

# **Use Cases**

SOFR Use Cases Processing Daily Simple SOFR and SOFR Term Rate Loans



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The contents of this document is intended for the use of our customers only and is not intended for distribution to those individuals who do not have a need to know to do their job.

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#### Use Case - Daily Reviewable Loan using Daily Simple SOFR Index with Margin

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today. When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a daily reviewable, interest only loan referencing the Daily Simple SOFR Rate.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses A66 - Interest Basis (Actual/365) A66 - Interest Basis (Actual/365)

Loan is Interest Only (I), and Accrues To the Due Interest Only

Payments are due on the first

Index: (Daily Simple Interest SOFR) 4.00% 12/1/2018 first day - of month

Margin: 0.50%

Spread Adjustment: N/A

Daily Reviewable Loan

Review Frequency 1 (Every day)

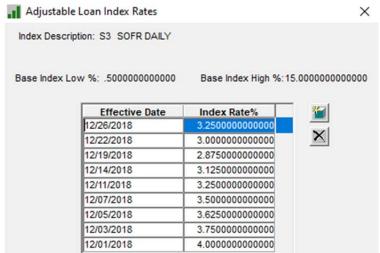
No Lookback

No Business Calendar

Floor%: 3.50%
Ceiling%: 6.00%
Loan cycled through the month of December

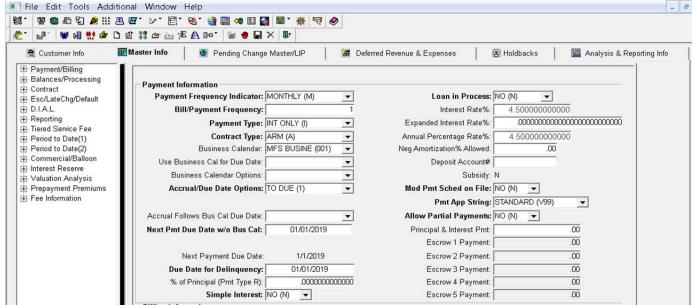


#### Index Values used in this scenario are as follows:

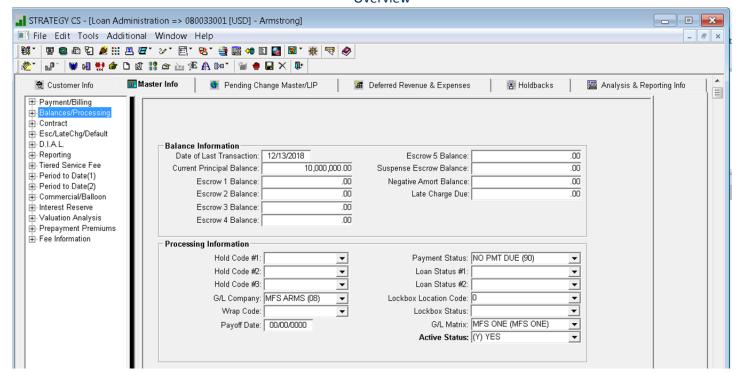


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

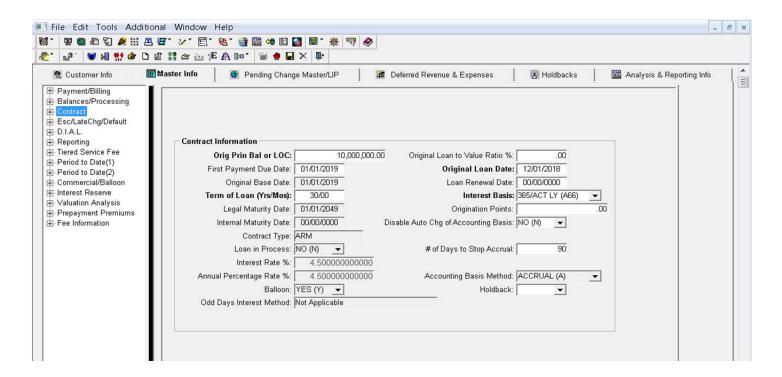
#### Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I))





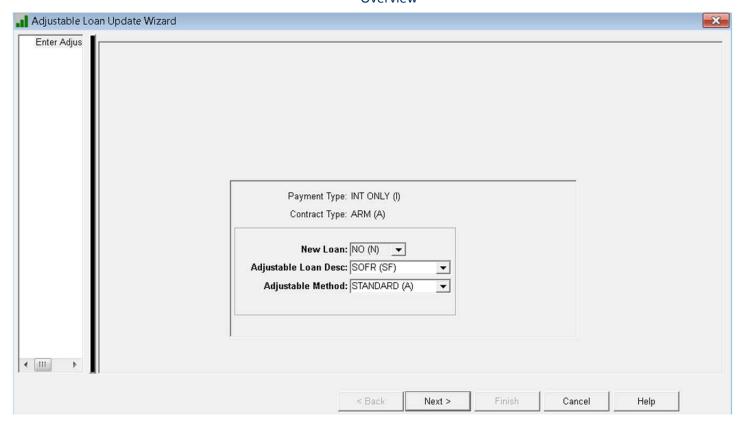


Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)



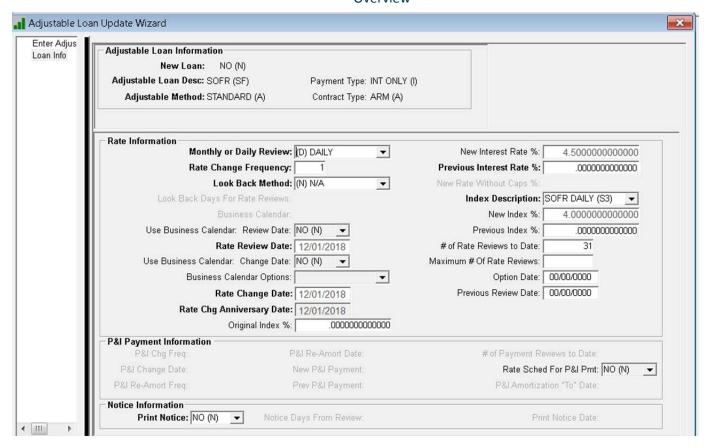
Loan Administration>Master Info>Contract - Interest Basis Code





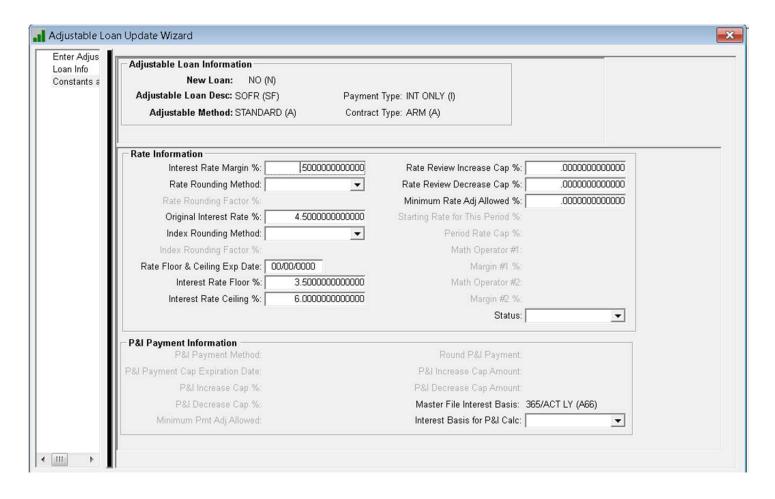
Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Daily Reviewable, SOFR Loan with Floor), Adjustable Method (Standard (A)).





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info - Monthly or Daily Review ((D) Daily), Rate Change Frequency (1), Look Back Method ((N) N/A), Index Description (Your Daily Simple SOFR Index)





Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Margin% (Enter Margin using), Floor (Enter Rate Floor Using).



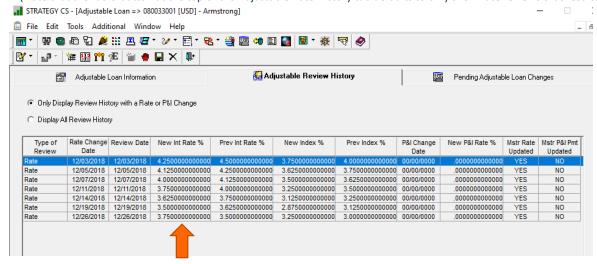
Α	В	С	D	E	F	G	Н	I
Interest Basis A66 Simple SOFR Daily Floor 3.5%								
Margin .50%							Interest Rate	Calculated Interest
	Date	#days	Balance	Index	Margin	Basis	(E+F)	((D*H)*C)/G
First Cycle with rate changes	12/1/2018	1	10,000,000.00	4.00000%	0.50000%	365	4.5000%	1,232.88
	12/2/2018	1	10,000,000.00	4.00000%	0.50000%	365	4.5000%	1,232.88
Rate Change	12/3/2018	1	10,000,000.00	3.75000%	0.50000%	365	4.2500%	1,164.38
	12/4/2018	1	10,000,000.00	3.75000%	0.50000%	365	4.2500%	1,164.38
Rate Change	12/5/2018	1	10,000,000.00	3.62500%	0.50000%	365	4.1250%	1,130.14
	12/6/2018	1	10,000,000.00	3.62500%	0.50000%	365	4.1250%	1,130.14
Rate Change	12/7/2018	1	10,000,000.00	3.50000%	0.50000%	365	4.0000%	1,095.89
	12/8/2018	1	10,000,000.00	3.50000%	0.50000%	365	4.0000%	1,095.89
	12/9/2018	1	10,000,000.00	3.50000%	0.50000%	365	4.0000%	1,095.89
	12/10/2018	1	10,000,000.00	3.50000%	0.50000%	365	4.0000%	1,095.89
Rate Change	12/11/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/12/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/13/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
Rate Change	12/14/2018	1	10,000,000.00	3.12500%	0.50000%	365	3.6250%	993.15
	12/15/2018	1	10,000,000.00	3.12500%	0.50000%	365	3.6250%	993.15
	12/16/2018	1	10,000,000.00	3.12500%	0.50000%	365	3.6250%	993.15
	12/17/2018	1	10,000,000.00	3.12500%	0.50000%	365	3.6250%	993.15
	12/18/2018	1	10,000,000.00	3.12500%	0.50000%	365	3.6250%	993.15
Rate Change - Floor Reached	12/19/2018	1	10,000,000.00	2.87500%	0.50000%	365	3.5000%	958.90
Floor Reached	12/20/2018	1	10,000,000.00	2.87500%	0.50000%	365	3.5000%	958.90
Floor Reached	12/21/2018	1	10,000,000.00	2.87500%	0.50000%	365	3.5000%	958.90
Rate Change	12/22/2018	1	10,000,000.00	3.00000%	0.50000%	365	3.5000%	958.90
	12/23/2018	1	10,000,000.00	3.00000%	0.50000%	365	3.5000%	958.90
	12/24/2018	1	10,000,000.00	3.00000%	0.50000%	365	3.5000%	958.90
	12/25/2018	1	10,000,000.00	3.00000%	0.50000%	365	3.5000%	958.90
Rate Change	12/26/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/27/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/28/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/29/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/30/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
	12/31/2018	1	10,000,000.00	3.25000%	0.50000%	365	3.7500%	1,027.40
1/1/19 receivable								32,363.01



Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

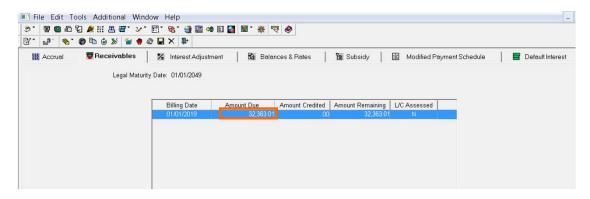
Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed.

(Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Adjustable Rate Module>Adjustable Review History Tab>

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the first of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)



### Use Case - Daily Reviewable Loan using Daily Simple SOFR Index Curtailment Posted During Month

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a daily reviewable, interest only loan referencing the Daily Simple SOFR Rate. A curtailment is processed on the 8th of the month.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses B66 Accrual Actual/360

Loan is Interest Only (I), and Accrues To the Due Date. Interest Only

Accrual/Due Date Options - Independent Accrual - 1-31st/ Payments Due on the 5th.

Index: (Daily Simple Interest SOFR) 3.75% 12/1/2018 first day of scenario - first review date

Margin: 1.50%

Spread Adjustment: Daily Reviewable Loan

Review Frequency 1 (Every day)

No Lookback

No Business Calendar

Floor%: Ceiling%:

Loan cycled through the month of December Curtailment processed on 12/8 for \$200,000.00

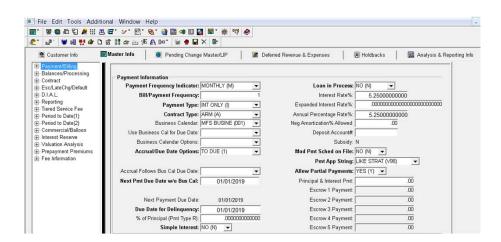


Index Values used in this scenario are as follows:

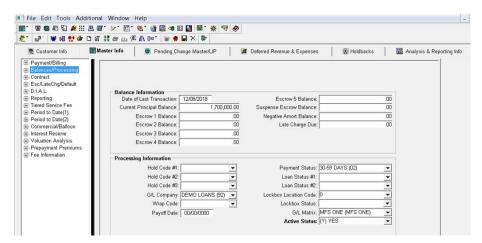


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

Adjustable Loan Module>Tools>Indexes>Select Index for Daily Simple SOFR>Right Click>Index Rates

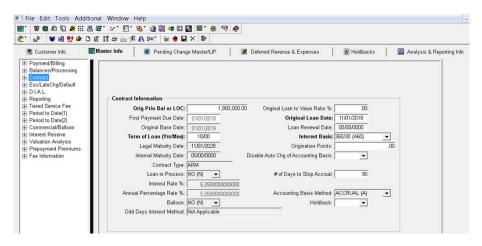


Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I)) Next Pmt Due Date is 01/01/2019

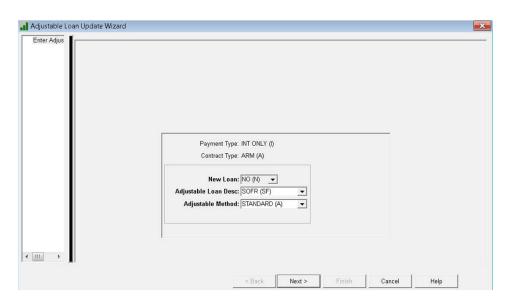


Loan Administration>Master Info>Balances/Processing - Shows last transaction date and new balance after curtailment on 12/8/2018; Active Status ((Y) Yes)



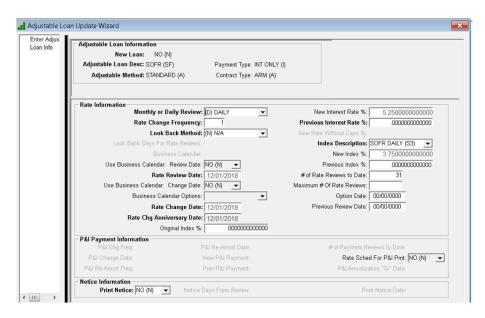


Loan Administration>Master Info>Contract - Interest Basis Code

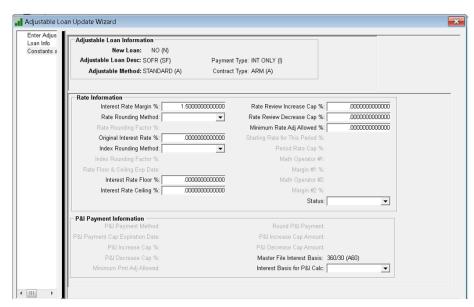


Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Daily Reviewable, SOFR Loan with Floor), Adjustable Method (Standard (A)).





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info - Monthly or Daily Review ((D) Daily), Rate Change Frequency (1), Look Back Method ((N) N/A), Index Description (Your Daily Simple SOFR Index)



Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Margin% (Enter Margin using)



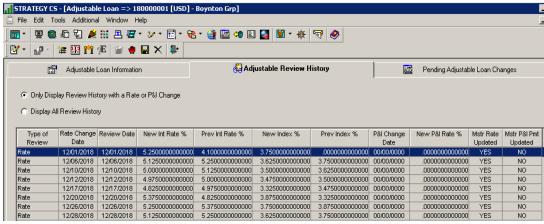
Α	В	С	D	Е	F	G	Н	I
Loan Amount \$1,900,000.00								
Interest Basis A60								
Simple SOFR Daily								
Margin 1.50%							Interest Rate	Calculated Interest
Curtailment Posted 12/8/2020	Date	#days	Balance	Index	Margin	Basis	E+F	((D*H)*C)/360
First Cycle with rate changes	Saturday, December 01, 2018	1	1,900,000.00	3.75000%	1.50000%	360	5.2500%	277.08
	Sunday, December 02, 2018	1	1,900,000.00	3.75000%	1.50000%	360	5.2500%	277.08
	Monday, December 03, 2018	1	1,900,000.00	3.75000%	1.50000%	360	5.2500%	277.08
	Tuesday, December 04, 2018	1	1,900,000.00	3.75000%	1.50000%	360	5.2500%	277.08
	Wednesday, December 05, 2018	1	1,900,000.00	3.75000%	1.50000%	360	5.2500%	277.08
Rate Change	Thursday, December 06, 2018	1	1,900,000.00	3.62500%	1.50000%	360	5.1250%	270.49
	Friday, December 07, 2018	1	1,900,000.00	3.62500%	1.50000%	360	5.1250%	270.49
\$200,000 Curtailment	Saturday, December 08, 2018	1	1,700,000.00	3.62500%	1.50000%	360	5.1250%	242.01
	Sunday, December 09, 2018	1	1,700,000.00	3.62500%	1.50000%	360	5.1250%	242.01
Rate Change	Monday, December 10, 2018	1	1,700,000.00	3.50000%	1.50000%	360	5.0000%	236.11
	Tuesday, December 11, 2018	1	1,700,000.00	3.50000%	1.50000%	360	5.0000%	236.11
Rate Change	Wednesday, December 12, 2018	1	1,700,000.00	3.47500%	1.50000%	360	4.9750%	234.93
	Thursday, December 13, 2018	1	1,700,000.00	3.47500%	1.50000%	360	4.9750%	234.93
	Friday, December 14, 2018	3	1,700,000.00	3.47500%	1.50000%	360	4.9750%	704.79
	Saturday, December 15, 2018							
	Sunday, December 16, 2018							
Rate Change	Monday, December 17, 2018	1	1,700,000.00	3.32500%	1.50000%	360	4.8250%	227.85
	Tuesday, December 18, 2018	1	1,700,000.00	3.32500%	1.50000%	360	4.8250%	227.85
	Wednesday, December 19, 2018	1	1,700,000.00	3.32500%	1.50000%	360	4.8250%	227.85
Rate Change	Thursday, December 20, 2018	1	1,700,000.00	3.87500%	1.50000%	360	5.3750%	253.82
	Friday, December 21, 2018	3	1,700,000.00	3.87500%	1.50000%	360	5.3750%	761.46
	Saturday, December 22, 2018							
	Sunday, December 23, 2018							
	Monday, December 24, 2018	2	1,700,000.00	3.87500%	1.50000%	360	5.3750%	507.64
	Tuesday, December 25, 2018		, ,					
Rate Change	Wednesday, December 26, 2018	1	1,700,000.00	3.75000%	1.50000%	360	5.2500%	247.92
	Thursday, December 27, 2018	1	1,700,000.00	3.75000%	1.50000%	360	5.2500%	247.92
Rate Change	Friday, December 28, 2018	3	1,700,000.00	3.62500%	1.50000%	360	5.1250%	726.04
	Saturday, December 29, 2018							
	Sunday, December 30, 2018						<u> </u>	
	,						-	
1/1/2019								7,485.63



Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed.

