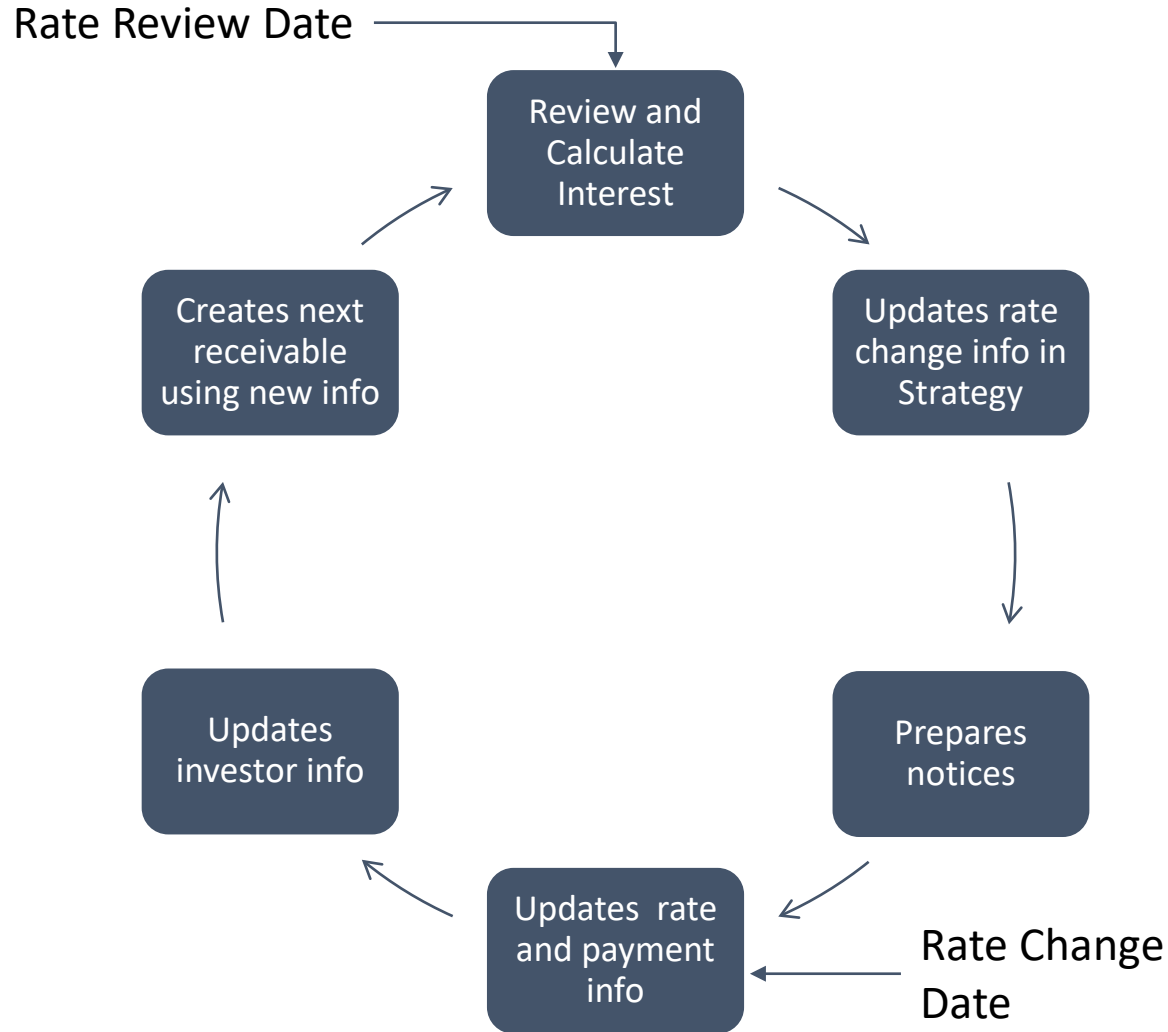# Adjustable Loan Processing in Strategy

Adjustable Loan Processing in Strategy

- Overview of the session
  - Adjustable Loan Setup
  - Strategy's Adjustable Loan
  - What's New
  - Transition to SOFR

Strategy's Adjustable Loan Processing

Rate Review Date

Review and Calculate Interest

Updates rate change info in Strategy

Prepares notices

Rate Change Date

Updates rate and payment info

Updates investor info

Creates next receivable using new info

Automates the review and adjustment of pay rate interest and payments using system and loan level parameters

3

System Level Setup

System Control

◦ The number of days you'll allow for backdating of a rate is found in the system control.

◦ The Allow Negative Index field is a Yes/No field to turn on or off the ability to enter negative values in Index related fields.

◦ The parameters found in your system control file will dictate the lows and highs allowed in your adjustable loan records.
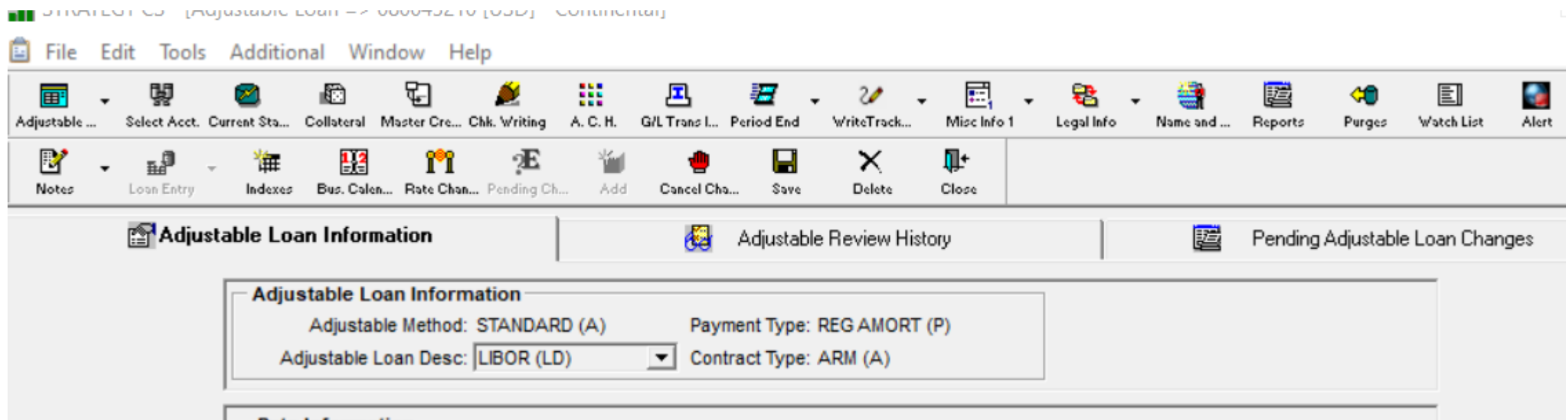
System Control

System Control

APR %:	0.0000000000000	20.0000000000000
Late Charge Rate %:	2.00000000000	10.00000000000
Term (Years):	0	40

Adjustable Loan Information

Interest Rate (Floor) %:	0.0000000000000	20.0000000000000
Interest Rate (Ceiling) %:	0.5000000000000	30.0000000000000
Minimum Adj Per Review %:	0.0000100000000	30.0000000000000
Review Increase Cap %:	0.0000100000000	30.0000000000000
Review Decrease Cap %:	0.0000100000000	30.0000000000000
Base Index %:	-1.0000000000000	15.0000000000000
Margin (+ or -) %:	-10.0000000000000	20.0000000000000
Rounding Factor %:	.0001000000000	.7500000000000
P&I Increase Cap %:	0.00100000000	99.99900000000
P&I Decrease Cap %:	0.10000000000	99.99900000000
P&I Increase Cap $:	1	99,999
P&I Decrease Cap $:	1	99,999

Tree navigation:
- Relationship/Cor
- Pipelyne/Loan E
- Allowable Value
- Purge Paramete

ARM Tool Bar

Index Rates

◦ Index Rates
  ◦ Indices are defined by your organization
  ◦ Manual Update
  ◦ Upload using MATI
  ◦ Use API available in R20

Index Rates

Index Rates

Business Calendar

◦ Business Calendar
  ◦ Ability to set up multiple business calendars
  ◦ Tied to Rate Change Date and/or Rate Review Date
  ◦ Rate Change with Business Calendar cannot be used with Payment Types A, D, P
  ◦ Rate & Payment changes could occur on different days, therefore neg am or fixed principal payment types are required.

