

# Nasdaq Calypso Eurex FCM Integration Guide

Version 6.3.0

Revision 1.0 January 2024 Approved



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# Document History

Revision	Published	Summary of Changes
1.0	January 2024	First edition for version 6.3.0 (compatibility with version 18)

This document describes the Calypso EUREXFCM Interface setup.



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# Introduction

Calypso OTC derivatives clearing member solution offers a complete solution for entities offering OTC clearing services to their internal trading desks as well as to external clients. The primary activities that the clearing member will be relying on Calypso for are:

- The use of connectivity and STP workflow to automatically accept or reject trades submitted for clearing by their customers.
- Management of cash and collateral related to the clearing activities, and
- Generating client statements for their customers to summarize the day's activity.

The clearing process is similar across all CCPs where the trades are cleared via STP and then margin requirements, account positions, generating client statement, etc. processes are performed. However, every CCP has certain reporting specifications, files specifications according to which the system has to be configured to run the clearing process.

This document describes the Calypso EUREXFCM Interface setup.

## Product Coverage and Scope

The Scope of this project is to build an interface to EUREX and process the incoming messages and persist those as trades for Clearing.

The Following are the product types supported:

IRS (Vanilla/OIS/Basis/ZC)

FRA

Cross Currency Swap

Basis Cross Currency Swap

FX clearing (FX Swap, FX Spot, FX Forward)

NDF

The Following are the messages supported

- Request Consent (BS\_WAIT\_TAKEUP)
- Clearing Confirmed (VERIFIED)
- Clearing Refused (BS\_REJECTED)
- Netting (Full / Partial)
- Termination (Full / Partial)
- Transfer (Trade / Account)
- Amendment



• Update (The request can be sent either by DC or CM to execute an update on the trade in VERIFIED status. Thereby netting string, internal reference, source system legal entity id (MarkitWire BIC) and the legal entity id (LEI) can be changed)



# Setup Instructions

# 2.1 Software Requirements

The following libraries are required as dependency for the EUREX module, you need to download the required dependency libraries files from the download website:

- Calypso-datauploader
- Calypso-cal-upload
- Calypso-lowlatency
- Calypso-eurexfcm

## Version 4.8.0 and under

The following third-party jars are needed and should be added to classpath. These jars can be downloaded from apache. These jars are runtime dependent and the client needs to download their own version of the jars from apache.

qpid-client-0.28.jar qpid-common-0.28.jar camel-amqp-2.10.0.jar geronimo-jms\_1.1\_spec-1.0.jar

## Version 4.9.0 and above

camel-amqp-3.4.2.jar geronimo-jms\_2.0\_spec-1.0-alpha-2.jar netty-buffer-4.1.48.Final.jar netty-codec-4.1.48.Final.jar netty-codec-http-4.1.48.Final.jar netty-common-4.1.48.Final.jar netty-handler-4.1.48.Final.jar netty-resolver-4.1.48.Final.jar netty-transport-4.1.48.Final.jar netty-transport-native-epoll-4.1.48.Final-linux-x86\_64.jar netty-transport-native-kqueue-4.1.48.Final-osx-x86\_64.jar



netty-transport-native-unix-common-4.1.48.Final.jar proton-j-0.33.4.jar qpid-jms-client-0.51.0.jar

## Version 5.6.2 and above

The following libraries are now included in Eurex FCM module: org.apache.qpid:proton-j org.apache.qpid:qpid-jms-client org.apache.geronimo.specs:geronimo-jms\_2.0\_spec org.apache.camel:camel-amqp io.netty:netty-buffer io.netty:netty-buffer io.netty:netty-codec io.netty:netty-codec-http io.netty:netty-codec-http io.netty:netty-common io.netty:netty-handler io.netty:netty-transport io.netty:netty-transport io.netty:netty-transport-native-epoll io.netty:netty-transport-native-kqueue io.netty:netty-transport-native-unixcommon

# 2.2 Installation Instructions

## 2.2.1 Setup Config Data using Execute SQL

Upgrading the DB and associated Domain Values.

Add the following schema files present in /bin/dbscripts folder to the Execute SQL to Synchronize the DB.

- "SchemaBase.xml",
- "GatewaySchemaBase.xml"
- "EurexFCMSchemaData.xml"



• "FpMLSchemaData.xml"

## 2.2.2 Task Station Configuration

Users can view EX\_INCOMINGFEEDMSG exceptions in the Task Station for exceptions related to the integration of INCOMINGFEEDMSG messages.

Users can view INCOMINGFEEDMSG messages using <status code>\_INCOMINGFEEDMSG.

