SFR Functional Specifications

History

	Author	Description	Comments	Date
	Max Iglesias			05-29-2013
	Vinayak Dange		Modified section 1A: to consider position date = available 9 : to consider Clearing transfer based on Trade date <= activity date of SFR and settle date > activity date of SFR Since we brought up trade date based additional filtering i.e. Trade <= SFR Report Date in line 9, system now should consider user default TZ to convert trade time to consider all trade as of EOD TZ of the user which runs this report	03-15-2017
	Matthieu Delpeuch		Additional support for column 8b	05-19-2017

Contents

1- Net Ledger Balance

1-A Cash

Definition

This line represents the sum of the cash received by the FCM from or on behalf of its customers. These funds are considered as final amounts. Example of final amounts can be a coupon paid or received, the PAI, the upfront fee, etc. This is a one-time event. An example of non-final amount can be found in the Variation Margin whose value, for a given position, varies based on the settlement price.

Note # 1

In Calypso we model the related Clearing OTC cash flow movements by using one settlement account for all flow types and per currency. That means that non-final amounts can transit through these accounts, e.g. Variation margin and must be backed-out every time we need to isolate the net cash balance of the account.

Note # 2

The Legal Entities in Calypso don't allow us to distinguish between clients or house accounts so the best way to filter only client accounts is through the attributes of the Settle accounts.

Determining the Clients Cash Balance in Calypso

We want to source this information from the Account Activity report by performing the following steps:

1. Scan all the accounts of type SETTLE non tagged as automatic and whose attributes match the conditions in the table below:

Account Attribute	Mandatory Value
CCPOriginCode	CLIENT
ClearingCashAccount	True
CCY	IS NOT "AUTO" And NOT tagged as Automatic

2. We must constitute groups of accounts around a parent Legal Entity account since the cash balance is expected to be determined at Parent level. This can be done by:
   - Determining the legal entity of those accounts resulting from step #1
   - Grouping the legal entities around the parent account.

- Legal entities not being associated to parent accounts must be considered as their own parent account.

- We include the parent accounts to the set of accounts being constituted.

- The sets of accounts thus constituted are formed of accounts in different currencies and they potentially belong to different legal entities (child accounts).

3. The account Ids of each set of accounts is passed to an Account Activity report template in order to load the closing balances of these accounts.

4. From the balance of each account we must back out the amounts, if any, whose flow type match the values in the domain NPVFlows.

5. The resulting balances are converted into USD, aggregated and the result can be considered as the Net Ledger Balance for a given customer.

Template of Account Activity report

Field	Value
Position Date	Available
Position Class	Client
Position Type	Actual
Position Detail	Start/End
Position Value	Keep the default (no impact for this template)
Processing Org	Blank
Cpty Id	Blank
Account Id	Pass all the accounts found in (3) above
Option Detail by Account	Selected. This will allow the load of balances of all currencies for a given client.
Cash/Sec	Cash
Leave all the other options with their default value.	

1-B Securities

In this line the FCM must report the value -at market- of securities received from their customer to margin, guarantee, or secure their trading activity of cleared OTC Swaps.

Determining the Clients Security Balance in Calypso

1. From the set of client settle accounts determined in 1-A, look for margin call contracts matching the following criteria:

Margin Call Contract Attribute	Criteria Value

Legal Entity of the contract	Legal entity associated with the client cash account.
MARGIN_TYPE	IM

2. When the set of margin call contracts is determined, pass the Id numbers to the *MarginCallPositionValuation* report and load the securities based on the following template

Field	Value
Underlying Type	Security
Position Type	Actual
Contracts	Pass the Id numbers through the Contract IDs selector.

3. From the output convert the security valuations from column "Value" into USD using the quote as of T-1 (T being the *Activity* date of the SFR). We use the column "Value" as we don't integrate the haircut at this level.
4. The aggregation of the amounts converted in USD constitutes the Client's Security balance that the FCM must report in line 2-B.

Note 1
When verifying the accurateness of line 1B, it makes sense to load the MarginCallPositionValuation report with all the criteria listed above.
We must know that, by configuration, the MarginCallPositionValuation uses quotes as of T-1 (T being the date of the SFR*). But the SFR currently uses quotes as of T (which is correct).* So there could be an impact when reconciling manually, but this is good to know.