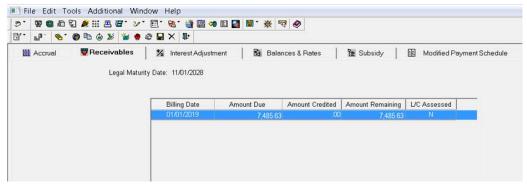
(Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



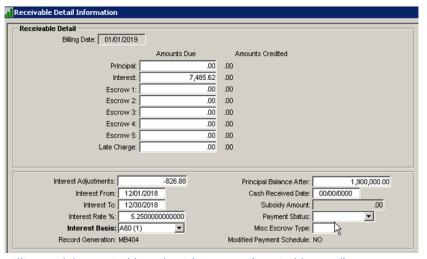


Adjustable Rate Module>Adjustable Review History Tab>

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the first of the next month.



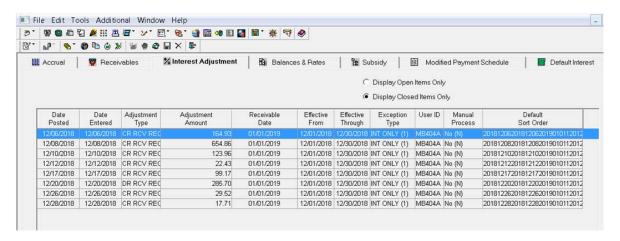
Billing Module>Receivables Tab (Most recent receivable is on top)



Billing Module>Receivables Tab>Right Mouse - (Receivable Detail)



Detail on the Interest Adjustments made to the January 1 receivable based on rate changes and the curtailment can be viewed on the Interest Adjustment tab.



Billing Module>Interest Adjustments



### Use Case - Daily Reviewable Adjustable Loan with Daily Simple SOFR Index Rate, Margin and Spread Adjustment

#### **Overview:**

Daily Reviewable, Interest Only, With Margin and Rate Ceilings and Floors.

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Daily Simple SOFR Rate or the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value for the Index identified on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a daily reviewable, interest only loan referencing the Daily Simple SOFR Rate with a Rate Ceiling and Floor.

The loan has both a Margin and a Spread.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case is illustrated using the loan characteristics below:

Loan Balance: \$10,000,000.00

Loan Uses A66 - Interest Basis (Actual/365) A66 - Interest Basis (Actual/365)

Loan is Interest Only (I), and Accrues To the DucInterest Only

Payments are due on the first 12/1/2018 first day - of month

Index: (Daily Simple Interest SOFR)4.00%Margin:0.50%Spread Adjustment:0.50%

Daily Reviewable Loan

Review Frequency 1 (Every day)

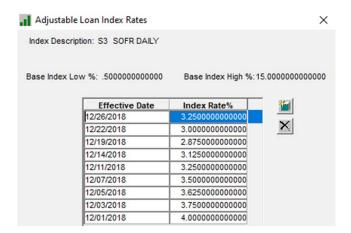
No Lookback

No Business Calendar

Floor%: Ceiling%:

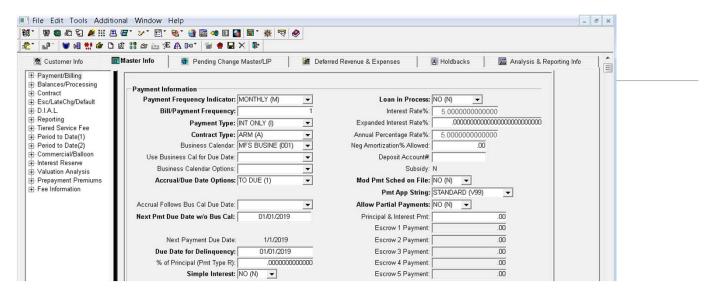
Loan cycled through the month of December





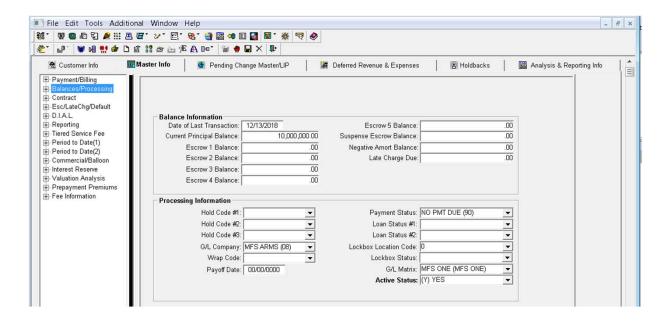
Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

Index Values used in this scenario are as follows:

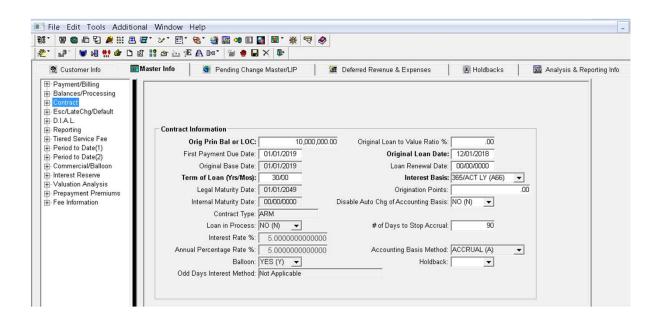


Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I))



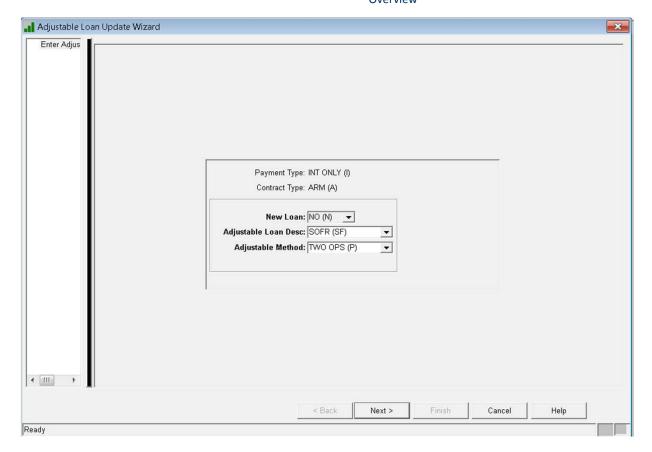


Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)



Loan Administration>Master Info>Contract - Interest Basis Code

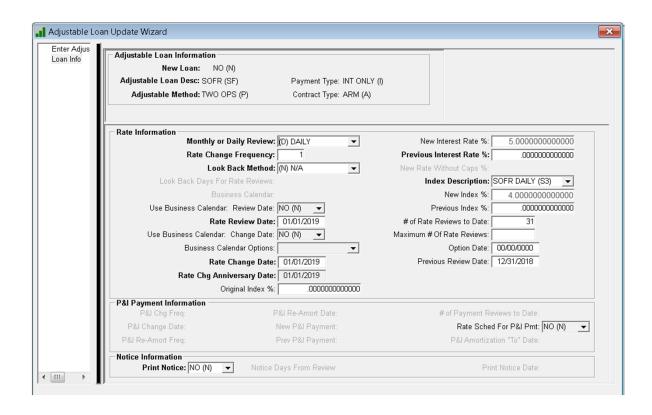




 $Adjustable\ Module > Adjustable\ Loan\ Info > Update\ Info\ -\ Adjustable\ Loan\ Description\ (Your\ definition\ of\ Daily\ Reviewable,\ SOFR$ 

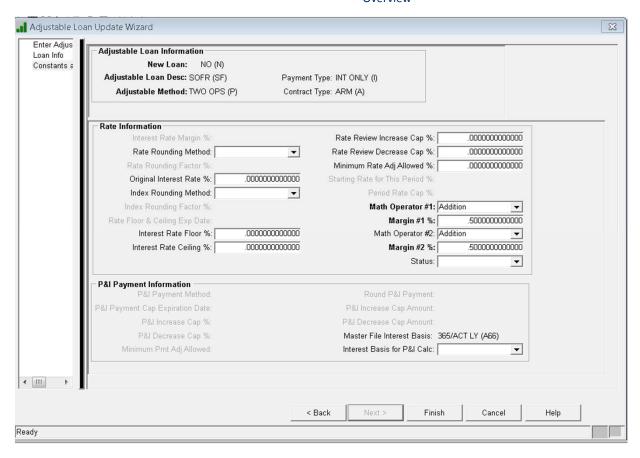
Allows entry of both a Margin and a Spread Adjustment





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info Monthly or Daily Review ((D) Daily), Rate Change Frequency (1), Look Back Method ((N) N/A), Index Description (Your Daily Simple SOFR Index), Rate Review Date (First Day Ioan will review in test)





Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Math Operator#1 - Enter operation to apply Margin - Addition; Margin #1 - Enter the margin on the loan Math Operator #2-Enter operation to apply Spread Adjustment - Addition, Margin #2 - Enter the spread adjustment for the loan.