Users can view EX\_OUTGOINGFEEDMSG exceptions in the Task Station for exceptions related to the integration of OUTGOINGFEEDMSG messages.

Users can view OUTGOINGFEEDMSG messages using <status code>\_OUTGOINGFEEDMSG.

## 2.2.3 Workflow Setup

The following workflows should be imported:

<calypso home>/resources/INCOMINGFEEDMSG.wf

<calypso home>/resources/OUTGOINGFEEDMSG.wf

<calypso home>/resources/TRADE\_WORKFLOW\_FCM\_And\_HRC.wf











## 2.2.4 Connectivity and Property Files

Calypso has direct connectivity with Eurex OTC Clear portal unlike other CCPs. To establish connectivity with Eurex Portal, user has to follow certain steps to capture the incoming feed from Eurex as well as support outgoing feed to Eurex.

Connectivity to EUREX is via JMS using the apache AMQP protocol.

All the connectivity details including the SSL parameters are maintained in property file eurex.properties which is used in various configuration files using JNDI.

The following properties files are provided under <calypso home>/client/resources and need to be modified. They are used by different incoming feeds to consume messages and send requests to from EUREX

Rename all the ".properties.sample" files in resources folder to ".properties".

## datauploaderExternalURI.xml

This file contains the definition for connectivity using different messaging systems like JMS / IBM / AMQP.

User has to activate the Eurex settings by un-commenting the below section:

```
<!-- EUREX SETTINGS -->
   <!--
    <bean id="eurexSource" parent="eurexamqp">
        <property name="concurrentConsumers" value="${INCOMING CONS"</pre>
        <property name="maxConcurrentConsumers" value="${INCOMING C</pre>
    </bean>
    <bean id="eurexamqp" class="org.apache.camel.component.amqp.AMQ</pre>
        <property name="connectionFactory" ref="amqpConnectionFacto"
    </bean>
    <bean id="amqpConnectionFactory" class="org.springframework.jnd</pre>
      <property name="jndiName" value="qpidConnectionfactory" />
      <property name="jndiTemplate" ref="jndiTemplate" />
   </bean>
   <bean id="jndiDestinationResolver" class="org.springframework.jm</pre>
      <property name="jndiTemplate" ref="jndiTemplate" />
   </bean>
    <bean id="jndiTemplate" class="org.springframework.jndi.JndiTem
      <property name="environment"></property name="environment">
         <bean class="org.springframework.beans.factory.config.Prop</pre>
            property name="location" value="classpath:eurex.proper
         </bean>
      </property>
   </bean>
 --!>
</beans>
```

Command has been activated as below:





```
<!--EUREX SETTINGS-->
           <bean id="eurexSource" parent="eurexamqp">
                    <property name="concurrentConsumers" value="${INCOMING CONSUMERCOUNT:1}"/>
                     <property name="maxConcurrentConsumers" value="${INCOMING_CONSUMERCOUNT:1}"/>
          </bean>
           <br/><br/>d="eurexamqp" class="org.apache.camel.component.amqp.AMQPComponent">
                    <property name="connectionFactory" ref="amgpConnectionFactory"/>
          </bean>
           <bean id="amqpConnectionFactory" class="org.springframework.jndi.JndiObjectFactoryBean">
               <property name="jndiName" value="qpidConnectionfactory" />
               <property name="jndiTemplate" ref="jndiTemplate" />
        </bean>
        <br/><bean id="jndiDestinationResolver" class="org.springframework.jms.support.destination.JndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDestination.jndiDes
                <property name="jndiTemplate" ref="jndiTemplate" />
        </bean>
           <bean id="jndiTemplate" class="org.springframework.jndi.JndiTemplate">
               <property name="environment"></property name="environment">
                        <bean class="org.springframework.beans.factory.config.PropertiesFactoryBean">
                               cproperty name="location" value="classpath:eurex.properties" />
                       </bean>
               </property>
        </bean>
</beans>
```

#### eurex.properties

(this will contain the connectivity details and the queue names to connect to)

The user of this interface has to get all the connectivity details, which includes the SSL certificates and the truststore keys.

This file contains the connection factory string with host and port and the SSL Parameters if required as shown below. (AMQP has a limitation where all the connectivity parameters have to be provided as part of the Connection factory shown below and xml based definition is not supported).

#### Version 4.8.0 and under

```
connectionfactory.qpidConnectionfactory =
amqp://:@client1/?brokerlist='tcp://90.162.253.111:18575?ssl='true'&sasl mechs='EXTERNAL'&ssl_cert_alias='calvx
calxvbocalypso'&trust store='EUREX_TRUSTSTORE.jks'&trust_store_password='calypso'&key store='EUREX_KEYSTORE.jks'
&key_store_password='calypso'
```

The user has to change the host name and port number and the certificate names.