Note 2 Reconciliation
We must check that the following is always true:

Line 1-B = 7C + 8C + 11C + 12

2 - Net Unrealized Profits (Loss) in Open Cleared OTC Derivatives

1. Consider Clearing Transfer trade where:
    a. Trade Date = SFR Activity Date (NO CHANGE in current logic)
2. Convert the numbers backed out from the Account activity report in 1-A (4) into USD.
3. Aggregate the converted numbers and report the total in line 2.

4. User default TZ should be use while converting trade date time while filtering CT trade for Line 2

3 - Cleared OTC Derivatives Options

Not implemented.

4 - Net Equity (Deficit)

Combine lines 1-A, 1-B and 2 and report the result in line 4.

Note that the formula includes line 3 as well but we don't support it.

5 - Accounts Liquidating to a Deficit and Accounts with Debit Balances

Definition:

Accounts with deficit balances less amount offset by customer owned securities

5-A Customers with Debit Balance - Gross

An account is in deficit when the combination of an account's Cash Ledger balance (debit or credit) and the unrealized profit or loss in the open cleared position liquidates to an amount less than zero. Any securities used to margin the account **are not** included in determining the customer's deficit.

The FCM should show on line 5 the total of the deficits in customer's regulated accounts.

Combining Accounts of the Same Owner
If a customer has more than one regulated account, an FCM must combine all such accounts in determining whether a customer has a net deficit on the FCM's books.

Example 1

CUSTOMER	Equity/Deficit
HF2	USD 2M
HF2_1	(USD 500K)
HF2_2	(USD 700K)
Net Liquidating Equity	USD 800K

Even though accounts HF2_1 and HF2_2 liquidate to a deficit, the FCM must exclude the entire amount from line 5 since account HF2, liquidating to an equity, exceeds the aggregation of accounts liquidating to a deficit.

Example 2

CUSTOMER	Equity/Deficit
HF2	USD 2M
HF2_1	USD 500K
HF2_2	(USD 3M)
Net Liquidating Deficit	(USD 500K)

In this case the FCM must report USD 500K in line 5.

Determining Line 5-A in Calypso

1. Determine the cash accounts associated to a parent account[1]
2. The balances determined earlier in 1-A (3) are already grouped at parent level.
3. Pass the accounts Ids to the Account Activity template.
4. For each customer, convert the balances into USD
5. Aggregate the converted balances so that, at the end, there is one USD balance by customer (parent legal entity).
6. Filter only those balances less than zero.
7. Aggregate the balances obtained in 6 and flip the sign.
8. Report the total in line 5.

Example
In the example below, the table shows the closing balances (converted in USD) of three accounts. The netted balance of account CYP_HF2 is positive therefore we ignore this result.

Accounts CYP_HF1 and CYP_HF1_1, both have netted negative balances. Their numbers must be used to populate 5A.

CONTRACT	CLIENT	CCP	CCY	BCB	NPV_REV	NPV	PAI	COUPON	Cash Coll IN	Closing Bal	FX	Total in USD
300808	CYP_HF2	ICE	USD	455,025.00	(450,000.00)	480,000.00	0.00	-	2,500,000.00	2,985,025.00	1	2,985,025.0
300809	CYP_HF2	CME	EUR	(93,033.00)	120,000.00	(150,000.00)	0.00	-	-	(123,033.00)	1.2974	(159,623.0
289801	CYP_HF1	ICE	EUR	(130,000.00)	100,000.00	(90,000.00)	0.00	-		(120,000.00)	1.2974	(155,688.0
302343	CYP_HF1_1	ICE	USD	(230,000.00)	150,000.00	(80,000.00)	0.00	-		(160,000.00)	1	(160,000.0
												2,509,713.9

5A = (155,688.00) + (160,000.00) = (315,688)

SequestrationFundRequirement Report (12/9/14 1:44:50 PM)

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Currency	1-A Cash Net Ledger Balance	1-B Securities Net Ledger Balance	2 Net Unrealized Profit	3-A Market Value of Open Contracts Purchased	3-B Market Value of Open Contracts Sold	4 Net Equity	5-A Accounts Gross Amount
USD	2,226,479.99	638,409.66	283,234.00	0.00	0.00	3,148,123.65	315,688.0

5 -B Customer's Owned Securities (offset amount)

If any regulated clearing Swap account which liquidates to a deficit also contains securities which are considered "readily marketable", the FCM may reduce the deficit up to the amount of the market value of such securities less applicable deductions (i.e. securities haircuts).