ARM Tool Bar

- Business Calendar

Creating an ARM record

Contract Type must be anything other than an F

◦ If loan is Fixed rate, an ARM record can be added, but neither the rate or the payment will change

Adjustable Loan Default in Loan Entry

• Keys are Adjustable Loan Description and Index

Creating or Updating an ARM Record

The Adjustable Loan wizard was designed to HELP you set up your records correctly.

Business edits are in place to help guide and make sure that the appropriate data is input to the system.

Creating or Updating an ARM Wizard

Adjustable Rate Methods

Strategy's Adjustable Rate Methods determine how Strategy calculates the interest rate using the provided parameters, constants, and constraints

Standard Methods

A	Margin is added to the new Index Rate; this is the most widely used method. This code impacts the calculation of Investor Net Yield when there is a floating net yield on the investor.
J	Margin is added to the index with periodic caps.
K	Index is multiplied by the margin to represent a % of the Index
P	Allows you to use up to two margins and two user-defined arithmetic operators (add/subtract/multiply or divide). With Adjustable method P, the Margin #1 and Operator #1 are required entries used to calculate the new rate. Margin #2 and Operator #2 are optional fields; if they are not used, then the new rate will be the result of Margin #1 and Operator #1 only. If there is a value in the Margin #2 and Operator #2 fields, an additional calculation is performed with these values.

Exception Loans

E	Loan is an exception and must be handled manually. Exception loans must be monthly reviewable; daily reviewable loans cannot use this method.

Federal Home Loan Bank (FHLB) Methods

B	Uses previous index and current rate, then rounds change in rate.
F	Uses previous index and current rate and rounds rate.
L	Uses original index and original rate and rounds change in rate.
M	Uses original index and original rate and rounds the rate.

Step Rate Methods

C	Rate is adjusted up or down based upon a set percentage.
D	Rate is adjusted and converted to a fixed rate.

Growing Equity Loan Methods; not valid for Payment Type F, I, R, or Q

G	P&I Payment increase only, based upon a %.
H	P&I Payment increase only, based on a $.

Compounding in Arrears (SOFR)

6	Compounding in Arrears – Rate 1 Compounding the Rate – simple margin
T	Compounding in Arrears – Rate 1 Compounding the Rate – simple margin & spread adjustment
7	Compounding in Arrears – Rate 2 Compounding the Balance – simple margin
3	Compounding in Arrears – Rate 2 Compounding the Balance – simple margin & spread adjustment

Payment Adjustment

◦ If payment type = P, cannot be daily reviewable.

◦ As the interest increases a neg am situation could arise. So, daily reviewable must allow for neg am (payment type G)

Adjustable Loan Update Wizard

Enter Adjust
Loan Info

Adjustable Loan Information

New Loan: NO (N)

Adjustable Loan Desc: LIBOR30DAY (LD)   **Payment Type:** REG AMORT (P)

Adjustable Method: STANDARD (A)   **Contract Type:** ARM (A)

Rate Information

Monthly or Daily Review:	(M) MONTHLY	
Rate Change Frequency:	1	
Look Back Method:	(B) BACK	
Look Back Days For Rate Reviews:	2	
Business Calendar:	MFS BUSINE (001)	
Use Business Calendar: Review Date:	YES (Y)	
Rate Review Date:	10/12/2017	
Use Business Calendar: Change Date:	NO (N)	
Business Calendar Options:		
Rate Change Date:	10/15/2017	
Rate Chg Anniversary Date:	10/15/2017	
Original Index %:	.0000000000000	

New Interest Rate %: 8.2700000000000

Previous Interest Rate %: 8.2700000000000

New Rate Without Caps %:

Index Description: TEST 2 (T2)

New Index %: 4.2700000000000

Previous Index %: 4.2700000000000

# of Rate Reviews to Date: 9

Maximum # Of Rate Reviews:

Option Date: 00/00/0000

Previous Review Date: 09/13/2017

P&I Payment Information

P&I Chg Freq:

P&I Change Date:

P&I Re-Amort Freq:

P&I Re-Amort Date:

New P&I Payment:

Prev P&I Payment:

# of Payment Reviews to Date:

Rate Sched For P&I Pmt: NO (N)

P&I Amortization "To" Date:

Notice Information

Print Notice: NO (N)

Notice Days From Review:

Print Notice Date:

< Back   Next >   Finish   Cancel   Help

Ready

Adjustable Loan Information

New Loan: NO (N)

Adjustable Loan Desc: LIBOR30DAY (LD)   Payment Type: REG AMORT (P)

Adjustable Method: STANDARD (A)   Contract Type: ARM (A)

Rate Information

Interest Rate Margin %:	4.0000000000000	Rate Review Increase Cap %:	.0000000000000
Rate Rounding Method:	NEAREST (N)	Rate Review Decrease Cap %:	.0000000000000
Rate Rounding Factor %:	.000000000000	Minimum Rate Adj Allowed %:	.0000000000000
Original Interest Rate %:	.0000000000000	Starting Rate for This Period %:	
Index Rounding Method:		Period Rate Cap %:	
Index Rounding Factor %:		Math Operator #1:	
Rate Floor & Ceiling Exp Date:		Margin #1 %:	
Interest Rate Floor %:	.000000000000	Math Operator #2:	
Interest Rate Ceiling %:	.000000000000	Margin #2 %:	
		Status:	

P&I Payment Information

P&I Payment Method:	Round P&I Payment:
P&I Payment Cap Expiration Date:	P&I Increase Cap Amount:
P&I Increase Cap %:	P&I Decrease Cap Amount:
P&I Decrease Cap %:	Master File Interest Basis: 365/ACT LY (A66)
Minimum Pmt Adj Allowed:	Interest Basis for P&I Calc:

Enter Adjus
Loan Info
Constants

Rate, Floors, Ceilings and Caps

P&I Payment Change Information

P&I Payments Constants and Constraints

Strategy Adjustable Loan

Rate Review Date

- Using the information you have setup for the loan, Strategy will calculate the new rate and new payment amount
  - Based on lookback days and Business Calendars that are applied to the loan

- The resulting information is put into an Adjustable Review History record (PARMH)

- The dates and rates in the Adjustable Loan Information are then rolled and updated as needed

Rate Change Date

- Using the information from the Adjustable Review History record, Strategy….
  - Updates the Interest Rate in the Master file
  - Updates the Payment Amount in the Master File

- Between the Rate Review Date and the Rate Change Date, you could change information in the History record.

- Changes made to the History record after the Rate Change date will not impact the loan (it would be informational only).