### Version 4.9.0 and above

connectionfactory.qpidConnectionfactory=amqps://90.162.253.111:18575?transport.verifyHost=false&transport.keySto
reLocation=<calypso</pre>

home>/client/resources/EUREX\_KEYSTORE.jks&transport.keyStorePassword=calypso&transport.trustStorePassword=calyps
o&transport.trustStoreLocation=<calypso</pre>

home>/client/resources/EUREX\_TRUSTSTORE.jks&transport.keyAlias=calxv\_calxvbocalypso



The user has to change the host name and port number and the certificate names, as well as the location of the Eurex Truststore / Keystore files.

The other properties in the file represent the Queue names.

Broadcast Queues

Request Queue

Reply Queue

Response Queue

logMessages=true

messageFileDir=<UserDefinedLocation>

## **Queue Names**

The FCM Connects to the following Queues to receive messages.

1. Trade Notification

When the trade is submitted via the Platform (Markitwire) to the CCP (EUREX) there will be 2 trades created in EUREX. And these two trades (EB Trade and the Client Trade) are available in the TradeNotification Queue and TradeNotificationNCM Queue Eurex.properties defined above contains the definition of both the queues (The user has to just change the queue name part and leave the rest of the settings as is).

2. Request

Request Queue is the Queue where the FCM will submit its requests and when sending the requests, the FCM should tell EUREX to place the response in the Reply Queue using the JMSReplyTo Header.

3. Reply

The Reply Queue is the Queue where the responses are held

4. Response

The FCM receives the responses to his requests in the Response Queue. The Response Queue is an on demand queue and is created when connected and deleted when the connection is terminated. The following property files are configured to receive messages and acknowledgements from the Client and EB perspective.

Note that these files do not have to be changed, as the names referred by these files are the JNDI names defined in eurex.properties. Hence the user has to update the queue names assigned to them in that property file.

## EUREXEBService.properties

Used by the Incoming Feed to consume messages from the EB Queue.

logMessages=true

messageFileDir=<UserDefinedLocation>



### EUREXCLIENTService.properties

Used by the Incoming Feed to consume messages from the Client Queue.

logMessages=true

messageFileDir=<UserDefinedLocation>

You can see the messages received from Eurex as shown below:

A functify the fragment tor: N								
C C = L → Computer → Local Disk (C:) → interfaces → EUREX →								
Organize   Include in library   Share with	Organize ▼ Include in library ▼ Share with ▼ New folder							
🚖 Favorites	Name	Date modified	Туре	Size				
📃 Desktop	Eurex_2556820_BS_REJECTED_20190925091449343.xml	9/25/2019 9:44 PM	XML Document	17 KB				
🐌 Downloads	Eurex_2556820_BS_WAIT_TAKEUP_20190925091428184.xml	9/25/2019 9:44 PM	XML Document	17 KB				
🐉 Recent Places	Eurex_2556818_BS_WAIT_MARGIN_20190925090632607.xml	9/25/2019 9:36 PM	XML Document	17 KB				
Box Sync	Eurex_2556818_BS_WAIT_TAKEUP_20190925090517500.xml	9/25/2019 9:35 PM	XML Document	17 KB				

## EUREXACKService.properties

Used by the Incoming Feed to consume messages from the Response Queue.

### Incoming Feed

EUREX sends messages in 3 Queues

TradeNotification

TradeNotificationNCM

ResponseQueue

This interface needs 3 incoming feeds for the following

- a) Receive messages for role EB
- b) Receive messages for role Client
- c) Receive Responses for the requests made by the FCM

The following bat files are available to run these processes and the configuration required to connect to the Queues is also available in the respective configuration files.

### EUREXEBService.properties

EUREXCLIENTService.properties



## EUREXACKService.properties

The Incoming Feed receives the message sequence and the message, and sends to the Feed Translator.

Below changes should be done in eurexClientincomingfeed.bat file to establish connectivity with Eurex and the resp env.

:: SET JAVA\_OPTS=%JAVA\_OPTS% -Djavax.net.ssl.keyStorePassword=calypso -Djavax.net.ssl.keyStore=EUREX\_KEYSTORE.jks -Djavax.net.ssl.trustStorePassword=calypso -Djavax.net.ssl.trustStore=EUREX\_TRUSTSTORE.jks -Djava.util.Arrays.useLegacyMergeSort=true %USER\_HOME%



## 2.2.5 Required Processes

Start the following servers under <calypso home>/deploy-local/<Environment>:

Please note that for Incoming and Outgoing the following runtime VM arguments are needed.