Example
Assuming customer HF2 with two children accounts has sent to the FCM 10M of value in US Bonds. Let's assume a deduction of 10% haircut on the bonds as well. The value after haircut is 9M. Let's assume that 5M of the bonds are being used to cover cleared swaps open positions. The remaining 4M are unallocated.

CUSTOMER	CASH (Equity/deficit)	Unallocated Securities	Total
HF2	2M	4M	6M
HF2_1	(3M)		(3M)
HF2_2	(2.7M)		(2.7M)
Total	(3.7M)		300K

Although cash account for customer HF2 liquidates to a deficit (e.g. -3.7M), the deficit is fully covered by the unused securities. As a result, the deficit balance of customer HF2 must not be included in line 5.

Determining Line 5-B in Calypso

Note: If the Legal Entity in 5-A has a cash balance equal of bigger than zero, ignore them. The following steps apply only for customers which cash account liquidates to a deficit.

1. From the set of legal entities with negative balances determined in 5-A(6), look for margin call contracts matching the following criteria:

Margin Call Contract Attribute	Criteria Value

Legal Entity of the contract	Legal entity associated with the client cash account related to a negative balance as determined in 5-A(6)
MARGIN_TYPE	IM
CCP	All CCPs from the SFR GUI plus Unallocated

2. When the set of margin call contracts is determined, for each parent legal entity, pass the Id numbers to the *MarginCallPositionValuation* report and load the securities based on the following template:

Field	Value
Underlying Type	Security
Position Type	Actual
Contracts	Pass the Id numbers through the Contract IDs selector.

3. From the output convert the security valuations from column "All-In Value" into USD and aggregate them. This column contains the securities valuation after haircut.
4. Offset the result from the customer's deficit balance based on the following logic:
   Assuming at the beginning of the iteration the value of 5B is zero:
   a. If the valuation of the securities of the legal entity fully covers the account deficit;
      i. Add the amount of the **deficit** to 5B.
   b. If the absolute value of the deficit is bigger than the valuation of the securities;
      i. Add the value of the **securities** to 5B.

Example
Assume three independent customers: HF1, HF2 and HF3. Below is the current status for each one (Values in USD):

CUSTOMER	DEFICIT/EXCESS	COLLATERAL@CCP	COLLATERAL UNALLOCATED	ADD TO 5B
HF1	(2.5M)	1M	800k	1.8M
HF2	(3M)	5M	0	3M
HF3	(5M)	0	5M	5M
TOTAL 5B				**9.8m**

Determining Line 5-C in Calypso

1. For customers in deficit determined in 5-A, find if there exist an offsetting securities amount to reduce or fully cover the deficit and determine the balance based on the following rules:

The conditions below apply for each customer individually:

Condition
At the start of the iteration 5C = 0
For each customer in 5A
$\quad\quad$ 5C = 5C + [ABS(5A) − 5B]

6 - Amount required to be sequestered for Cleared OTC Derivatives Customers

Add lines 4 and 5-C

7 - Funds Deposited in cleared OTC Derivatives Customer Sequestered Accounts at Banks

An FCM must segregate all customer funds. Segregated funds may be held at a bank or trust company.

Configuration

Domain SFR7BMovementType

This is optional. It can be populated with either CleanVal(MTM) of DirtyVal(MTM) to determine the Movement Type in the Inventory Position. If this domain is empty, the default movement type will be *Balance*.

Domain SFR7CBookType

Recommended value OOTB is CLIENT

Domain SFR7CMovementType

Expected value is "Balance"

7-A Cash

Report cash on deposit with banks with properly designated segregated accounts. In Calypso we source this information from the Account Activity report of accounts tagged with the attribute SequesteredAccount matching the values from the domain ***accountProperty.SequesteredAccount***

Determining Line 7-A in Calypso

1. Scan all the accounts whose attribute SequesteredAccount matches any of the values in the domain **accountProperty.SequesteredAccount**
2. Load the Account Activity report of the accounts determined in (1) based on the following template:

Account Activity report template

Field	Value
Position Class	Internal
Position Date	Settle
Account Id	Accounts determined in (1) above.
Currency	Account currency
Cash/Sec	Cash
Position Type	Actual
Position Value	Ignore when Cash/Sec = Cash
Aggregation	Book/Agent/Account
Movement type	Balance
Processing Org	The FCM
All the other fields not mentioned above must be used with their default value.	

3. Convert all the Closing balances to USD add them and report the total in line 7A.

7-B Securities Representing Investments of Customer's Funds

The FCM must report investments of customer's fund at market value (no haircut). Calypso supports *clean* and *dirty* valuations.