Date Definitions

- **Rate Change Anniversary Date**
  - Scheduled anniversary date of rate changes on a normal calendar basis
  - For monthly reviewable loans, this is typically the payment anniversary date

Date Definitions

- **Rate Review Date** is the date the new rate is established (when the index value is retrieved).
  - Not tied to a Business Calendar
    - Back up from the rate change anniversary date by the number of lookback days indicated.
  - Tied to a Business Calendar
    - Back up from the rate change anniversary date by the number of lookback days – counting ONLY business days (ignoring weekends and holidays)

Date Definitions

- **Rate Change Date**
  - Not tied to a business calendar
    - Same as Rate Change Anniversary Date
    - Scheduled rate change date
  - Tied to a business calendar
    - If the Rate Change Anniversary Date falls on a non-business day, the Rate Change Date is changed to the next business day (following the rate change anniversary date).

No Business Calendar

No Business Calendar in Use

Using Business Calendar – Rate Review Date

Rate Information

Monthly or Daily Review:	(M) MONTHLY
Rate Change Frequency:	1
Look Back Method:	(B) BACK
Look Back Days For Rate Reviews:	20
Business Calendar:	MFS BUSINE (001)
Use Business Calendar: Review Date:	YES (Y)
Rate Review Date:	08/05/2019
Use Business Calendar: Change Date:	NO (N)
Business Calendar Options:	
Rate Change Date:	09/01/2019
Rate Chg Anniversary Date:	09/01/2019
Original Index %:	.0000000000000

Using Business Calendars: Review Date

Using Business Calendar – Rate Review Date & Rate Change Date

Using Business Calendars: Review Date and Rate Change Date

Rate Changes

- Individual Rate Changes
  - Tool in the Adjustable Loan Module
  - Individual Loan
    - Enter Loan #
    - Effective Date
    - Rate
    - Investor's Net Yield and Service Fee Rates
  - Loan doesn't have to be adjustable
  - Can input a date into the future

Account #: 150015001   Demo arm

Effective Date: | 00/00/0000 |

New Interest Rate %: | .0000000000 | Current Interest Rate %:   4.2700000000

New Annual Percentage Rate %: | .0000000000 | Current Annual Percentage Rate %:   .0000000000

Investor Rate Information

Inv #	Inv Name	Current Net Yield Rate %	Current Serv Fee Rate %	Current Guar Fee Rate %	Curent Exc Yield Rate %	New Net Yield Rate %	New Serv Fee Rate %	New Excess Yield Rate %	
800	D2 INV 800	4.1450000000	.1250000000	.0000000000	.0000000000	.0000000000	.1250000000		

Rate Changes

- Global Rate Changes
  - Add rate and date to the Index table
  - Rate Changes
    - Index
    - Backdate
  - Group of adjustable loans affected will be selected
    - Added to work file
    - Rate Review is performed at beginning of dayend
    - Interest adjustments will be created

Adjustable Review History

Type of Review	Rate Change Date	Review Date	New Int Rate %	Prev Int Rate %	New Index %	Prev Index %	P&I Change Date	New P&I Rate %	Mstr Rate Updated	Mstr P&I Pmt Updated
Rate	01/15/2017	01/12/2017	8.2700000000000	5.5000000000000	4.2700000000000	.0000000000000	00/00/0000	.0000000000000	YES	NO
Rate	02/15/2017	02/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	03/15/2017	03/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	04/15/2017	04/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	05/15/2017	05/11/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	06/15/2017	06/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	07/15/2017	07/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	08/15/2017	08/11/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO
Rate	09/15/2017	09/13/2017	8.2700000000000	8.2700000000000	4.2700000000000	4.2700000000000	00/00/0000	.0000000000000	YES	NO

Adjustable Review History

Pending Adjustable Loan Changes

- Future changes to Adjustable Loan Information

- Similar to Pending Changes for the Master File

- Checkboxes allow you to change a field to blank or 0

Adjustable Method: STANDARD   Monthly or Daily Review: Monthly

Effective	Status	Rate Chg.	Orig. Index/DIAL	New Int.	P&I Change	P&I Re-Amort.	New P&I	Index	Int. Rate
01/01/2020		12	.0000000000000 ☐	.0000000000000 ☐	☐	☐	.00 ☐	PRIME (PR) ☐	5.000000000

Effective Date: 01/01/2020   Adjustable Loan Description: [▼]

Rate Information

Rate Change Freq.: 12	☐ Rate Rev. Dec. Cap%: .0000000000000
Original Index/DIAL Base%: .0000000000000	☐ Min. Rate Adj. Allowed: .0000000000000
☐ New Interest Rate%: .0000000000000	Period Rate Cap%: .0000000000000
☐ Index Description: PRIME (PR) ▼	Math Operator #1: [▼]
☐ Interest Rate Margin(+or-)%: 5.0000000000000	Margin #1%: .0000000000000
☐ Interest Rate Floor%: .0000000000000	☐ Math Operator #2: [▼]
☐ Interest Rate Ceiling%: .0000000000000	☐ Margin #2%: .0000000000000
☐ Rate Rev. Inc. Cap%: .0000000000000	

P&I Payment Information

☐ P&I Change Freq.: [ ]   ☐ P&I Inc. Cap%: .000

Reports

Daily Supervisor Messages – MB442

◦ Review daily!!

◦ Interest has stopped accruing

◦ No receivable found

◦ Warnings

◦ Information Only

Reports

- MB173 Series
  - 2 sets in every dayend
    - Backdated
    - Rate Review
  - Summary by Review Frequency
    - LRPMB173
  - Exception List
    - MBEXCEPT
  - Loans Reviewed
    - MBRTRVU2
  - Method 'E' Loans
    - MBRTRVU1
  - Rate and Payment Changes Processed
    - MB173E

What is New

What is New

- Negative Index functionality

- SOFR Compounding in Arrears
  ◦ 4 new ARM method codes
  ◦ New logic for Floors/Ceiling
  ◦ Change in the deferred revenue
  ◦ Backdated Rates new logic

- Compounding SOFR Interest Widget

- Adjustable Loan Widget
  ◦ New Pending ARM changes

Negative Index

- In Release 19E you now have the ability to enter an index rate that is less than or equal to zero.

- Strategy will track the Index Rate just as it does now, based on the high and low values defined in System Control.

- The system change allows the low value in System Control to be negative as well as the Current and Previous Index % Values in the Adjustable Loan module, and the Index tables.

- Should the Index plus any margins calculate a new Interest Rate less than zero, Strategy will set the Interest Rate to Zero.

- At no time, will the Interest Rate used to calculate interest accruals fall below zero

SOFR Compounding in Arrears

- ## 4 new ARM methods

Method	Code	Description
Compounding the Rate Simple Margin	6	• Uses Compounding in Arrears Rate 1 Calculation. Only a simple margin is considered. • For new loans using Compounding in Arrears, Compound the Rate
Two Ops Compound % Simple Margin with Spread Adjustment	T	• Uses Compounding in Arrears Rate 1 Calculation – Simple Margin and a Spread Adjustment • Intended for existing loans transitioning from LIBOR, Compound the Rate
Compounding with the Balance Simple Margin	7	• Uses Compounding in Arrears Rate 2 Calculation. Only a simple margin is considered. • Intended for new loans using Compounding in Arrears, Compounding with the Balance
Two Ops Compound% Simple Margin with Spread Adjustment	3	• Uses Compounding in Arrears Rate 2 Calculation – both Simple Margin and a Spread Adjustment are considered. • Intended for existing loans transitioning from LIBOR, Compounding with the Balance

3

SOFR Compounding in Arrears

Loan Requirements

- Loan Payment Type must be:
  - G (Negative Amortization Allowed),
  - I (Interest Only); or
  - Q (Fixed Principal plus Interest)

- Cannot use Due Date Bill (Billing Cycle cannot be 'D')

- Cannot be Interest Basis Code A60 (30/360)

- DIAL Type must be '0' if using Compounding in Arrears

SOFR Compounding in Arrears

Loan Requirements

- Must be a Daily Reviewable Adjustable-Rate Loan, Frequency 1
  - Monthly or Daily Review set to Daily
  - Change Frequency set to '1'

- Use Business Calendar for Change Date must be 'Y' if Adjustable Method is either 'T' '3' '6' or '7' and Lookback Days is > 0.