- -Djavax.net.ssl.trustStore=<Name of TrustStore>
- -Djavax.net.ssl.trustStorePassword=<password>
- -Djavax.net.ssl.keyStore=<Name of the KeyStore>
- -Djavax.net.ssl.keyStorePassword=<password>

There are 2 ways to run the Eurex related messaging components. Like other FCM modules all the Eurex related components can be combined into one java process or each process can be run independently as a separate java process.

Please refer to the **Messaging Framework Integration** document to see how all the components can be run in one java process.

Please follow the steps below for running the components individually.

• Messaging Server

This server must be started first – The messaging server acts as Message bus providing queues to store messages for further processing. This can be started using the following script



### uploaderMessagingServer.bat

• Incoming Feed for EB - It takes messages from the EUREX EB queue and places them on the incoming queue This can be started using the following script

eurexEbIncomingFeed.bat

 Incoming Feed for Client - It takes messages from the EUREX CLIENT queue and places them on the incoming queue

This can be started using the following script

eurexClientIncomingFeed.bat

 Incoming Feed for Acknowledgements - It takes messages from the EUREX RESPONSE queue and places them on the incoming queue

This can be started using the following script

eurexAckIncomingFeed.bat

• Feed Translator - It takes messages from the incoming queue, sends the message to the Persistor queue for audit purposes, translates the message into a trade, and sends the trade to the Outgoing

This can be started using the following script

feedTranslator.bat

• Data Persistor - It reads messages from the Persistor queue (incoming messages, Trade & outgoing messages) and saves them to the Database

This can be started using the following script

dataPersistor.bat

• Outgoing Feed:

This process will send acknowledgement messages to EUREX.

This can be started using the following script

outgoingFeed.bat

• UpdateManagerEngine

Add PSEventTrade and PSEventMessage as events for this Engine using the Engine Manager in Web Admin.



# Mapping

# 3.1 Legal Entity Mapping

In EUREX we have the following parties setup.

CALXV – is the Clearing Member

CAYXV - client

CAXXV - client

When we get the messages for Client the Account information will have the respective names.

Message from CALXV would have account information as CALXV\_P

Message from CAYXV would have account information as CAYXV\_P

Message from CAXXV would have account information as CAXXV\_P

🗾 Legal Entity	- Version - 6 [13000	7SP2/13SP2/calyp	so_user] (l	Jser: calypso_user)	<u>_     ×</u>
Utilities Help					
Short Nan	EUREX			Status Enabled	<b>T</b>
Full Nan	Eurex			Role(s) Agent	
Pare	nt			CCP CounterPa	arty
Count	GERMANY		·	MarketPla	ce
Inactive As Fro	m	User calypso_use	er		
Entered Da	te 10/03/2006	3:17:12 AM	-		
External R	ef		Dis	abled Role(s)	
Holida	/s XEUR		Inanciai Ion Financial		
				Trip	arty Substitutions
				Trip.	arty Substitutions
🔀 Legal Entity	Attributes Window ·	- Version - 1 (User:	calypso_us	er)	arty Substitutions
Legal Entity	Attributes Window	- Version - 1 (User:	calypso_us	er)	arty Substitutions
Legal Entity	Attributes Window	- Version - 1 (User:	calypso_us	rrip.	arty Substitutions
Legal Entity Legal En Processing C	Attributes Window - ntity EUREX rg ALL	- Version - 1 (User:	calypso_us	er)	arty Substitutions
Legal Entity Legal En Processing C Attribute T	Attributes Window - ntity EUREX rg ALL ype EurexParticipa	- Version - 1 (User:	calypso_us	e ALL ANONYMOUS	arty Substitutions
Legal Entity Legal En Processing C Attribute T	Attributes Window htty EUREX rg ALL ype EurexParticipa	- Version - 1 (User:	calypso_us	e ALL	arty Substitutions
Legal Entity Legal En Processing C Attribute T Id	Attributes Window htty EUREX rg ALL ype EurexParticipa Processing Org	• Version - 1 (User:	calypso_us	e ALL ANONYMOUS Attribute Type	arty Substitutions
Legal Entity Legal En Processing C Attribute T Id 86237	Attributes Window htity EUREX rg ALL ype EurexParticipa Processing Org ALL	- Version - 1 (User:	calypso_us	e ALL ANONYMOUS Attribute Type EurexParticipant	Attribute Value

The EurexParticipant should match the Clearing House received in the incoming XML.