In calypso, the investments with customer's segregated funds must transit through dedicated settle accounts whose attribute Collateral Investment is set to "true".

Determining Line 7-B in Calypso

1. Select the settle accounts whose attribute SequesteredAccount is set to Bank and whose attribute Collateral Investment is set to "true".
2. Load the inventory position for the accounts determined in (1) and based on the following Inventory Position report template:

Field	Value
Position Date	Settle
Position Class	Internal

Position Type	Actual
Position Value	Nominal
Position Direction	All
Aggregation	Agent/Account
Account Id	Accounts determined in (1)
Cash/Sec	Security
Movement Type	Balance or CleanVal(MTM), or DirtyVal(MTM). **_Note that Balance should be the default Value._**
ProcessingOrg	The FCM
All the other fields not mentioned should keep their default value (which includes blanks).	

3. Convert the values into USD, sum the converted rows and report the total in line 7B

7-C Securities held for particular Customers in Lieu of Cash

User Case

1. A customer sends securities to the FCM for the needs related to clearing OTC Swaps.
2. The FCM keeps a record of those securities internally.
3. The MarginCallPositionValuation is the _internal_ report that gives information about the valuation of securities received from the customers.
4. The FCM reports the value, at market price, from internal source, of such securities in line 1B.

The regulators need to know how these securities are being used. For that purpose the Segregation Report includes two sections: (1) a section where the FCM's must report the portion of the securities held in segregated accounts at the bank (that is line 7); (2) a section where the FCM must report the portion of the securities held by a CCP (that is line 8).

It would make sense to source line 7C from the security inventory position where the agent is the bank holding the client segregated account and we would source 8C from the security inventory position where the agent is the CCP holding securities for client accounts.

Logically, as lines (7) and (8) is just the breakdown of the amount reported in 1B; a good way to reconcile is to verify that 1B = 7C + 8C.

Determining Line 7-C in Calypso

1. Run an Inventory Security report based on the following template:

Field	Value
Start and end Date	Report Date
Position Date	Settle
Position Class	Internal
Position Type	Actual
Position Value	Nominal
Position Direction	All
Aggregation	Book/Agent/Account
Agent	Blank
Account Id	Blank
Custom Filter	Blank
Cash/Sec	Security
Books	Blank
Securities	Blank
Sec Code	Blank
SD Filter	NONE
Initialization Date	NONE
Movement Type	Value from domain SFR7CMovement Type
Processing Org	The FCM
Valuation DateTime	PO Book EOD, or 23:59 in the default TimeZone
Pricing Env	PE configured in the SFR report

2. From the result in the above, filter the rows where:
   a. BookType is the value in the SFR7CBookType domain.
   b. Agent is NOT the PO/FCM.
   c. Account property "Collateral Investment": Blank or False
3. Convert the filtered rows aggregate them and report the result in line 7C.

Example 1

Suppose the FCM, represented by CALYPUS, has one customer CYP_HF2 active on cleared swaps on the CME and clearing CDS on ICE CLEAR CREDIT.

The collateral activity of customer CYP_HF2 as of Jun-24 for clearing date as of Jun-23, 2014. On Jun 24th, the customer has to cover a margin requirement of 800K USD for the CME and 1.2M USD for ICE CLEAR CREDIT, meaning a total of 2M USD. The customer sends to the FCM more money than needed with the intention of avoiding daily calls. The FCM accepts 2.5M USD in cash and 500K EUR of German bonds. Below is how the FCM is expected to allocate the received funds:

ALLOCATIONS: Jun-24
CYP_HF2   -> 1M Cash for CME
                    800K Cash -> CME
                    200k Cash -> Unallocated
            -> 1.5M in USD cash and 500k EUR (Notional) of German bonds to cover ICE CLEAR CREDIT
                    700k Cash -> ICE CLEAR CREDIT
                    800K Cash -> Unallocated
                    500k Sec -> ICE CLEAR CREDIT

Line 7 of the SFR is expected to have the following values:

7-A Cash: 1M USD (from the 2.5M USD sent by the customer, 1.2M were used to cover margins and that money is now sitting at the CCPs respective banks).

7-B Investments: None

7-C Securities All the 500K EUR in German bonds were sent to ICE CLEAR CREDIT so we expect zero here.