- When using Adjustable Methods 'T' or '3', Operator #1 and Operator #2 must both be 'A' for Add

SOFR Compounding in Arrears

How Strategy calculates compounding in arrears

- The new Adjustable Rate methods call a new program to do the calculations for loans using the Compounding in Arrears Formula Codes.
  - The index rate is compounded using the compounding method dictated by the selected Adjustable Loan Method
    - Compounding the Rate (6 or T)
    - Compounding the Balance (7 or 3)
  - The margin and spread adjustment are calculated on a simple interest method
- Strategy saves the Total Daily Compounded Accrued Interest and all the components used to calculate that value in the new file PCMPNDSOFR

Compounding the Rate – Rate 1 Calculations

Result Field in PCMNPDSOFR	Calculations
Effective Rate QZEFFRT	# of Business Days * ((Interest Rate less the margin less the spread adjustment) /number of days in year for interest basis code)
Compounded Rate QZCMPDR	((1 + (Effective Rate/100)) * (1 + (Prior day Compounded Rate/100)) – 1) * 100
Compounded Rate Accrued Interest QZINDACL	(Unpaid Principal Balance * Compounded Rate) / 100
Effective Margin Rate QZFMARG	# of Business Days * Margin Rate /number of days in year for Interest Basis Code
Simple Margin Accrued Interest QZMRGACL	((Effective Margin Rate * Unpaid Principal Balance) / 100)/# of Business Days
Effective Spread Adjustment Rate QZFSPADJ	# of Business Days * Spread Adjustment Rate / number of days in year for Interest Basis Code
Spread Adjustment Accrued Interest QZSPRACL	((Effective Spread Adjustment Rate * Unpaid Principal Balance) / 100)/# of Business Days
Total Accrued Interest on Compounding Rate, Margin & Spread Adjustment	(Simple Margin Accrued Interest * # of Business Days) + Compounded Rate Accrued Interest + (Spread Adjustment Accrued Interest * # of Business Days)
Daily Compounded Rate Accrued Interest	(Compounded Rate Accrued Interest - Compounded Rate Accrued Interest of Prior Day)/# of Business Days
Total Daily Accrued Interest QZDLYTOT	Simple Margin Accrued Interest + Spread Adjustment Accrued Interest + Daily Compounded Rate Accrued Interest

Compounding the Balance – Rate 2 Calculations

Result	Calculations
Effective Rate **QZEFFRT**	# of Business Days * ((Interest Rate less the margin less the spread adjustment) /number of days in year for interest basis code)
Compounded Rate Accrued Interest **QZINDACL**	(Unpaid Principal Balance *(Effective Rate/100)) + ((1+ (Effective Rate/100)) * Accrued Interest of Prior Day)
Effective Margin Rate **QZFMARG**	(# of Business Days * Margin Rate) / number of days in year for interest basis code
Simple Margin Accrued Interest **QZMRGACL**	((Effective Margin Rate * Unpaid Principal Balance)/100)/* # of Business Days
Effective Spread Adjustment Rate **QZSPRADJ**	(# of Business Days * Spread Adjustment Rate)/number of days in year for Interest Basis Code
Spread Adjustment Accrued Interest **QZSPRACL**	((Effective Spread Adjustment Rate * Unpaid Principal Balance)/100)/# of Business Days
Total Accrued Interest on Compounding Rate, Margin and Spread Adjustment	Compounded Rate Accrued Interest + (Effective Margin Accrued Interest * # of Business Days) + (Effective Spread Adjustment Accrued Interest * # of Business Days)
Daily Compounded Rate Accrued Interest	(Compounded Rate Accrued Interest – Compounded Rate Accrued Interest of Prior Day)/# of Business Days
Total Daily Accrued Interest **QZDLYTOT**	Simple Margin Accrued Interest + Spread Adjustment Accrued Interest + Daily Compounded Rate Accrued Interest

SOFR Compounding in Arrears

Business Calendar Logic

- For normal processing (Monday through Thursday without any holidays) the # of business days would be '1'

- For processing over a weekend (Friday through Sunday) the # of business days would be '3'

- The # of business days is adjusted for holidays (based on the Calendar you identify to be used for SOFR Compounding in Arrears). For example, if you had a Monday holiday the # of days on Friday would be 4 (processing for Friday through Monday).

SOFR Compounding in Arrears

Zero Interest Rate or Negative Interest Rate

- **If the All-in-Rate is Zero:**
  - Interest, Compounded Interest, Margin Interest and Spread Adjustment Interest will all be Zero

- **If the Calculated Index Rate is a negative number:**
  - The Compounded Interest will be calculated using the negative Calculated Index Rate
  - The Margin and Spread Adjustment Interest will be calculated (simple interest)
  - The Total Interest will be calculated: Total Interest = Compounded Interest + Margin Interest + Spread Adjustment Interest
    - If the Total Interest is a positive number: the Interest amounts calculated will be used.
    - If the Total Interest is a negative number: the Total Interest, Compounded Interest, Margin Interest and Spread Adjustment Interest will all be set to zero

SOFR Compounding in Arrears

Floors

- The information for Floor applies to loans using SOFR Compounding in Arrears that have a Margin and Spread Adjustment (a loan that transition from LIBOR to SOFR)

- If there is a Floor for the loan, the Floor (from the loan agreement) plus the Margin would be entered into the Floor field in the ARM record (the Spread would not be included).

- If the ARM Floor is not zero, AND there is no Floor Expiration Date OR the Floor Expiration Date has not expired, Calculate the 'SOFR Floor
  - Floor minus Margin minus Spread = calculated SOFR FLOOR

- INDEX equal to the 'higher' of the calculated SOFR Floor or the INDEX

SOFR Compounding in Arrears

Ceilings

- The information for the ceiling applies to loans using Compounding in Arrears with a Margin and Spread Adjustment (a loan that transition form LIBOR to SOFR)

- If the ARM Ceiling is not zero, AND there is no Ceiling Expiration Date OR the Ceiling Expiration Date has not expired, Calculate the 'SOFR Ceiling'
  - Ceiling minus Margin minus Spread = calculated SOFR Ceiling

- Set INDEX equal to the 'lower' of the calculated SOFR Ceiling or the INDEX calculated at this point

SOFR Compounding in Arrears

Deferred Revenue and Expense

- The Level Yield Calculation has been modified to calculate the Effective Interest Rate for deferred items as follows:
  - Current Interest Rate from the PARM record less the Margin (Interest Rate Margin % or Margin #1 %) and less the Spread Adjustment (Margin #2 %) if applicable.
  - The Effective Rate is then used to calculate the Compounded Rate Accrued Interest using either the Compounding the Rate or Compounding the Balance methods.
  - The system then adds the Compounded Rate Accrued Interest to the Simple Margin Accrued Interest and the Spread Adjustment Accrued Interest to arrive at the Total Accrued Interest

SOFR Compounding in Arrears

Backdated Rates

GLOBAL RATE CHANGE BY INDEX

- The Index used to calculate the Effective Rate will be the New Interest Rate % minus the Interest Rate Margin%, minus the Margin #1% and minus the Margin #2 %.
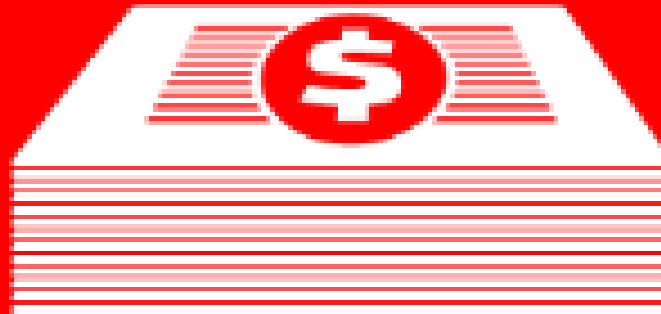
INDIVIDUAL RATE CHANGE BY ACCOUNT

- The New Interest Rate % entered should be the All-in-Rate inclusive of the Index, Margin, and Spread Adjustment.

