application run non-updating.
12/2016	1.2.0.2	Corrected Percentage of Current Balance based on Current Credit Limit Amount option to get the limit as of the queue effective date instead of the day before.
8/2016	1.2.0.1	Added new payment calculation method to 8PCN variable. Percentage of Current Balance based on Current Credit Limit Amount (this option uses the loan limit amount to determine the tier to use when calculating the payment on the current balance)
04/2016	1.2.0.0	Added Create Account Note (8CAN) runtime parameter Added Key benefits to document Changed documented exception Multiple User Field values exist - payment amount not updated in document to match application EXCEPTION: Payment not updated-Alternate and Additional Payment user fields both have values Added all missing exceptions to document
06/2015	1.1.0.2	Future Payments functionality changed to only look for Note Balance, Note Interest and Note Due payments
02/2014	1.1.0.1	Added new variable 8URM which provides an option for using user-define rounding methods.
08/2013	1.1.0.0	Fixed the validation findings.
06/2013	1.0.0.0	Re-Packaged and Re-documented for AppMarket.
10/2011	1.0.0.0	Clarified Term Pmt Based on Balance and Term Definition/Specific Term variable settings; clarified Rate Change activity and Start and Thru Date runtime parameters.
04/2011	1.0.0.0	Added Term Payment Based on Balance Payment Calculation Method and Balance to Use specifically for this method and Term Payment method.
04/2011	1.0.0.0	Changes added for case 1408704 and 1408749. The changes added a cross-reference when relating a Monthly payment to an alternate calendar period for the Pre-Authorized Transaction and adding an extend output format.

Date	App Version #	Change
02/2011	1.0.0.0	Added the following enhancements: Rate Review, Additional Payment Amount, Pre Authorized Transfers and Payment Recalculation Term options.
01/2011	1.0.0.0	Corrected Minimum Pmt Compare YN variable; was 8MPC, correct value is 8CPM.
01/2011	1.0.0.0	Explained biweekly calculations for minimum monthly pmt.