Template Description						Use Tenor		Use SnapShot		Include Child POs		
Start 06/24/2014			End 06/24/2014		Books				ProcessingOrg CALYPUS			
Position Date	Settle	Aggregation	Agent/Account	Currencies								
Position Class	Internal	Agent										
Position Type	Actual	Account Id					Agg. Config					
Position Value	Quantity	Custom Filter		Initialization Date	NONE		Display Only Multiple Agent					
Position Direction	All	Offset. Pos Cash/Sec	Cash	Movement Type	Balance		Filter Zero Balance		Propagate To Security			
Closing Bal.				Node Expansion Level					Display Past Prepaid Transfers			

Cash

SequesteredAccount	Collateral Investment	Currency	Agent	Account	Position Type	Jun 24, 2014
		USD	BANK OF AMERICA	Clearing Cash Flows CYP_HF2 - CME	ACTUAL	-800,000
		USD	BANK OF AMERICA	Clearing Cash Flows CYP_HF2 - ICE CLEAR CREDIT	ACTUAL	-700,000
Bank		USD	BANK OF AMERICA	CALYPUS SEG-CLIENT - USD	ACTUAL	1,000,000
		USD	BANK OF AMERICA	Clearing Cash Flows CYP_HF2 - Unallocated	ACTUAL	-1,000,000
		USD	CME	CME Client Acc for CALYPUS - USD	ACTUAL	0

Line 8 Margin on Deposit with Derivatives Clearing Organizations (CCPs)

FCMs must report cash and securities on deposit with CCPs.

The case of investment of customer's should obey the following rules:

1. An investment in an IEF2 program must appear in line 8-b.
    a. Such an investment impacts line 8-A of the amount of the investment.
    b. Line 7 is not expected to be impacted by this investment. The reason is that we are not using excess funds sitting in the Client seg account to finance the IEF program but rather we are performing a conversion of cash into another type of asset.
2. An investment in IEF5 is like moving cash to another bank cash account paying interests. So, it is still cash but we represent this investment in Calypso through a fund (that is treated as a security).
    a. So, an investment in IEF5 increases line 8-A but it decreases it of the amount of the investment that was needed it to fund it.

8-A Cash

In Calypso the cash collateral(Only IM), paid to the CCP is represented by a margin call contracts known as CCP-Facing, where the Legal Entity is the CCP. The report providing this information is the *MarginCallPositionValuation*.

Determining Line 8-A in Calypso

1. Filter all the margin call contracts whose Legal Entity matches the values in the list of CCPs selected by the user to run the SFR.
2. Two types of contracts result from the above criteria: Client CCP-Facing and House CCP-Facing contracts. We should filter only the Client CCP-Facing contracts.
3. Filter only the rows whose CCP_ORIGIN_CODE is set to CLIENT, which represent the client CCP-Facing contracts.
4. Contracts of ONLY IM must be selected.
5. Pass the contract Ids to the following *MarginCallPositionValuation* template and load:

Field	Value
Processing Org	The FCM
Role	All
Contract Types	All
Collateral Policy	All
Position Direction	All
Status	All
Position Type	ACTUAL
Underlying Type	Cash

6. Aggregate the "Contract Value" rows and convert the result into USD.
7. Flip the sign.
8. To this amount add the amount from:
    a. Run the *MarginCallPositionValuation* report with underlying type set to Security.

      b. Filter the rows meeting the following criteria:
          i. Collateral investment = TRUE
          ii. SFR-8A = True
      c. Sum the values from column "Value" (no conversion needed since the currencies of these programs are exclusively in USD).
9. Add the result from 8(c) to the result found in 7 and report the total to line 8-A.

Example #1 8-A

MarginCallPositionValuation Report (6/25/14 7:28:40 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
264115	CME	CLIENT			Cash	USD	-800,000.00		USD	-800,000.00	0	-800,000.00	1.00000	-800,000.00
290355	ICE CLEAR CREDIT	CLIENT			Cash	USD	-700,000.00		USD	-700,000.00	0	-700,000.00	1.00000	-700,000.00

In the above illustration the FCM would report 1.5M USD in Line 8-A.