#### Use Case for Daily Reviewable - SOFR Daily Simple Interest Margin Spread Adjustment



#### **Expected Results**

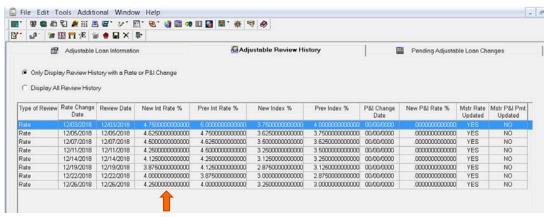
Α	В	С	D	E	ted Results <b>F</b>	G	Н	T.	J
Loan Amount \$10,000,000.00									
Interest Basis A66									
Simple SOFR Daily									
Margin .50% Spread Adjustment .50%					Margin	Spread Adj		Interest Rate	Calculated Interest
Spread Adjustment .50%	Date	#days	Balance	Index	Margin #1	Margin #2	Basis	(E+F+G)	((D*I)*C)/H
First Cycle with rate changes	Saturday, December 01, 2018	1	10,000,000.00	4.00000%	0.50000%	0.50000%	365	5.0000%	1,369.86
	Sunday, December 02, 2018	1	10,000,000.00	4.00000%	0.50000%	0.50000%	365	5.0000%	1,369.86
Rate Change	Monday, December 03, 2018	1	10,000,000.00	3.75000%	0.50000%	0.50000%	365	4.7500%	1,301.37
	Tuesday, December 04, 2018	1	10,000,000.00	3.75000%	0.50000%	0.50000%	365	4.7500%	1,301.37
Rate Change	Wednesday, December 05, 2018	1	10,000,000.00	3.62500%	0.50000%	0.50000%	365	4.6250%	1,267.12
	Thursday, December 06, 2018	1	10,000,000.00	3.62500%	0.50000%	0.50000%	365	4.6250%	1,267.12
Rate Change	Friday, December 07, 2018	1	10,000,000.00	3.50000%	0.50000%	0.50000%	365	4.5000%	1,232.88
	Saturday, December 08, 2018	1	10,000,000.00	3.50000%	0.50000%	0.50000%	365	4.5000%	1,232.88
	Sunday, December 09, 2018	1	10,000,000.00	3.50000%	0.50000%	0.50000%	365	4.5000%	1,232.88
	Monday, December 10, 2018	1	10,000,000.00	3.50000%	0.50000%	0.50000%	365	4.5000%	1,232.88
Rate Change	Tuesday, December 11, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Wednesday, December 12, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Thursday, December 13, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
Rate Change	Friday, December 14, 2018	1	10,000,000.00	3.12500%	0.50000%	0.50000%	365	4.1250%	1,130.14
	Saturday, December 15, 2018	1	10,000,000.00	3.12500%	0.50000%	0.50000%	365	4.1250%	1,130.14
	Sunday, December 16, 2018	1	10,000,000.00	3.12500%	0.50000%	0.50000%	365	4.1250%	1,130.14
	Monday, December 17, 2018	1	10,000,000.00	3.12500%	0.50000%	0.50000%	365	4.1250%	1,130.14
	Tuesday, December 18, 2018	1	10,000,000.00	3.12500%	0.50000%	0.50000%	365	4.1250%	1,130.14
Rate Change - Floor Reached	Wednesday, December 19, 2018	1	10,000,000.00	2.87500%	0.50000%	0.50000%	365	3.8750%	1,061.64
Floor Reached	Thursday, December 20, 2018	1	10,000,000.00	2.87500%	0.50000%	0.50000%	365	3.8750%	1,061.64
Floor Reached	Friday, December 21, 2018	1	10,000,000.00	2.87500%	0.50000%	0.50000%	365	3.8750%	1,061.64
Rate Change	Saturday, December 22, 2018	1	10,000,000.00	3.00000%	0.50000%	0.50000%	365	4.0000%	1,095.89
	Sunday, December 23, 2018	1	10,000,000.00	3.00000%	0.50000%	0.50000%	365	4.0000%	1,095.89
	Monday, December 24, 2018	1	10,000,000.00	3.00000%	0.50000%	0.50000%	365	4.0000%	1,095.89
	Tuesday, December 25, 2018	1	10,000,000.00	3.00000%	0.50000%	0.50000%	365	4.0000%	1,095.89
Rate Change	Wednesday, December 26, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Thursday, December 27, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Friday, December 28, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Saturday, December 29, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Sunday, December 30, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
	Monday, December 31, 2018	1	10,000,000.00	3.25000%	0.50000%	0.50000%	365	4.2500%	1,164.38
1/1/19 receivable								<u> </u>	36,506.85

## Use Case for Daily Reviewable - SOFR Daily Simple Interest Margin Spread Adjustment Expected Results



Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

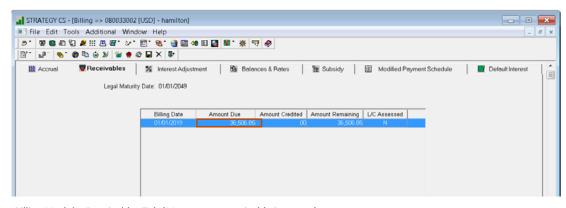
Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed. (Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Rate Module>Adjustable Review History tab.

Adjustable Rate Module>Adjustable Review History Tab>

Total of all interest calculations for the month in column J above should equal the Interest Receivable for the first of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)



#### Use Case - Monthly Reviewable 30 day Compounded in Advance - Margin and Business Calendar

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a monthly reviewable, interest only loan referencing the 30 day Compounded in Advance Index Rate. The Rate Change Date is tied to a Business Calendar.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses A66 - Interest Basis (Actual/365) A66 - Interest Basis (Actual/365)

Loan is Interest Only (I), and Accrues To the Due Interest Only

Payments are due on the first

Index: (SOFR 30 day\*) 2.40% 12/1/2018 first review

Margin: 0.50% Spread Adjustment: N/A

Monthly Reviewable Loan

Rate Change Frequency 1 (Every month)

Look Back Method Back

Business Calendar for Rate Change Select Business Calendar for ARM

Floor%: N/A

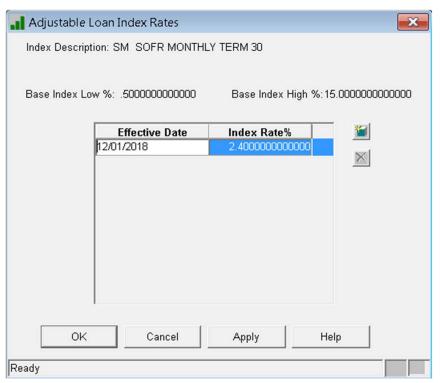
Ceiling%:

Loan cycled through the month of December

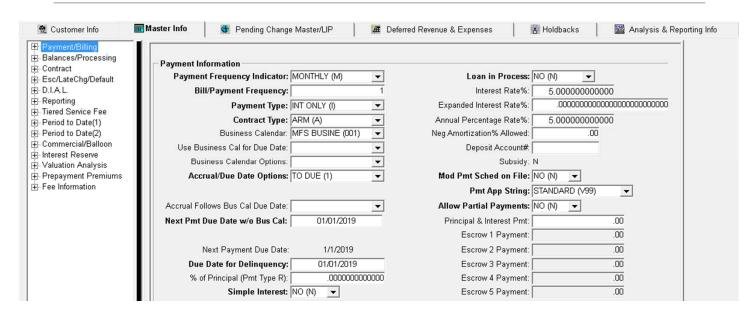
<sup>\*</sup>SOFR Compounded in Advance 30 day term rate index.



#### Index Values used in this scenario are as follows:

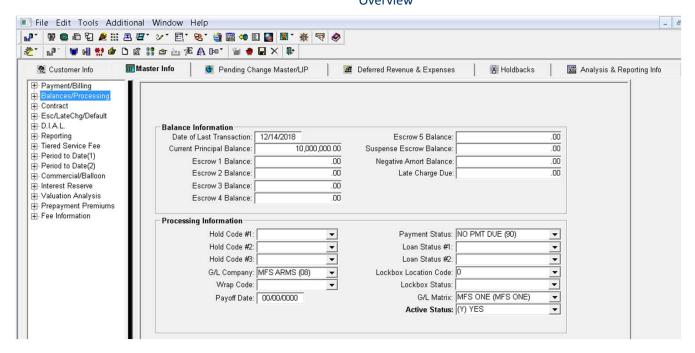


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

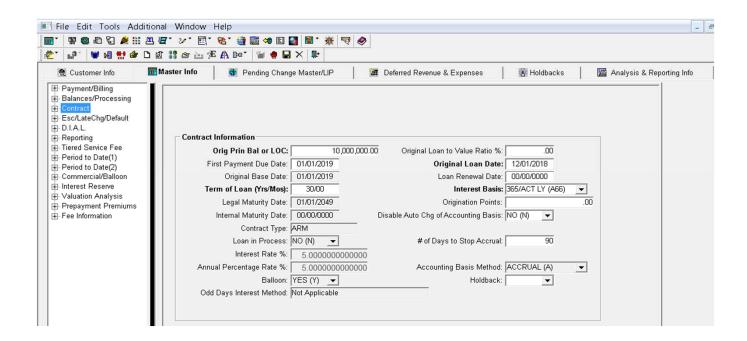


Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I))