- The Individual Rate Change program will take the new interest rate % that was entered, subtract the Margin and Spread Adjustment and that will be used as the Index to calculate the Effective Rate

SOFR Compounding in Arrears

Calculating Service Fee, Guarantee Fee and Net Yield

- The Daily Net Yield Amount or Net Yield Per Diem (PIQNYAMT) will be calculated using the Daily Interest calculated for the loan (PCMPNDSOFR/QZDLYTOT) multiplied the Investor's Percentage Owned (PIMST/IMPP), less the per diem for the Service Fee (PIDBNR/IQSRVAMT) and the per diem for the Guarantee Fee (PIDBNR/IQGFEEAMT).

- At the end of the period the Net Yield, Service Fee, and Guarantee Fees will be equal to the sum of the per diems in PIDBNR records for the Loan/Investor for that remittance period.

Compounding SOFR Interest Widget

Compounding SOFR Interest

Compounding SOFR Interest

- The first page of the application is the loan search page; this is the same loan search used in many other web applications. When a loan is selected the user will be redirected to the Compounding SOFR Interest page.

180080101 [Search]

Search

Loan Search Results

Loan Number	Associated Name	Monthly Payment	Current Principal Balance ▲	Loan Name	Active Status	Name ID	MCA #	Credit Facility #
180080101	Emmerich Inc	0.00	10,000,000.00	SOFR Rate 1 plus margin Independent Accr	Y	624	0	0

| | RWD | SOFRKP | 19E | SD: 05/02/2019 | 09/25/2020 | |

Compounding SOFR Interest

- Click on the loan you want to view
- Use the Review Date From and Review Date To fields to filter the Result Set to your period of interest

Cancel	Select SOFR Calendar		

Filter Results

Loan Number   180080101
Review Date From 04/28/2019   Review Date To 05/01/2019

Review Date ▲	Number of Days	Adjustable Method	Index Description
04/28/2019	3	STANDARD COMPOUND %1 SIMP MARG (6)	SH
04/29/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH
04/30/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH
05/01/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH

Compounding SOFR Interest

- Selecting a row in the results grid displays the Compounding Interest Detail outlining the components of the calculation for that day

04/29/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH
04/30/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH
05/01/2019	1	STANDARD COMPOUND %1 SIMP MARG (6)	SH

Compounding Interest Detail

Loan Number	180080101	Review Date	04/30/2019		
Number of Days	1	Index Description	SH	Adjustable Method	STANDARD COMPOUND %1 SIMP MARG (6)
Interest Basis Code	B66	Index	2.76	Margin	0.5 Spread Adjustment
Effective Rate	0.00766666666667	Effective Margin	0.00138888888889	Effective Spread Adjustment	0
Compounded Rate	0.20636514767942	Scheduled Balance	10,000,000.00		
Index Accrual Amount	20636.514767942284	Margin Accrual Amount	138.88888888888889	Spread Adjustment Accrual Amount	0
Daily Compounded Accrued Interest	768.19	Total Daily Compounded Accrued Interest	907.08		

Compounding SOFR Interest

SOFR CALENDAR

- The Select SOFR Calendar button at the top of the page, opens a dialog box allowing the user with appropriate security to select the business calendar to be associated with SOFR Compounding in Arrears.

- At least one record is required in PSOFRCAL to correctly reference holidays when compounding

NOTE: The ARRC recommends the use of the SIFMA calendar in conjunction with SOFR indices. The holidays referenced in the SIFMA calendar can be found at https://www.sifma.org/resources/general/holiday-schedule/. U

Pending Adjustable Loan Changes

Changes to the Pending ARM Change File

- ◦ Modifications to PARMX file to add fields that may be required to update Adjustable Rate loans
- ◦ New Portal Widget, Adjustable Loan, to view Pending Adjustable Loan detail
- ◦ New MaTi Template for uploading PARMX values in bulk

Fields added to PARMX can only be viewed in the Adjustable Loan Widget

- ◦ 41 fields have been added

Adjustable Loan Widget

Adjustable Loan Widget

Accessed from the Portal, the new widget opens with a Search screen where users can search and select the appropriate loan to view, add, or update Pending Adjustable Loan Changes by clicking on the appropriate record.

750081001 [Search]

Search

Loan Search Results

Loan Number	Associated Name	Monthly Payment	Current Principal Balance	Loan Name	Active Status	Name ID	MCA #	Credit Facility #
750081001	Fairlane Realty	15,000.00	2,075,118.79	IRP neg am	Y	108	0	0

| | RWD | DEVDAT19F | 19F | SD: 01/01/2019 | 12/10/2020 | |

A new window displays Pending Adjustable Loan Changes for the selected loan by Effective Date.

Search » Pending Adjustable Loan List - 750081001

Pending Adjustable Loan Changes

[Cancel] [New]

Loan # 750081001   Adjustable Method FIXED % INCREASE (C)   Monthly or Daily Review M

Effective Date	Status	Adjustable Loan Description	Rate Change Frequency	Original Index/DIAL Base %	New Interest Rate %	Index Description	Date Imported from Mapping Tool
01/05/2019		LIBOR 30 DAY (LD)	0		12.2500000000000	COST INDEX (C1)	

| | RWD | DEVDAT19F | 19F | SD: 01/01/2019 | 12/10/2020 | |

Pending Adjustable Loan Changes

If the loan does not have an adjustable loan information record an error message displays above the search results.

Pending Adjustable Loan Changes

If the loan does not have any pending adjustable loan changes entered the search results displays a message 'No data available in table.'

Pending Adjustable Loan Changes

Clicking the appropriate record in the Pending Adjustable Loan Changes window opens the Pending Adjustable Loan Detail window

Pending Adjustable Loan Changes Detail Screen

Appropriate security is needed to Create a new change record, modify an existing record, or delete an existing change record.

This page is broken into 6 different sections

- Effective Date & Adjustable Loan Description,
- Loan: Rate Information
- Loan: P&I Information
- Constants & Constraints: Rate Information
- Constants & Constraints: P&I Information
- Pending Adjustable Loan Change Errors.

Pending Adjustable Loan Changes

Section 1 of the Pending Loan Change Detail page

The top section or header of the Pending Adjustable Loan Change Detail page displays the Loan Number, Adjustable Method, and Monthly or Daily Review in the PARM file as read only.

The Effective Date & Adjustable Loan Description display below the blue bar labeled as such. They include the Status of the Pending Adjustable Change Detail record as well as the Date Imported and User if the information in the record was uploaded via the Mapping Tool.