Example # 2 8-B

On Jun 24th customer CYP_HF2 had allocated 800K of cash USD to the CME. On the 25th the FCM decides to make a substitution and invest 250K out of the 800K in an IEF5 investement.
After the necessary substitutions in Calypso, here are the two *MarginCallPositionValuation* reports that the SFR will use to populate 8-A
Cash

MarginCallPositionValuation Report (6/25/14 7:37:03 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	SFR-8A	SFR-8B	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
290355	ICE CLEAR CREDIT	CLIENT					Cash	USD	-700,000.00		USD	-700,000.00	0	-700,000.00	1.00000	-700,000.00
264115	CME	CLIENT					Cash	USD	-550,000.00		USD	-550,000.00	0	-550,000.00	1.00000	-550,000.00

From column "Values": (-700K – 550K)= -1.25M => 1.25M USD

Plus
Security

MarginCallPositionValuation Report (6/25/14 7:37:03 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	SFR-8A	SFR-8B	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
290355	ICE CLEAR CREDIT	CLIENT					Security	BondDBR 3 1/2 07/04/19/10Y/07/04/2019/3.5%	-500,000.00	0.97000000	EUR	-502,116.44	10	-451,904.79	1.3000	-587,476.23
264115	CME	CLIENT	TRUE	IEF5	True		Security	CME IEF5 - JPM	-250,000.00	1.00	USD	-250,000.00	0	-250,000.00	1.00000	-250,000.00

From column "Value" where Collateral Investment = True AND SFR-8A=True: -250K => 250K

SFR

SequestrationFundRequirement Report (12/7/14 1:22:48 PM)

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

counts Balance	6 Sequestered Amount	7-A Cash Deposited	7-B Securities of Customers Funds Deposited	7-C Securities of Customers Held	8-A Margin Cash Deposited	8-B Margin Securities of Customers Funds	8-C Margin Securities in Lieu of Cash
0.00	3,151,445.87	1,000,000.00	0.00	0.00	1,500,000.00	0.00	651,445.87

Note that line 8-Ais unchanged
Note that the investment in IEF5 doesn't show up in 8-C

8-B Securities representing investments of customer's funds

FCMS must report investments of customer funds at market value (no haircut).

(1) Determining Line 8-B in Calypso – IEF2 Investment vehicle

1. Follow the steps in 8-A above until step (5) but make sure the template filters "Security" in field underlying Type.
2. Select the rows where Collateral Investment product attribute is set to "true" and whose PRODUCT_CODE.SFR-8B is set to "True".
3. Convert the values of column "Value" into USD aggregate them, flip the sign and report the result in line 8-B.

Example #1 8-B (1)

On Jun 24th customer CYP_HF2 allocated 800K of cash USD to the CME. On the 25th the FCM decides to make a substitution and invest 170K out of the 800K in an IEF2 investement.

After the necessary substitutions in Calypso, here is the *MarginCallPositionValuation* report that the SFR uses to populate 8-B

In the illustration above, the FCM would report 170K in line 8-B.

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(2) Determining Line 8-B in Calypso – Treasury Bonds Investment Vehicle

1. Select the settle accounts whose attribute SequesteredAccount is set to Null (i.e. not set to Bank) and whose attribute Collateral Investment is set to "true".
2. Load the inventory position for the accounts determined in (1) and based on the following Inventory Position report template:

Field	Value
Position Date	Settle
Position Class	Internal
Position Type	Actual
Position Value	Nominal
Position Direction	All
Aggregation	Agent/Account
Account Id	Accounts determined in (1)
Cash/Sec	Security
Movement Type	Balance or CleanVal(MTM), or DirtyVal(MTM). **Note that Balance should be the default Value.**
ProcessingOrg	The FCM
All the other fields not mentioned should keep their default value (which includes blanks).	

3. Convert the values of column "Value" into USD aggregate them, flip the sign and report the result in line 8-B.
4. If there is an IEF2 Investment Position [see (1)], sum up the 2 subtotals: (1) + (2)

8-C Securities held for particular Customers in Lieu of Cash

Report securities owned by particular customers at market price (no haircut).

Determining Line 8-C in Calypso

1. Follow the instructions in 8-A until step (5) but make sure the template filters "Security" in field underlying Type.
2. Filter only the row where Collateral Investment product attribute is **NOT** "true" and whose PRODUCT_CODE.SFR-8B is **NOT** "True".
3. Convert the values of column "Value" into USD aggregate them, flip the sign and report the result in line 8-B.