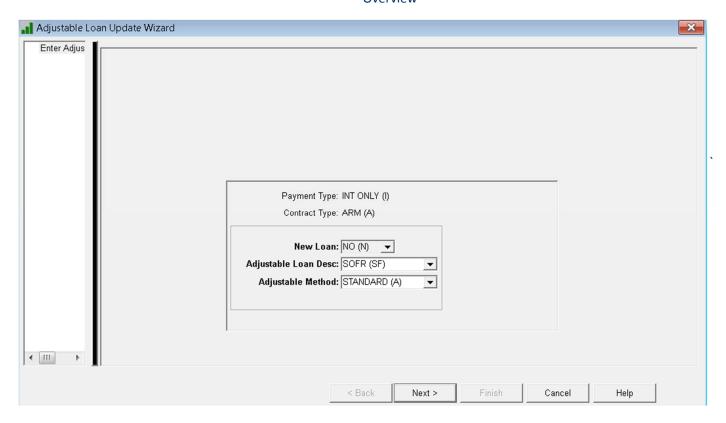


Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)



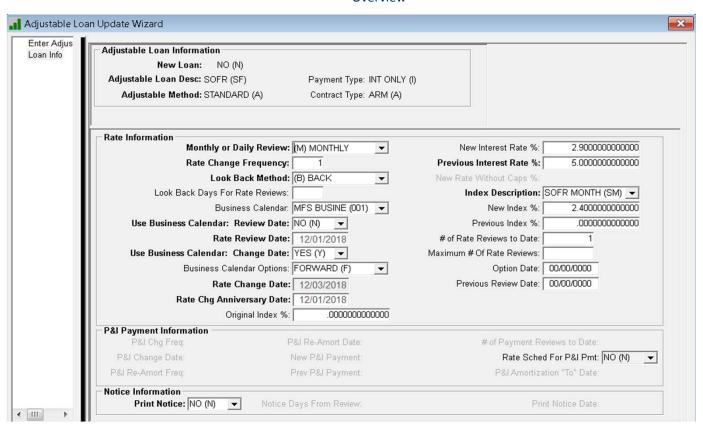
Loan Administration>Master Info>Contract - Interest Basis Code





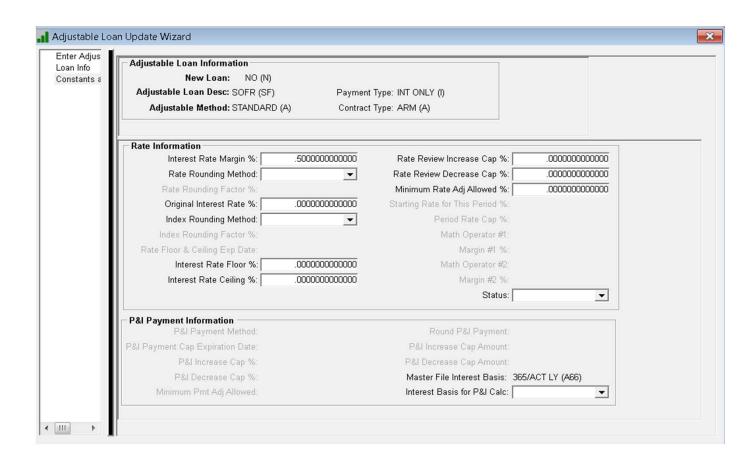
Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Monthly Reviewable, SOFR Loan with Margin), Adjustable Method (Standard (A)).





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info - Monthly or Daily Review ((M) Monthly), Rate Change Frequency (1), Look Back Method ((B) Back), Select your Business Calendar; Use Business Calendar: Review Date (No (N)); Index Description (Your Monthly Compound Interest in Advance 30 day term rate); Rate Review Date (first rate review in your scenario); Rate Chg Anniversary Date (first rate change in your scenario).





Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Margin% (Enter Margin using).



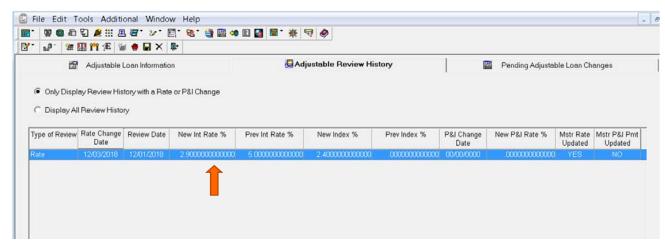
Α	В	С	D	E	F	G	Н	1
Loan Amount \$10,000,000.00 Interest Basis A66 SOFR 30 day Term							Interest Rate	Calculated Interest
Rate Margin .50%	Date	#days	Balance	Index	Margin	Basis	E+F	(D * H)*C/ G
First Cycle with rate changes	Saturday, December 01, 2018	1	10,000,000.00			365	5.0000%	1,369.86
	Sunday, December 02, 2018	1	10,000,000.00			365	5.0000%	1,369.86
Rate Change	Monday, December 03, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Tuesday, December 04, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Wednesday, December 05, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Thursday, December 06, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Friday, December 07, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Saturday, December 08, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Sunday, December 09, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Monday, December 10, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Tuesday, December 11, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Wednesday, December 12, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Thursday, December 13, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Friday, December 14, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Saturday, December 15, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Sunday, December 16, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Monday, December 17, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Tuesday, December 18, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Wednesday, December 19, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Thursday, December 20, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Friday, December 21, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Saturday, December 22, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Sunday, December 23, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Monday, December 24, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Tuesday, December 25, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Wednesday, December 26, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Thursday, December 27, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Friday, December 28, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Saturday, December 29, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Sunday, December 30, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
	Monday, December 31, 2018	1	10,000,000.00	2.40000%	0.50000%	365	2.9000%	794.52
1/1/2019 receivable							1	25,780.82



Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

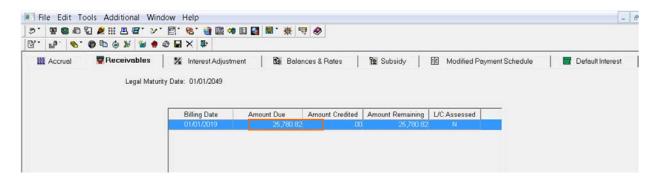
Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed.

(Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Adjustable Rate Module>Adjustable Review History tab.

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the first of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)

## Use Case for Monthly Reviewable SOFR 30 Day Compounded in Advance with Margin and Spread Adjustment Overview



### Use Case - Monthly Reviewable 30 day Compounded in Advance - Margin, Spread Adjustment, and Business Calendar

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a monthly reviewable, interest only loan referencing the 30 day Compounded in Advance Index Rate. A business calendar has been assigned to the Rate Change date.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses A66 - Interest Basis (Actual/365) A66 - Interest Basis (Actual/365)

Loan is Interest Only (I), and Accrues To the Due Date. Interest Only

Payments are due on the first

Index: (SOFR 30 day\*) 2.40% 12/1/2018 first review

Margin: 0.50% Spread Adjustment: 0.50%

Monthly Reviewable Loan

Rate Change Frequency 1 (Every month)

Look Back Method Back

Business Calendar for Rate Change Select Business Calendar for ARM

Floor%: N/A

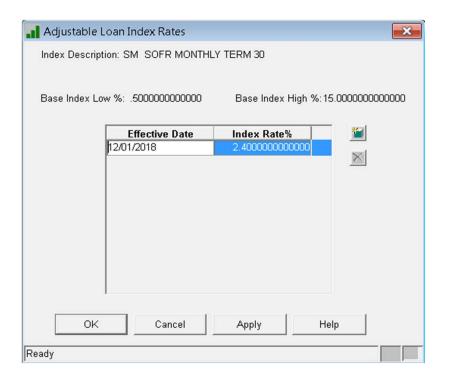
Ceiling%:

Loan cycled through the month of December

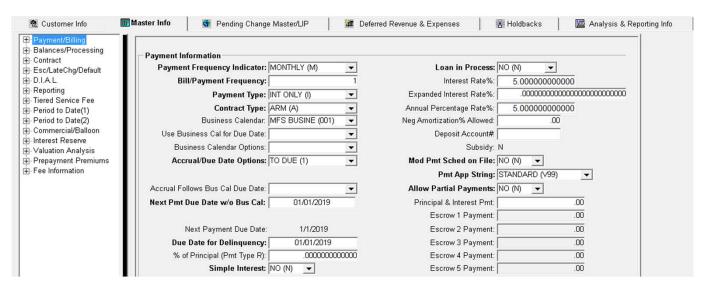
<sup>\*</sup>SOFR Compounded in Advance 30 day term rate index.