Loan # 80043213   Adjustable Method STANDARD (USED FOR T-BILL IDX) (A)   Monthly or Daily Review M

Effective Date & Adjustable Loan Description

Status	Date Imported from Mapping Tool		Mapping Tool User	
Effective Date 12/11/2020	Adjustable Method	STANDARD (USED FOR T-BILL IDX ∨	Adjustable Loan Description	DAILY REVIEW (DY) ∨

Pending Adjustable Loan Changes

Sections 2 & 3 of the Pending Adjustable Loan Changes page

Loan: Rate Information and Loan: P&I Information sections are used to apply future changes to the fields in the corresponding sections on the Adjustable Loan Information window.

Loan: Rate Information

Monthly or Daily Review	DAILY (D)	Rate Chg Freq	0	
Look Back Method	--	✓ Look Back Days For Rate Reviews	0	✓ Business Calendar	--
Business Calendar Options	--	✓ Use Business Calendar: Review Date	--	Rate Review Date	
✓ Use Business Calendar: Change Date	--	Rate Change Date		Rate Chg Anniversary Date	04/15/2034
Original Index/DIAL Base %	0.0300000000000	New Interest Rate %	12.2500000000000		
Index Description	COST INDEX (C1)	✓ Maximum # Of Rate Reviews	0		

Loan: P&I Payment Information

P&I Change Freq	9	✓ P&I Change Date		✓ P&I Re-Amortization Freq	0
✓ P&I Re-Amort Date		✓ New P&I Payment	0.00	✓ P&I Amortization "To" Date	

Pending Adjustable Loan Changes

Sections 4 & 5 of the Pending Adjustable Loan Changes page

The Constants & Constraints: Rate Information and Constants & Constraints: P&I Information are used to apply future changes to the fields in the corresponding sections on the Constants & Constraints window.

Constants & Constraints: Rate Information

✓ Interest Rate Margin (+ or -)	0.0000000000000	✓ Rate Rounding Method	--	✓ Rate Rounding Factor	0.0000000000000
✓ Index Rounding Method	--	☐ Index Rounding Factor %	0.0000000000000		
☐ Rate Floor & Ceiling Exp Date	12/03/2020	☐ Interest Rate Floor %	3.0009000000000	☐ Interest Rate Ceiling %	20.0000000000000
✓ Rate Review Increase Cap %	0.0000000000000	✓ Rate Review Decrease Cap %	0.0000000000000	✓ Minimum Rate Adj Allowed	0.0000000000000
✓ Period Rate Cap %	0.0000000000000				
✓ Math Operator #1	--	✓ Margin #1 %	0.0000000000000		
✓ Math Operator #2	--	✓ Margin/Spread #2 %	0.0000000000000		

Constants & Constraints: P&I Payment Information

✓ P&I Payment Method	0	✓ P&I Payment Cap Expiration Date	
✓ P&I Increase Cap %	0.0000000000000	✓ P&I Decrease Cap %	0.0000000000000
✓ P&I Increase Cap $	0	✓ P&I Decrease Cap $	0
✓ Round P&I Payment	--	✓ Interest Basis Code	--

Pending Adjustable Loan Changes

Sections 6 of the Pending Adjustable Loan Changes page

The Pending Adjustable Loan Change Errors display the Loan Number, Effective Date, and Error messages found in relation to any Pending Adjustable Loan Change records on the loan. The errors displayed may refer to the record being viewed or any other Pending Adjustable Loan Changes scheduled for the loan.

Pending Adjustable Loan Change Errors

Loan	Effective Date in Error	Error Message
750081001	01/05/2019	P&I change frequency must be zero
750081001	01/05/2019	P&I Payment Change Date is required if P&I Payment Change Frequency is not zero
750081001	01/05/2019	P&I Amort To Date is required if Payment Chg Freq is not 0 and account is a Balloon Loan

When a record is changed, added, or deleted, Strategy calls the edit program. If there are still errors, then the error message will display on the Pending Adjustable Changes page if OK was clicked. If Apply was clicked to remain on the existing Pending Adjustable Loan Change Detail page, the Pending Adjustable Loan Change Errors grid at the bottom of the page will be repopulated with the errors.

Pending Adjustable Loan Changes

Day End Processing

- Day end runs on the effective date of the PARMX record

- If there is a "Y" in a checkbox field, the corresponding Adjustable Loan field (PARM/PARMH) will be updated with a zero or blank (depending on the data type).

- Any other numeric, date, or alphanumeric fields will be updated as necessary based on the values entered in PARMX.

- The day end program (MB151A) updates a status field in PARMX with an "E" or a "U".
  ◦ If there were no errors and the update took place the status will become a "U" (updated).
  ◦ If there were errors and the update did not take place the status will become an "E" (error).

New Mapping Tool Template

New changes to the Mapping Tool (MaTi)

- New Mapping Tool for the Pending Adjustable Loan Changes

- Ability to delete records uploaded via the Mapping Tool that have a blank record Status

New Mapping Tool Template

A new Mapping Tool template is available to assist with loading Pending Adjustable Loan Changes.

New Mapping Tool Template

- Pending Adjustable Loan Changes is an insert only template containing fields from PARMX.

- Required fields are bolded and outlined in Blue. (Loan Number and Effective Date)

- All fields that are to change on the same Effective Date should be entered in the same record (or spreadsheet row if uploading via MaTi). There can only be one Pending Adjustable Loan Changes record for a loan for that Effective Date.

- Date fields must be formatted as a date in the spreadsheet (mm/dd/ccyy or mm/dd/yy)

New Mapping Tool Template

Deleting Records Imported with MaTi

- Ability delete records uploaded via the Mapping Tool that have a blank record Status

- Users can access the group delete functionality from the Pending Adjustable Loan Change Detail in the Adjustable Loan widget.

- A Delete MT Import Group button appears on the Pending Adjustable Loan Change Detail page.

Search » Pending Adjustable Loan List - 80043216 » Pending Adjustable Loan Detail - 11/20/2020

Pending Adjustable Loan Change Detail

| Ok | Apply | Cancel | Delete | Delete MT Import Group |

Delete MT Import Group

The Delete MT Import Group button will be available for use if:

- The User has security to the feature

- The active Pending Adjustable Loan Change Detail record was uploaded via the Mapping Tool

- There is no lock on the page.