MarginCallPositionValuation Report (6/25/14 7:37:03 PM) / 01 Template for SFR

Report Data View Export Market Data Utilities Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	SFR-8A	SF...	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
264115	CME	CLIENT	TRUE	IEF2		True	Security	JPMCAP1 IEF2	-170,000.00	1.00	USD	-170,000.00	0	-170,000.00	1.00000	-170,000.00
290355	ICE CLEAR CREDIT	CLIENT					Security	BondDBR 3 1/2 07/04/19/10Y/07/04/2019/3.5%	-500,000.00	0.97000000	EUR	-502,116.44	10	-451,904.79	1.3000	-587,476.23

In the example above, the FCM would report 652,751.37 USD (502,116.44 * 1.3) *in line 8-C.*

Example 1

Suppose the FCM, represented by CALYPUS, has one customer CYP_HF2 active on cleared swaps on the CME and clearing CDS on ICE CLEAR CREDIT.

The collateral activity of customer CYP_HF2 as of Jun-24 for clearing date as of Jun-23, 2014. On Jun 24th, the customer has to cover a margin requirement of 800K USD for the CME and 1.2M USD for ICE CLEAR CREDIT, meaning a total of 2M USD. The customer sends to the FCM more money than needed with the intention of avoiding daily calls. The FCM accepts 2.5M USD in cash and 500K EUR of German bonds. Below is how the FCM is expected to allocate the received funds:

ALLOCATIONS: Jun-24
CYP_HF2 -> 1M Cash for CME
                          800K Cash -> CME
                          200k Cash -> Unallocated
            -> 1.5M in USD cash and 500k EUR (Notional) of German bonds to cover ICE CLEAR
    CREDIT
                          700k Cash -> ICE CLEAR CREDIT
                          800K Cash -> Unallocated
                          500k Sec -> ICE CLEAR CREDIT
Line 8 of the SFR is expected to have the following values:
8-A Cash   800K USD + 700K USD = 1.2M USD
8-B Investments   None
8-C Securities   500 (notional) EUR of German Bonds

Source of Line 8-A

MarginCallPositionValuation Report (6/25/14 7:28:40 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
264115 CME	CLIENT				Cash	USD	-800,000.00		USD	-800,000.00	0	-800,000.00	1.00000	-800,000.0
290355 ICE CLEAR CREDIT	CLIENT				Cash	USD	-700,000.00		USD	-700,000.00	0	-700,000.00	1.00000	-700,000.0

In the above illustration the FCM would report 1.5M USD in Line 8-A.

Source of Line 8-B

NONE

Source of Line 8-C

MarginCallPositionValuation Report (6/25/14 7:37:03 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

CP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	SFR-8A	SFR-8B	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Valu
R CREDIT	CLIENT					Security	BondDBR 3 1/2 07/04/19/10Y/07/04/2019/3.5%	-500,000.00	0.95000000	EUR	-492,068.49	10	-442,861.64	1.2974	-574,568.

*In the example above, the FCM would report 638,409.66 USD (492,861.64 * 1.32974 in line 8-C.*

The SFR

SequestrationFundRequirement Report (12/7/14 1:22:48 PM)

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

	7-A Cash Deposited	7-B Securities of Customers Funds Deposited	7-C Securities of Customers Held	8-A Margin Cash Deposited	8-B Margin Securities of Customers Funds	8-C Margin Securities in Lieu of Cash
	1,000,000.00	0.00	0.00	1,500,000.00	0.00	638,409.66

Example 2

This is a continuation of the user case described in Example 1. On Jun 25th the user performs activity in the Collateral Manager for business as of Jun-24th. Nothing has changed except that the FCM decides to convert part of the 800K cash USD collateral posted to the CME the previous day into an IEF2 investment.

The FCM requests the CME to invest 170K cash USD into an IEF2 program. At the end the user expects to have at CME, 170K invested an IEF2 fund, and 630K of USD cash.

Expected behavior in line 8 of the SFR

8-A Cash	630K USD
8-B Investment	170K USD
8-C Securities	The valuation (with bond quotes and FX rates as of Jun 25th) of the 500K German bonds.

Source of Line 8-A

MarginCallPositionValuation Report (6/25/14 7:37:03 PM) / 01 Template for SFR

Report   Data   View   Export   Market Data   Utilities   Help

Criteria

Contract	Client/CCP-Facing (F)	ORIGIN	Collateral Investment	CollateralCategory	SFR-8A	SFR-8B	Type	Description	Nominal	Clean Price	Currency	Value	Haircut	All-In Value	FX Rate	Contract Value
290355 ICE CLEAR CREDIT	CLIENT						Cash	USD	-700,000.00		USD	-700,000.00	0	-700,000.00	1.00000	-700,000.00
264115 CME	CLIENT						Cash	USD	-630,000.00		USD	-630,000.00	0	-630,000.00	1.00000	-630,000.00