Index Values used in this scenario are as follows:

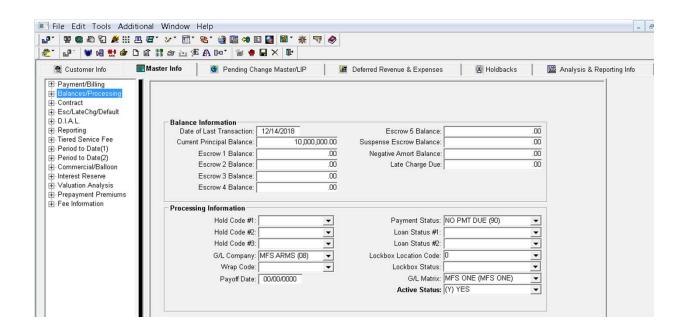


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

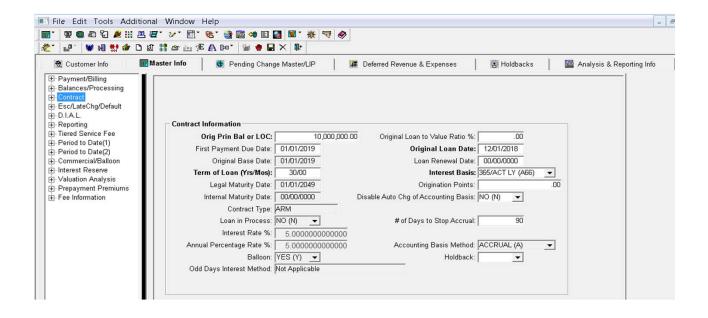


Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I))



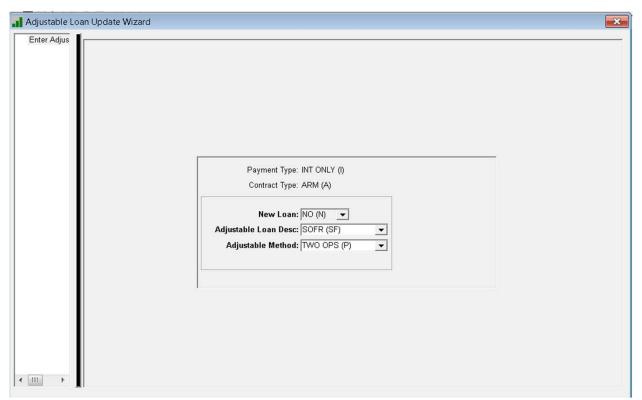


Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)



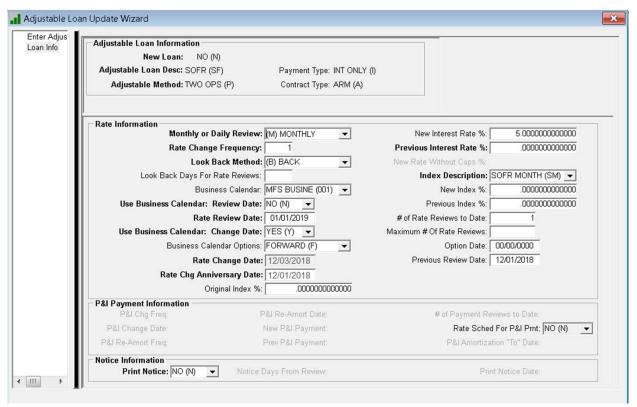
Loan Administration>Master Info>Contract - Interest Basis Code





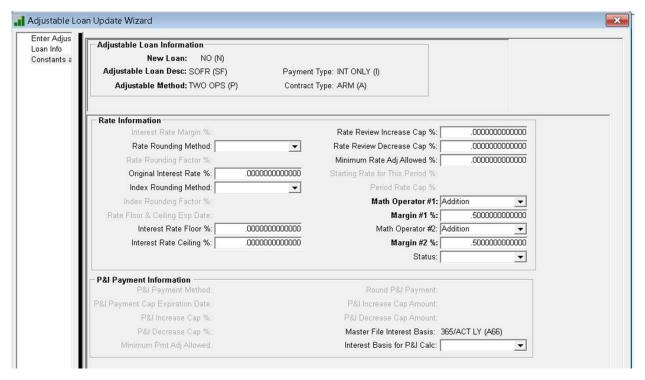
Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Monthly Reviewable, SOFR Loan with Margin & Spread Adjustment), Adjustable Method (Two Ops (P)).





Change Frequency (1), Look Back Method ((B) Back), Select your Business Calendar; Use Business Calendar: Review Date (No (N)); Rate Review Date (first rate review in your scenario); Use Business Calendar: Change Date (Yes (Y)); Business Calendar Options (Forward (F)); Rate Review Date (Strategy calculates based on Business Calendar); Rate Chg Anniversary Date (first rate change in your scenario). Index Description (Your Monthly Compound Interest in Advance 30 day term rate);





Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Operator #1 (Addition); Margin% #1 (enter the margin stated in loan documents); Operator #2 (Addition); Margin% #2 (enter the spread adjustment for the loan).



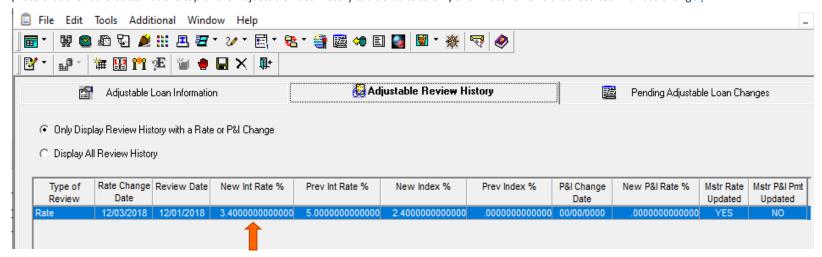
				Expected R				1 ,	<del></del>
Α	В	С	D	Е	F	G	Н	I	J
Interest Basis A66									
Simple SOFR Monthly 30 day Margin .50% + Spread Adj									Calculated
.50%					Margin	Spread Adj		Interest Rate	Interest
13575	Date	#days	Balance	Index	(operator 1)	(Operator2)	Basis	E+F+G	((D * I)* C)/H
		,.			(	(sps ss )		_	\(\(\frac{1}{2}\)
First Cycle with rate changes	Saturday, December 01, 2018	1	10,000,000.00			0.50000%	365	5.0000%	1,369.86
	Sunday, December 02, 2018	1	10,000,000.00			0.50000%	365	5.0000%	1,369.86
Rate Change	Monday, December 03, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Tuesday, December 04, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Wednesday, December 05, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Thursday, December 06, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Friday, December 07, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Saturday, December 08, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Sunday, December 09, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Monday, December 10, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Tuesday, December 11, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Wednesday, December 12, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Thursday, December 13, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Friday, December 14, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Saturday, December 15, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Sunday, December 16, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Monday, December 17, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Tuesday, December 18, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Wednesday, December 19, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Thursday, December 20, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Friday, December 21, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Saturday, December 22, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Sunday, December 23, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Monday, December 24, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Tuesday, December 25, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Wednesday, December 26, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Thursday, December 27, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Friday, December 28, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Saturday, December 29, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Sunday, December 30, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
	Monday, December 31, 2018	1	10,000,000.00	2.40000%	0.50000%	0.50000%	365	3.4000%	931.51
									29,753.42



#### **Expected Results**

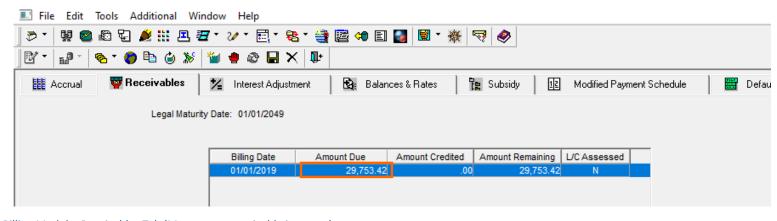
Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed (Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Adjustable Rate Module>Adjustable Review History tab.

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the first of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)

### Use Case for Daily Reviewable SOFR Daily Simple Interest - Margin - Independent Accrual Overview



### Use Case - Daily Reviewable Loan using Daily Simple SOFR Index with Margin Independent Accrual

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a daily reviewable, interest only loan referencing the Daily Simple SOFR Rate. Loan due date is the 5th of the month but loan accrues the 1st through the 31st.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses B66 Accrual Actual/360

Loan is Interest Only (I), and Accrues To the Due Date. Interest Only

Accrual/Due Date Options - Independent Accrual - 1-31st/ Payments Due on the 5th.

Accrual Start Date: 12/01/2018

Index: (Daily Simple Interest SOFR) 4.00% 12/1/2018 first day of scenario - first review date

Margin: 0.50%

Spread Adjustment: Daily Reviewable Loan

Review Frequency 1 (Every day)

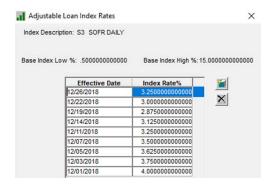
No Lookback No Business Calendar

Floor%: Ceiling%:

Loan cycled through the month of December

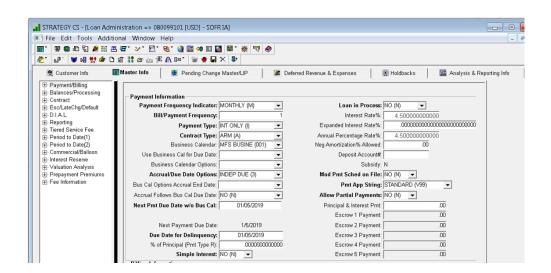


Index Values used in this scenario are as follows:

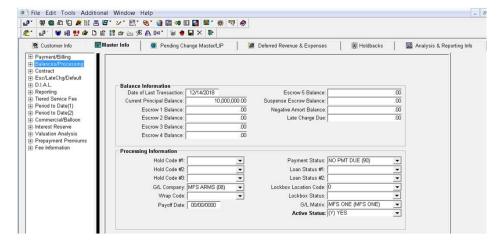


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward. Index Rate changes were entered on the day that the rate changed before that dayend.