Deleting Imported Records with Blank Record Status

Delete MT Import Group

Delete by Mapping Tool Import Date ✕

Date Imported from Mapping Tool 11/20/2020 ▾   Mapping Tool User ALL ▾

*Warning: This will delete all Pending Adjustable Loan records created from the Mapping Tool will the selected date and user
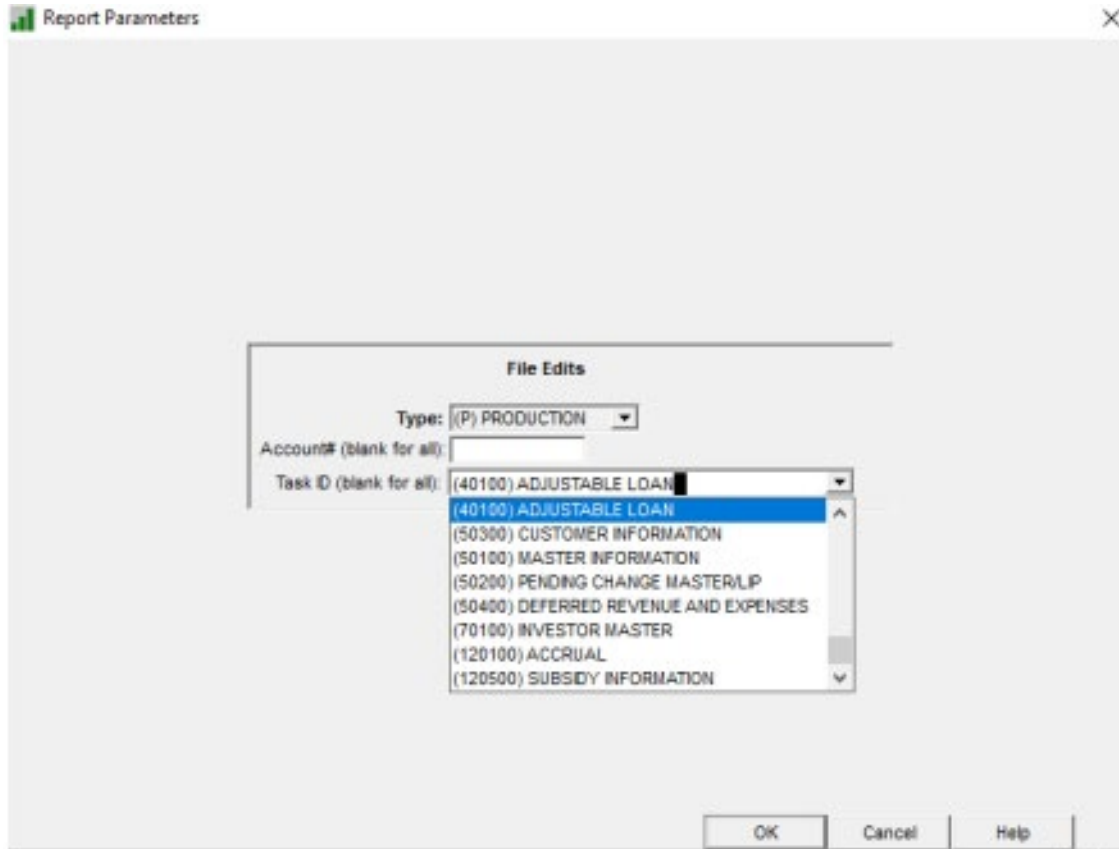
Ok   Cancel

This window allows users with appropriate authority to define the group of records to be deleted using the Date Imported from Mapping Tool and Mapping Tool User

When the Mapping Tool User is set to 'ALL', Strategy will delete all PARMX records imported by the Mapping Tool on the selected Mapping Tool Import Date, that have a blank record Status

New file Edits

Adjustable Loan Edits and Master File Edits (new changes)

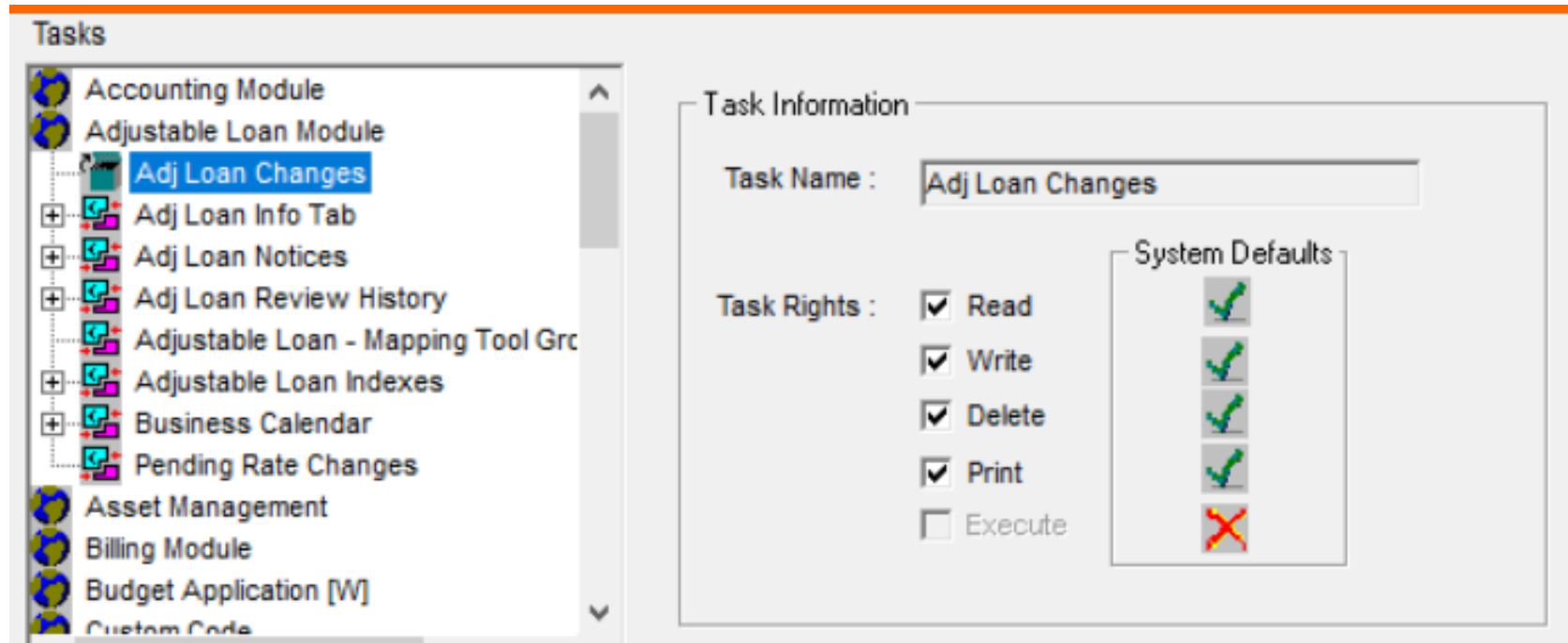The edits are run from Loan Entry before a Loan is passed

Can be run over the Production version of the files from the Reports window.

Can Add CGR100CAM to the day end job stream right before CMB401Z1. This will generate the Adjustable Loan and Master Info Edit Reports in day end for daily review.
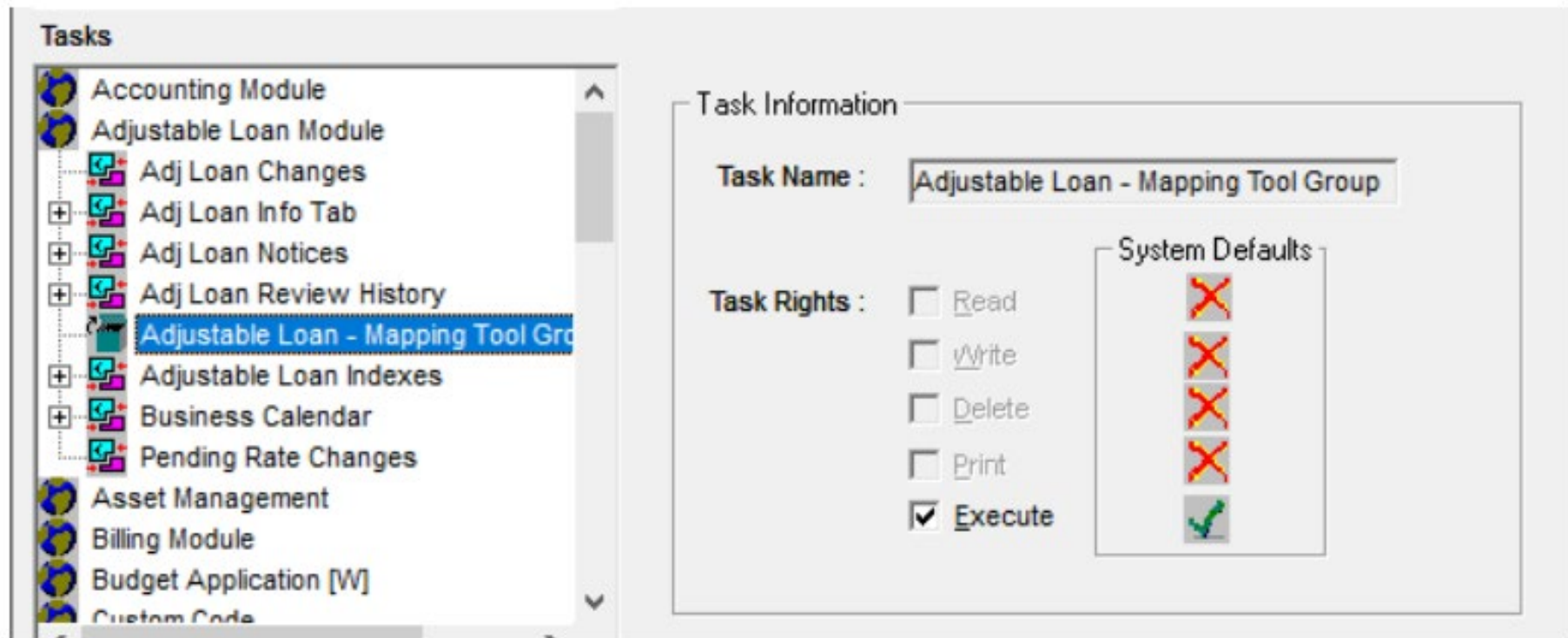
Available in Release 20