💋 Legal Entity- \	/ersion - 0 [1300079	5P2/135P2/calyps	o_user] (Use	er: calypso_user]	
Utilities Help					
Short Name	CALYPUS			Status Enabled	i 💌
Full Name	Clearing Member Firm	2		Role(s) Process	ingOrg
Parent					
Country	UNITED STATES	-			
Inactive As From		User calypso_user			
Entered Date	09/16/2014	12:07:21 PM			
External Ref			Disabi	ed Role(s)	
Holidays	NYC	Ein C Nor	ancial n Financial		
					inarty Substitutions
				<u> </u>	
🗾 Legal Entity A	ttributes Window -	Version - 1 (User:	calypso_us	er)	>
Legal Enti	ty CALYPUS		Role	ALL	T
Processing Org	ALL	<b>_</b>			
Attribute Typ	e EurexParticipar	nt 🔻	Value	CALXV_CALXVB	OCALYPSO
Id	Processing Org	Legal Entity	Role	Attribute Type	Attribute Value
86239 A	LL	CALYPUS	ALL	EurexParticipant	CALXV_CALXVBOCAL

**From EUREXFCM perspective**, to upload a house and client trade via FPML message, system is configured with logic where trade keyword CCPAccountReference and external name on the clearing account should be updated in below specified format.

 If client trade then the Trade keyword CCPAccountReference and external name on the clearing A/c should be:

<membld> + '\_'+<acctTypGrp Name> + '\_'+ <srcSysClientId>

• If a house trade then the CCPAccountReference on trade keyword and external name on the clearing A/c should be :

<membld> + '\_'+<acctTypGrp Name>+'\_'++ <srcSysLEld>

**Note:** In case of client trades, srcSysLEId in Eurex EOD report (Variation Margin report (CC203)) is same as srcSysClientId in FPML message which is uploaded via DTUP.

Hence, the system first checks whether it is a client or house trade. Based on the type of trade, the system will search for clearing A/c set up as per above format.



## House Trade

- If a house trade, then will locate srcSysLEId in the FPML
- CCPAccountReference trade keyword will be formed in format

## <membld> + '\_'+<acctTypGrp Name> + \_ +< srcSysLEld>

Based on this keyword, it will search for clearing A/c with external name <membld> + '\_'+<acctTypGrp Name> + \_ +< srcSysLEld>

• If the tradekeyword and external name match, trade will be uploaded successfully.

## Example:

<fpml:accountId> CALXV\_P</fpml:accountId>

<EurexAPIXML: srcSysLEId > CALEUREXLXV</EurexAPIXML: srcSysLEId >

External name / CCPAccountReference should be : CALXV\_P\_CALEUREXLXV

## **Client Trade**

- If a client trade, then will locate srcSysClientId in the FPML
- CCPAccountReference trade keyword will be formed in format

<membld> + '\_'+<acctTypGrp Name> + \_ +< srcSysClientId >

Based on this keyword, it will search for clearing A/c with external name <membld> + '\_'+<acctTypGrp Name> + \_ +< srcSysClientId >

(as mentioned above srcSysClientId in FPML is same as srcSysLEId in EOD report for client trades)

### Example:

<fpml:accountId>CAXXV\_P</fpml:accountId>

<EurexAPIXML:srcSysClientId>CALEUREXYXV</EurexAPIXML:srcSysClientId>

External name / CCPAccountReference should be: CAXXV\_P\_CALEUREXYXV

For the clearing account to be picked up correctly, below points should be noted:

- It is the External name i.e. position A/c ID which identifies the clearing A/c for the trades.
- Description tag on the clearing A/c creates the mirroring link between the 2 clearing A/c's
- Product\_Account\_Reference attribute differentiates the clearing A/c based on the product from a set of A/c's in the system
- InitialMarginAccount attribute helps linking the initial margin

360T Trade booking details are mentioned in the below Intraday Processing section.





Accounts Definition - Authorization mode OFF HOUSE@MSPO-EUREX MIRROR / 19605 - version 6