Adjustable Loan Module>Tools>Indexes>Select Index for Daily Simple SOFR>Right Click>Index Rates



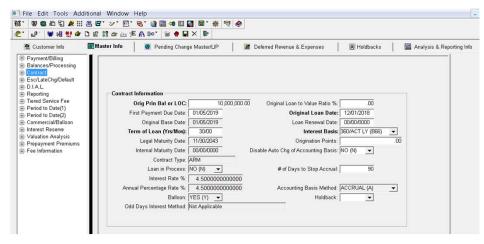
Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I)) Accrual Due Date Options: Indep Due (3); Next Pmt Due Date is 01/05/2019



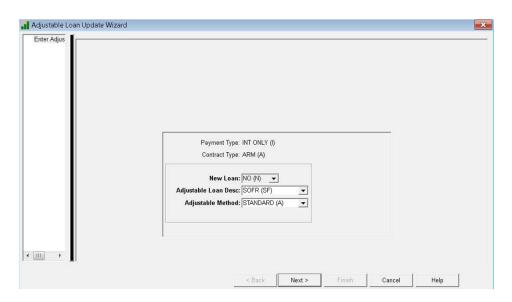
Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)

### Use Case for Daily Reviewable SOFR Daily Simple Interest - Margin - Independent Accrual Overview





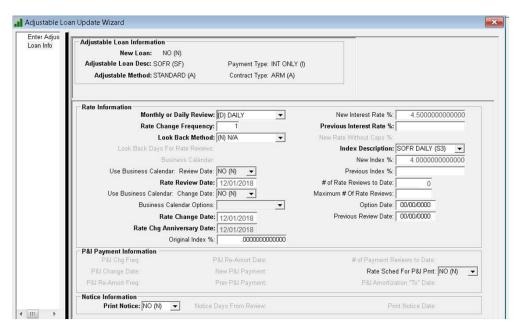
Loan Administration>Master Info>Contract - Interest Basis Code



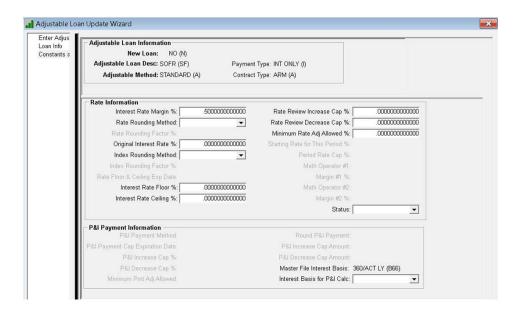
Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Daily Reviewable, SOFR Loan with Floor), Adjustable Method (Standard (A)).

### Use Case for Daily Reviewable SOFR Daily Simple Interest - Margin - Independent Accrual Overview





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info - Monthly or Daily Review ((D) Daily), Rate Change Frequency (1), Look Back Method ((N) N/A), Index Description (Your Daily Simple SOFR Index)



Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Margin% (Enter Margin using)

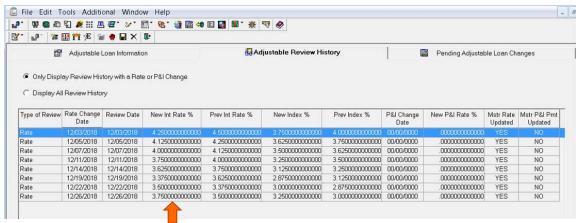


Α	В	С	D	E	F	G	Н	I
Loan Amount \$10,000,000.00 Interest Basis B66								
Simple SOFR Daily			_	_			Interest Rate	Calculated Interest
Margin .50%	Date	#days	Balance	Index	Margin	Basis	E+F	((D*H)*C)/360
First Cycle with rate changes	Saturday, December 01, 2018	1	10,000,000.00	4.00000%	0.50000%	360	4.5000%	1,250.00
	Sunday, December 02, 2018	1	10,000,000.00	4.00000%	0.50000%	360	4.5000%	1,250.00
Rate Change	Monday, December 03, 2018	1	10,000,000.00	3.75000%	0.50000%	360	4.2500%	1,180.56
	Tuesday, December 04, 2018	1	10,000,000.00	3.75000%	0.50000%	360	4.2500%	1,180.56
Rate Change	Wednesday, December 05, 2018	1	10,000,000.00	3.62500%	0.50000%	360	4.1250%	1,145.83
	Thursday, December 06, 2018	1	10,000,000.00	3.62500%	0.50000%	360	4.1250%	1,145.83
Rate Change	Friday, December 07, 2018	1	10,000,000.00	3.50000%	0.50000%	360	4.0000%	1,111.11
	Saturday, December 08, 2018	1	10,000,000.00	3.50000%	0.50000%	360	4.0000%	1,111.11
	Sunday, December 09, 2018	1	10,000,000.00	3.50000%	0.50000%	360	4.0000%	1,111.11
	Monday, December 10, 2018	1	10,000,000.00	3.50000%	0.50000%	360	4.0000%	1,111.11
Rate Change	Tuesday, December 11, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Wednesday, December 12, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Thursday, December 13, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
Rate Change	Friday, December 14, 2018	1	10,000,000.00	3.12500%	0.50000%	360	3.6250%	1,006.94
	Saturday, December 15, 2018	1	10,000,000.00	3.12500%	0.50000%	360	3.6250%	1,006.94
	Sunday, December 16, 2018	1	10,000,000.00	3.12500%	0.50000%	360	3.6250%	1,006.94
	Monday, December 17, 2018	1	10,000,000.00	3.12500%	0.50000%	360	3.6250%	1,006.94
	Tuesday, December 18, 2018	1	10,000,000.00	3.12500%	0.50000%	360	3.6250%	1,006.94
Rate Change	Wednesday, December 19, 2018	1	10,000,000.00	2.87500%	0.50000%	360	3.3750%	937.50
	Thursday, December 20, 2018	1	10,000,000.00	2.87500%	0.50000%	360	3.3750%	937.50
	Friday, December 21, 2018	1	10,000,000.00	2.87500%	0.50000%	360	3.3750%	937.50
Rate Change	Saturday, December 22, 2018	1	10,000,000.00	3.00000%	0.50000%	360	3.5000%	972.22
	Sunday, December 23, 2018	1	10,000,000.00	3.00000%	0.50000%	360	3.5000%	972.22
	Monday, December 24, 2018	1	10,000,000.00	3.00000%	0.50000%	360	3.5000%	972.22
	Tuesday, December 25, 2018	1	10,000,000.00	3.00000%	0.50000%	360	3.5000%	972.22
Rate Change	Wednesday, December 26, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Thursday, December 27, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Friday, December 28, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Saturday, December 29, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Sunday, December 30, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
	Monday, December 31, 2018	1	10,000,000.00	3.25000%	0.50000%	360	3.7500%	1,041.67
1/5/19 receivable								32,708.33



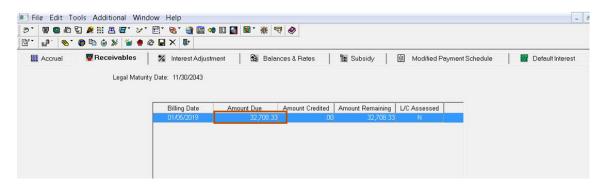
Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed. (Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Adjustable Rate Module>Adjustable Review History tab.

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the first of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)

## Use Case for Daily Reviewable SOFR Daily Simple Interest - Independent Accrual - Margin Spread Adjustment Overview



### Use Case - Daily Reviewable Loan using Daily Simple SOFR Index with Margin & Spread Adjustment Independent Accrual

Processing Adjustable Rate loans using a published rate is standard processing for Strategy. The ARRC and FRBNY are recommending the SOFR index be used as a replacement index for LIBOR. Whether you anticipate using the Forward Looking or Compounding in Advance term indices to be published based on the Secured Overnight Finance Rate, the processing of these loans is no different than when using a LIBOR index today.

When working with Strategy you will maintain the Index value in the system, entering it daily for Daily Simple Interest, monthy for 30 day Term Rates, a quarterly for 90 day terms, and so on. When determining a new interest rate for the loan, on the review date Strategy will retrieve the Index value on the loan, reference any margins, ceilings and floors, rate change caps, etc. defined in the system and calculate a new rate.

This scenario tests the accrual of interest in arrears on a daily reviewable, interest only loan referencing the Daily Simple SOFR Rate. Loan due date is the 5th of the month but loan accrues the 1st through the 31st.

The loan was set up and the library cycled through a month of processing to build the receivable for the next month. Index Values were updated during the processing for the month.

This Use Case considers a loan with the following characteristics:

Loan Balance: \$10,000,000.00

Loan Uses B66 Accrual Actual/360

Loan is Interest Only (I), and Accrues To the Due Date. Interest Only

Accrual/Due Date Options - Independent Accrual - 1-31st/ Payments Due on the 5th.

Accrual Start Date: 12/01/2018

Index: (Daily Simple Interest SOFR) 4.00% 12/1/2018 first day of scenario - first review date

Margin: 0.50% Spread Adjustment: 0.25%

Daily Reviewable Loan

Review Frequency 1 (Every day)

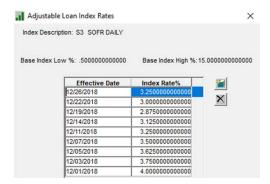
No Lookback No Business Calendar

Floor%: Ceiling%:

Loan cycled through the month of December

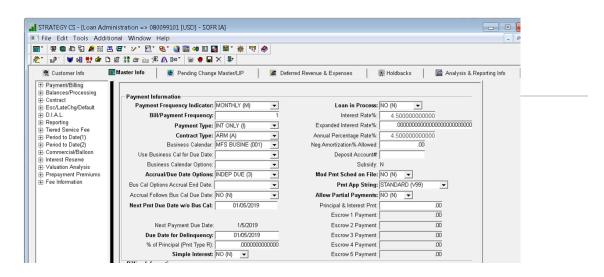


Index Values used in this scenario are as follows:

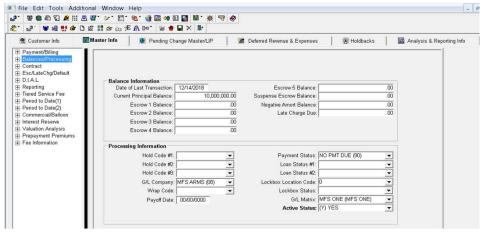


Note: To speed the testing, all index values for the test period were entered prior to running the day ends to cycle the library forward.