Security Changes

- Users with authority to create Adjustable Loan Changes can access the Adjustable Loan widget to view Pending Adjustable Loan Changes.

Security Changes

- Delete MT Import Groups has additional security.
  ◦ Adjustable Loan – Mapping Tool Group Delete (W)

Transitioning to SOFR

Loans Transitioning to SOFR

Preliminary activities

- Create New SOFR values Associated with Adjustable Loans
  - Used to delineate the types of SOFR products and the SOFR index values
    - ARM Type Code or Adjustable Loan Description
    - Adjustable Loan Indexes
- Review Formula Methods
  - Option P used for *spread adjustment*

Loans Transitioning to SOFR

Adjustable Methods To accommodate the Spread Adjustments

Term SOFR	Adjustable Method P	Margin 1 = Margin Margin 2 = Spread Adjustment
Simple SOFR in Arrears	Adjustable Method P	Margin 1 = Margin Margin 2 = Spread Adjustment
SOFR Compounded in Advance	Adjustable Method P	Margin 1 = Margin Margin 2 = Spread adjustment
Compounded SOFR in Arrears	Adjustable Method T	Compounding the Rate 2 Ops (margins)
Compounded SOFR in Arrears	Adjustable Method 3	Compounding the Balance 2 Ops (Margins)

Loans Transitioning to SOFR

- Daily Simple Avg SOFR in Arrears with Principal
- Compounding in Arrears with Principal
  - If Payment Type currently is a 'P' on STRATEGY must change to 'G'
    - Allows for Negative Amortization
    - Neg Am % Allowed

Loans Transitioning to SOFR

◦ Use Business Days for review

◦ STRATEGY will recalculate the Review Date based on the Lookback Days

Adjustable Method – Two Ops (P)

Use Math Operator #1 and Margin #1% for Margin

Use Math Operator #2 and Margin #2% for Spread Adjustment

Loans Transitioning to SOFR

Transitioning an existing loan to SOFR Compounding in Arrears with Lookback Days
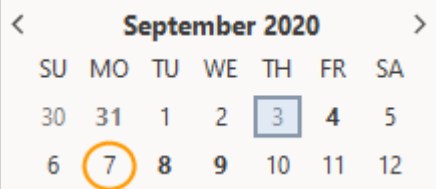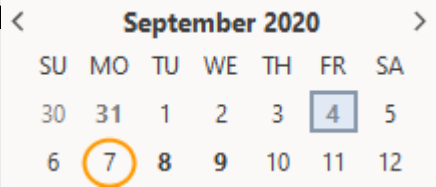
- Example Loan: Currently an adjustable loan with a payment anniversary date of the 10th of the month. The loan is set to transition to SOFR Compounding in Arrears on 9/8/2020 using 2 Lookback Days and a Business Calendar for the Rate Review Date and the Rate Change Date.

Using 2 Lookback Days with a standard US Business Calendar the loan will have its first SOFR review on the 3rd of September. Monday, September 7th is a Holiday. The loan will transition to SOFR on 9/8/2020. However, with the lookback days, weekend, and holiday the first SOFR Rate Review will take place on September 3rd.

So, from September 3rd through September 7th, the loan will commence with Daily SOFR Compounding in Arrears reviews, while continuing all other processing in Strategy as a LIBOR loan. Interest is calculated differently for LIBOR vs. SOFR Compounding in Arrears.

◄	September 2020					►
SU	MO	TU	WE	TH	FR	SA
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

When:	What to do:
9/3 Before Day end Day end will run for 9/3.	Update the ARM record as follows: • Change to Daily Review, Rate Change Frequency 1 • Rate Change Date should be 9/8. With 2 lookback days this will calculate a Review Date of 9/3 (because of weekend and Monday holiday). • Change Index Code to SOFR Index Code • Update Margin for SOFR Margin
	Note: If the loan is going to require both a Margin and a Spread Adjustment and it is not currently a Method P (Two Ops), make the Adjustable Method P (Two Ops) in order to enter the Margin (Margin 1%) and Spread Adjustment (Margin 2%). <u>DO NOT</u> change the ARM record to have an Adjustable Method that is SOFR Compounding in Arrears (T or 3).
	Verify that the ARM history record (Review Date 9/3, Rate Change Date 9/8) has the correct New Index and New Rate for SOFR. If not correct, update them in the ARM record and ARM history record.
	Verify that the ARM history record (Review Date 9/4, Rate Change Date 9/8) has the correct New Index and New Rate for SOFR. If they are not correct, update them in the ARM record and ARM history record.

Transitioning an existing loan to SOFR Compounding in Arrears with Lookback Days

For purposes of this example, the steps consider the example of a loan transitioning where the new Index takes effect on 9/8 with a rate review happening on 9/3

When:	What to do:
9/8 Before Day end	SOFR Compounding in Arrears is going to go into effect. Update the Adjustable Method to the correct SOFR Compounding in Arrears Method based on the rate calculation being used. • Margin and Spread Adjustment (T or 3) • Simple Margin (6 or 7)
September 2020 SU MO TU WE TH FR SA 30 31 1 2 3 4 5 6 (7) [8] 9 10 11 12	The Rate Review will occur during day end and creates the ARM History record that will have the SOFR Method: Rate Review Date 9/8 and Rate Change Date 9/10.
Day end will run for 9/8.	The accrual for 9/8 will be calculated using the new interest calculation for compounding in arrears (and the rate, margin, spread adjustment (if applicable) from the ARM History record with a Review Date of 9/3 and a Rate Change date of 9/8.
Day end will run for 9/9 **September 2020** SU MO TU WE TH FR SA 30 31 1 2 3 4 5 6 (7) 8 [9] 10 11 12	Review will happen and create ARM History record that will have the SOFR Method: Review Date 9/9 Rate Change Date 9/11 The accrual for 9/9 will be calculated using the new interest calculation for compounding in arrears (and the rate, margin, spread (if applicable) from the ARM history record with a Review Date of 9/4 and a Rate Change Date of 9/9. The loan will continue to review daily with the Review Date being the 2 Business Days ahead of the Rate Change Date

Transitioning an existing loan to SOFR Compounding in Arrears with Lookback days

Questions