Nasdaq

Account	Statements	Attributes	Interests	Limits	Consolidation	Translation/F	Revaluation	Clearing	Browse		
A	ccount Name	HOUSE@M	ISPO-EURE	X MIRRO	DR						
Pr	ocessing Org	MSPO			∼ Cc	AUTO $\sim$	Id 1960	)5	]		
	Туре	SETTLE	∽ Si	ubType		$\sim$	Auto/T	emplate A	CC	××	
E	xternal Name	CALXV_P_	CALEUREXI	xv	Q	Interface Ru	ule Aggreg	gate	$\sim$	Кеу	Value
	D	10001							_	CCPAccountStructure	
	Description	19604								CCPOriginCode	✓ HOUSE
Lec	al Entity (E2)	FUREX				Role A	gent		$\sim$	CCP_Account_Reference	
	,, ()	LUILLI				1010	90.00			CFTCAccountNumber	
(	Creation Date	16/19 10:1	4:26 AM	Cro	eate by Acc En	gine only				CFTCNetGrossReportingFlag	*
										CFTCSubAccount	
Cic	osing Account				La	st Closing Date	e			Clearing Book	MSPO_HOUSE_CLEARING@CCP
Pa	arent Account					Parent I	d 0			ClearingCashAccount	✓ False
E	external Settl.				E	xternal Cash A	ccount				

Accounts Definition - Authorization mode OFF HOUSE@MSPO-EUREX / 19604 - version 16

#### Account Utilities Reports Process Help

Account	t Statements	Attributes Interests Limits Consolidation Translation/Revaluation Clearing Brows	e	
A Pi	Account Name rocessing Org	HOUSE@MSPO-EUREX MSPO ~ Ccy AUTO ~ Id 19604		
	Туре	SETTLE V SubType V Auto/Template Acc	××	
E	External Name	CALXV_P_CALEUREXLXV Q Interface Rule Aggregate ~	Key	Value
		10505	CCPAccountStructure	
	Description	19605	CCPOriginCode	<ul> <li>HOUSE</li> </ul>
Leg	gal Entity (F2)	MS HOUSE Role CounterParty ~	CCP_Account_Reference	
			CFTCAccountNumber	
	Creation Date	16/19 10:13:43 AM Create by Acc Engine only	CFTCNetGrossReportingFlag	<b>*</b>
			CFTCSubAccount	
Ci	osing Account	Last Closing Date	Clearing Book	MSPO_HOUSE_CLEARING@CMF
Pi	arent Account	Parent Id 0	ClearingCashAccount	▼ False
	External Settl.	External Cash Account		

## 3.3 Client Account

Note: FX trades are booked via 360T system whereas XCCY and IRS trades are booked with Markitwire.

Though the clearing service is updated as FX for both XCCY and FX, trade booking source system is different due to which external name for the clearing A/c's will be different based source system LE ID.



However, if the source LE ID in 360T is similar to the MW system then the external names will be same and one clearing A/c for FX trades is enough.

## FX Trades

Account Utilities	Reports Process Help		
Account Statements	Attributes Interests Limits Consolidation Translation/Revaluation Legal Entities	Clearing Browse	
Account Name	FX ICICI@MSPO-EUREX MIRROR		
Processing Ora			
Processing Org			
Туре	SETTLE V SubType V Auto/Template Acc	X	
External Name		Key	Value
External Name	CAXXV_P_CALEDREXXXV Interface Rule Aggregate	Clearing Book	
Description	22447		Telse
Legal Entity (E2)	ICICI Role CounterParty V	Description	✓ Clearing
Logar Lindy (12)		HKEXAccountName	
Creation Date	i/19/20 6:56:48 AM Create by Acc Engine only	InitialMarginAccount	CAXXV_P
Closing Account	Last Closing Date	LCHAccountName	
		PRODUCT_TYPE	
Parent Account	Parent Id 0	Product_Account_Reference	FX
External Settl.	External Cash Account		
Account Statements	Attributes Interacts Limits Consolidation Translation/Povaluation Legal Entities	Clearing Prowco	
Account Statements	Autobales interests Limits Consolidation Translation/Revaluation Legal chattes (	cleaning browse	
A second blocks			
Account Name	FX ICICI@MSPO-EUREX		
Processing Org	MSPO V Ccy AUTO V Id 22447		
_		R	
i ype	SubType V Auto/Template Acc		
External Name	CAXXV_P_CALEUREXXXV Q Interface Rule Aggregate ~	Кеу	Value
Description	22449	Clearing Book	CAXXV P_FX CLIENT_CLEARING@CCP
Description	22740	ClearingCashAccount	▼ False
Legal Entity (F2)	EUREX Role Agent 🗸	Description	
Creation Date	1/19/20 6:55:45 AM	HKEXAccountName	
creation bate			
Closing Account	··· Last Closing Date		
Parent Account	Parent Id 0	Product Account Reference	FX

## **XCCY Trades**

Only needed if source LE ID is different from source LE ID of 360T system.