Adjustable Loan Module>Tools>Indexes>Select Index for Daily Simple SOFR>Right Click>Index Rates

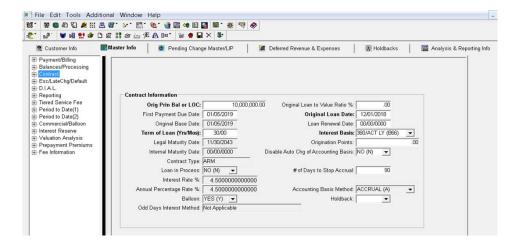


Loan Adminnistration>Master Info>Payment/Billing - Contract Type (ARM (A)); Payment Type (Int Only (I)) Accrual Due Date Options: Indep Due (3); Next Pmt Due Date is 01/05/2019

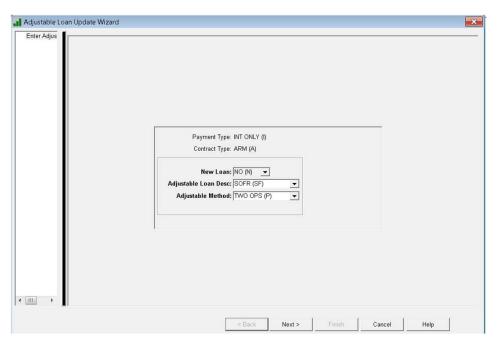


Loan Administration>Master Info>Balances/Processing - Current Principal Balance (\$10,000,000.00); Active Status ((Y) Yes)





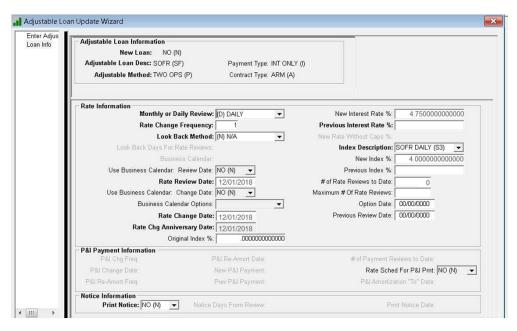
Loan Administration>Master Info>Contract - Interest Basis Code



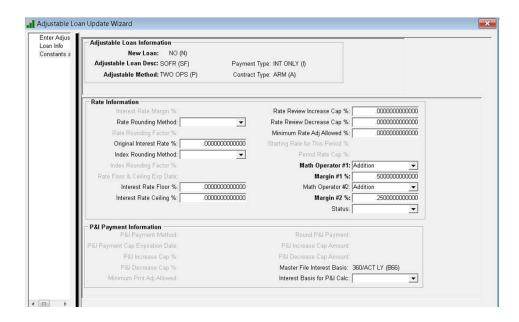
Adjustable Module>Adjustable Loan Info>Update Info - Adjustable Loan Description (Your definition of Daily Reviewable, SOFR Loan with Floor), Adjustable Method (Two Ops (P)).

## Use Case for Daily Reviewable SOFR Daily Simple Interest - Independent Accrual - Margin Spread Adjustment Overview





Adjustable Loan Module>>Adjustable Loan Info>Update Info>Loan Info - Monthly or Daily Review ((D) Daily), Rate Change Frequency (1), Look Back Method ((N) N/A), Index Description (Your Daily Simple SOFR Index)



Adjustable Module>Adjustable Loan Info>(Right Mouse)>Update Info>Loan Info>(NEXT)>Constants and Contraints - Math Operator #1 (Addition); Margin #1% (Enter Margin); Math Operator #2 (Addition); Margin #2% (Enter Spread Adjustment)



### **Expected Results**

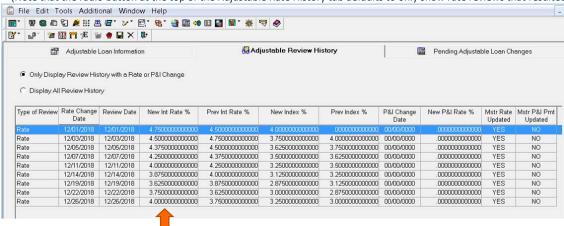
А	В	С	D	E	F F	G	Н	I	J
Loan Amount \$10,000,000.00 Interest Basis B66 Simple SOFR Daily					Margin	Spread Adj		Interest Rate	Calculated Interest
Margin .50% + Spread Adj .250%	Date	#days	Balance	Index	(Margin #1 %)	(Margin #2 %)	Basis	(E+F+G)	((D*C)*I)/H
First Cycle with rate changes	Saturday, December 01, 2018	1	10,000,000.00	4.00000%	0.50000%	0.25000%	360	4.7500%	1,319.44
	Sunday, December 02, 2018	1	10,000,000.00	4.00000%	0.50000%	0.25000%	360	4.7500%	1,319.44
Rate Change	Monday, December 03, 2018	1	10,000,000.00	3.75000%	0.50000%	0.25000%	360	4.5000%	1,250.00
	Tuesday, December 04, 2018	1	10,000,000.00	3.75000%	0.50000%	0.25000%	360	4.5000%	1,250.00
	Wednesday, December 05, 2018	1	10,000,000.00	3.62500%	0.50000%	0.25000%	360	4.3750%	1,215.28
	Thursday, December 06, 2018	1	10,000,000.00	3.62500%	0.50000%	0.25000%	360	4.3750%	1,215.28
	Friday, December 07, 2018	1	10,000,000.00	3.50000%	0.50000%	0.25000%	360	4.2500%	1,180.56
	Saturday, December 08, 2018	1	10,000,000.00	3.50000%	0.50000%	0.25000%	360	4.2500%	1,180.56
	Sunday, December 09, 2018	1	10,000,000.00	3.50000%	0.50000%	0.25000%	360	4.2500%	1,180.56
	Monday, December 10, 2018	1	10,000,000.00	3.50000%	0.50000%	0.25000%	360	4.2500%	1,180.56
	Tuesday, December 11, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Wednesday, December 12, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Thursday, December 13, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Friday, December 14, 2018	1	10,000,000.00	3.12500%	0.50000%	0.25000%	360	3.8750%	1,076.39
	Saturday, December 15, 2018	1	10,000,000.00	3.12500%	0.50000%	0.25000%	360	3.8750%	1,076.39
	Sunday, December 16, 2018	1	10,000,000.00	3.12500%	0.50000%	0.25000%	360	3.8750%	1,076.39
	Monday, December 17, 2018	1	10,000,000.00	3.12500%	0.50000%	0.25000%	360	3.8750%	1,076.39
	Tuesday, December 18, 2018	1	10,000,000.00	3.12500%	0.50000%	0.25000%	360	3.8750%	1,076.39
	Wednesday, December 19, 2018	1	10,000,000.00	2.87500%	0.50000%	0.25000%	360	3.6250%	1,006.94
	Thursday, December 20, 2018	1	10,000,000.00	2.87500%	0.50000%	0.25000%	360	3.6250%	1,006.94
	Friday, December 21, 2018	1	10,000,000.00	2.87500%	0.50000%	0.25000%	360	3.6250%	1,006.94
	Saturday, December 22, 2018	1	10,000,000.00	3.00000%	0.50000%	0.25000%	360	3.7500%	1,041.67
	Sunday, December 23, 2018	1	10,000,000.00	3.00000%	0.50000%	0.25000%	360	3.7500%	1,041.67
	Monday, December 24, 2018	1	10,000,000.00	3.00000%	0.50000%	0.25000%	360	3.7500%	1,041.67
	Tuesday, December 25, 2018	1	10,000,000.00	3.00000%	0.50000%	0.25000%	360	3.7500%	1,041.67
	Wednesday, December 26, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Thursday, December 27, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Friday, December 28, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Saturday, December 29, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Sunday, December 30, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
	Monday, December 31, 2018	1	10,000,000.00	3.25000%	0.50000%	0.25000%	360	4.0000%	1,111.11
1/5/19 receivable								<u> </u>	34,861.11



Rate Changes will be visible in the Adjustable Rate Module>Adjustable Review History Tab>

Rates in column H of the spreadsheet should equal New Int Rate% shown on the Adjustable Rate History grid for the dates that the rate changed.

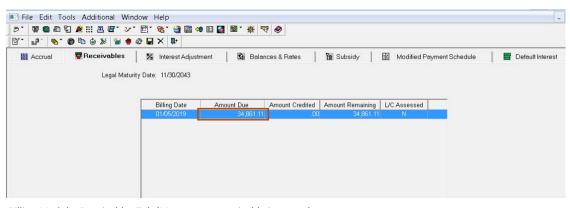
(Note that the radio button at the top of the Adjustable Rate History tab defaults to only show rate reviews that resulted in a rate change.)



Adjustable Rate Module>Adjustable Review History tab.

Adjustable Rate Module>Adjustable Review History Tab>

Total of all interest calculations for the month in column I above should equal the Interest Receivable for the fifth of the next month.



Billing Module>Receivables Tab (Most recent receivable is on top)