The FCM would report 1,330,000 USD of cash

Source of Line 8-B

The FCM would report 170K USD in line 8-B

Source of Line 8-C

*The FCM would report 502,116.44 * 1.3 = 652,751.37 in Line 8-C*

SFR Jun -25th

Possible ISSUE

Note that, as stated earlier, we expect = 652,751.37 USD in line 8-C but instead the SFR reports 651,445.87 USD. The reason is that the system is using the FX rate as of Jun-24th: 1.297400006 instead of 1.3 as the rate provided in the MarginCallPositionValuation report.
The right amount here should be 652,751.37 USD.

OBSERVATIONS

Note that line 7 will not be impacted by the present user case. This is expected behavior.

9 Net Settlements

Net settlement amounts resulting between the FCM and the CCP from the clearing of OTC Swaps. We must include the variation margin, the PAI, the UPFRONT fee, etc, This amount is provided by the principal of the cash settlement trades.

1. Load the trade browser based on the following criteria:

Field	Value
Trade Date	<= Activity Date of the SFR
Settle Date	> = Activity Date of the SFR

Trade attribute IS_CLIENT	true
Product Type	Clearing Transfer
Status	VERIFIED
Processing Org	The FCM
CCP	Set of CCPs from the CCP field in the SFR GUI criteria..
Currency	Set of currencies from the CCY field in the currency field of the SFR GUI criteria. Note that an empty field means ALL currencies.
Keep all the other fields with their default values.	

2. Sort the output by currency.

3. For each currency, check if the calendar associated to that currency.

    a. If the Activity Date of the SFR is a business day in the currency calendar

        i. Convert the principals into USD

    b. If the Activity Date of the SFR is a Holiday in the currency calendar

        i. Load another trade browser report based on the following template:

Field	Value
Trade Date	Start=End= Last business day before the Activity Date of the SFR Find the previous business date based on the Clearing Business Calendar (CBC) that is not a holiday based on the currency calendar. Example: SFR Activity Date is "d" Currency: C C[d] is a holiday date C[d-1] is a holiday date C[d-2] is a business date The most previous business date is then d-2, assuming this date is a business date based on the CBC. Note
Trade attribute IS_CLIENT	true
Product Type	Clearing Transfer
Status	VERIFIED
Processing Org	The FCM
CCP	Set of CCPs from the CCP field in the SFR GUI criteria..
Currency	Currency whose calendar shows that the Activity Date of the SFR is a holiday.
Keep all the other fields with their default values.	

        i.   Convert the principals into USD

4. Sum all the principals and report the total in line 9.

5. User default Time Zone should be use while converting trade date time while filtering CT trade for Line 9

Instructions for QA

Assumptions

C = designates the currency

d = designates the Activity Date of the SFR and is a business day according to the CBC.

C[d] =indicates if "d" is a holiday according the calendar of currency C.

Ensure that the all the test cases involve at least 2 clients

Ensure that for all the test cases, each client has positions in more than one currency,

Conceive the following test cases:

TC #1

1) For CME and LCH run the SFR as of d-1. We assume d-1 is a business day for all currencies.

    a.   Check that line 9 is populated as per requirements. We expect this number be the sum of all USD converted CS principals.

2) For CME and LCH, run the SFR as of d

    a.   Convert and sum the principals of the currencies other than C.

    b.   Convert and sum the principals of currency C[d-1]

3) Add 2(a) and 2(b) and this should be the expected amount in line 9

TC #2

Take the case in TC #1 but assume that C[d-1] is also a holiday. In other words, there are two consecutive holidays for currency C.

Expect to include in the final total, CS principals from d-3, assuming this day is business day according to CBC and the currency C calendar.

TC #3 Currency Breakdown

Perform similar tests as in TC# 1/2

E.g. if only the currency C is selected. We must expect line 9 to contain only the sum of the USD

converted amounts as of the most recent business day of currency C.

10-A Value of Open Long Contracts

Not supported

10-B Value of Open Long Contracts
Not supported

11-A Net Liquidating Equity with other FCMs

11-B Net Securities of Customers Funds
Not supported

11-C Net Securities in Lieu of Cash
Not supported

12 Cleared OTC Derivatives Customer Funds
Not supported

13 Total Amount in Sequestration
Combine lines 7 through 12

14 Excess Funds in Sequestration

Subtract line 6 from line 13.