#### Account Utilities Reports Process Help

Account Statements	Attributes Interests Limits Consolidation Translation/Revaluation Legal Entities C	learing Browse	
Account Name Processing Org	IRD ICICI@MSPO-EUREX MIRROR MSPO V Ccy AUTO V Id 19602		
Туре	SETTLE V SubType V Auto/Template Acc	X	
External Nam <mark>e</mark>	CAXXV_P_CALEUREXXXV Q Interface Rule Aggregate ~	Key Clearing Book	Value CAXXV P IRD CLIENT CLEARING@CMF
Descripti <mark>on</mark>	19603	ClearingCashAccount	✓ False
Legal Entity (F2)	ICICI Role CounterParty ~	Description	✓ Clearing
	Multi-Owner	HKEXAccountName	
Creation Date	16/19 10:10:58 AM Create by Acc Engine only	InitialMarginAccount	CAXXV_P
		LCHAccountName	
Closing Account	Last Closing Date	PRODUCT_TYPE	
Parent Account	Parent Id 0	Product_Account_Reference	IRD

Account Statements Attributes Interests Limits Consolidation Translation/Revaluation Legal Entities Clearing Browse Account Name IRD ICICI@MSPO-EUREX- MIRROR ✓ Ccy AUTO ✓ Processing Org MSPO Id 19603 Type SETTLE ✓ SubType  $\sim$ Auto/Template Acc × Кеу Value External Name CAXXV\_P\_CALEUREXXXV Q Interface Rule Aggregate  $\sim$ CAXXV P\_IRD CLIENT\_CLEARING@CCP Clearing Book Description 19602 ClearingCashAccount - False Clearing Description Legal Entity (F2) EUREX .... Role Agent HKEXAccountName Multi-Owner Creation Date 16/19 10:11:30 AM Create by Acc Engine only InitialMarginAccount CAXXV\_P LCHAccountName **Closing Account** .... Last Closing Date PRODUCT\_TYPE Parent Account Parent Id 0 Product\_Account\_Reference IRD .... External Settl. External Cash Account ... ....

## NDF Trades

ccount Utilities Re	ports Process Help
ccount Statements A	ttributes Interests Limits Consolidation Translation/Revaluation Legal Entities Gearing Browse
Account Name	CAXXV NDF 360T HOUSE@MSPO-EUREX MIRROR
Processing Org	MSPO v Ccy AUTO v Id 22629
Туре	SETTLE v SubType v Auto/Template Acc
External Name	CAXXV_P_529900CCRKH13W8EF49I Q Interface Rule Aggregate V Key Value
	CCP_Account_Reference EUREX
Description	22630 Clearing Book CAXXV P_NDF 360T CLIENT_CLEARING@CCP
Logal Entity (E2)	ClearingCashAccount V False
Legal Linuty (F2)	LOREA Nor Agent Description Clearing
Creation Date	7/2/20 5:10:23 AM Create by Acc Engine only Multi-Owner InitialMarginAccount CAXXV_P
	MWsrcSysClientId =
Closing Account	··· Last Closing Date MWsrcSysLEId
	PRODUCT_TYPE
Parent Account	Parent Id 0 Product_Account_Reference NDF v
External Settl.	External Cash Account

To mirror clearing accounts, user has to mention the Account ID in Description tag as below



Account Account	t Utilities Re Statements A	eports Process Help ttributes Interests Limits Consolidation Translation/Revaluation Legal Entities Clearing Brow	/se		
	Account Name	CAXXV NDF 360T HOUSE@MSPO-EUREX			
	Processing Org	MSPO   Ccy AUTO   Id 22630			
	Туре	SETTLE V SubType V Auto/Template Acc	××		
	External Name	CAXXV_P_5299000CRKH13W8FF45LTQ Interface Rule Appreciate	, Key	Value	<b>*</b>
			CCP_Account_Reference	e EUREX	_
	Descriptio <mark>n</mark>	22629	Clearing Book	CAXXV P_NDF 360T CLIENT_CLEARING@CM	MF
			ClearingCashAccount	✓ False	
L	.egal Entity (F2)	ICICI Role CounterParty V	Description		
	Creation Date	7/2/20 Et 11:27 AM	InitialMarginAccount	CAXXV_P	
	Creation Date	1/2/20 3.11.37 AM	MWsrcSysClientId		
	Closing Account	Last Closing Date	MWsrcSysLEId		
			PRODUCT_TYPE		
	Parent Account	Parent Id 0	Product_Account_Refer	rence NDF	$\sim$
	External Settl.	External Cash Account			

The above clearing account is for the NDF trades booked via 360T, hence, the source system LE ID will be different when compared with clearing A/c for NDF trades which are booked from any other source system than 360T. (Currently, Eurex only supports NDF trade booking from 360T)

However, if the source LE ID in 360T is similar to any other source system then the external names will be same and one clearing A/c for NDF trades should suffice.

# 3.4 FpML Mapping

Eurex messages are FpML based hence all the mappings related to Holidays, Day Count, Date Roll and so on has to be present in the Calypso Mapping Window under Source FpML.

The Source Eurex will contain only Eurex specific mappings like the legal entity attribute to look up as shown below.

Zalypso Mapping Window (User: calypso_user)		
Interface Mappings InterfaceName ATEO CME CME CMDER Eurex Translator PartyldLEAttribute	Name: Interface Value: Calypso Value: Reverse Default:	Eurex/Translator PartyIdLEAttribute EurexParticipant
A Calypso Mapping Window	- 10	
Interface Mappings InterfaceName CME CME ETD Eurex Subscruting wethod ExternalReference KeywordName ProductType CrossCurrencySwap	Name: Interface Value: Calypso Value: Reverse Default:	Eurex/ProductType CrossCurrencySwap SwapCrossCurrency



Interface Mappings	1	
InterfaceName	Name:	Eurex/RelatedProductType
BloombergEIT		
. ⊕ □ CME	Interface Value:	XCCY
DSMatch	Calvpso Value:	FX
ETD ETD		
Eurex	Reverse Default:	
DiscountingMethod		
Externalkererence	bbA >>	
KeywordValue	( serial	
	>> Remove	
RelatedProductType		r
XCCY	Configure Interf	
Translator		

This mapping is used in Exchange feed in trade keyword RelatedProductType. This keyword matches with the Eurex Clearing Account attribute Product\_Account\_Reference to locate the correct Clearing Account.

Calypso Mapping Window (User: calypso_user)
Calypso Mapping Window (User: calypso_user)     Calypso Mapping Window (User: calypso_user)     Column     Common Composition     Calypso Mapping Window (User: calypso_user)     Name:     FpML/DateRoll     Interface Value:     MODFOLLOWING     Calypso Value:     MOD_FOLLOW     Reverse Default:     Calypso Value:     MOD_FOLLOWING     Calypso Value:     MOD_FOLLOWING     Calypso Value:     MODFOLLOWING     Calypso Value:     MODFOLLOWING     Calypso Value:     MOD_FOLLOWING     Calypso Value:     MOD_FOLLOWING     Calypso Value:     MOD_FOLLOWING     Calypso Value:     Mode Form     Calypso Value:     Configure Types     Calypso Value:     Configure Types </th

You can add the following mapping to disable the validation of the FpML version:

Name = FpML/Translator

Interface Value = SkipFpMLVersionValidation

Calypso Value = true

Tade keyword InstrumentUPI and product code UPI contain tag UPI if provided in Eurex file on CCP facing trade.



# Intraday Processing

After, completing the above setup, the user can then login to Markitwire via the Trader login and Cpty login. Calypso supports Incoming and Outgoing FPML messages for Eurex Clearing.

Incoming messages

- clearingAcknowledgement
- clearingRefused
- clearingStatus
- clearingConfirmed
- requestConsent
- consentAcknowledgement
- messageRejected

## Outgoing messages

requestClearing consentAcknowledgement consentGranted consentRefused messageRejected clearingAcknowledgment

## Markitwire

https://mw.uat.markit.com

## EUREX GUI

https://simulation.eurexclearing.com:9443/OTC\_GUI/#login

User should login to Eurex portal via with 2 users as it follows maker-checker process.

From the trade creation until the confirmed trade, calypso receives from Eurex as well as sends messages to Eurex which can be located in the Message report window.



<b>2</b> C	Users'	vlichaelChan(Calypso)/ncomingFeed_eurextest151_151019.log - Notepad++	
File	Edit	🔺 Message Report (8/20/19 8:13:17 AM) / Feed I/O - 🗆 X	
0	2 101	Report Data View Export Market Data Process Utilities Help	
19	pressi		mingFeed_eurextest151_15101
178	9 2	Offeria	dcastAddress]) [-]
	pi ei	ORIGINAL_DATE MESSAGE_ID Msg Linked Id Msg Status MESSAGE_TYPE Msg_Attr./MessageType Msg_Attr./Upload/ObjectExternalRef Trade Id GATEWAY Message L	from Route:
	11 21 11	R/20/19 8:27-47.800 AM PDT         1263588         0.COMPLETED_INCOMINGEEDMSG_RequestConsent         EUREXCLIENT_2513641         402432         CALYPSO           R/20/19 8:27-40.648 AM PDT         1263585         0.COMPLETED_INCOMINGEEDMSG_RequestConsent         EUREXCLIENT_2513636         402430         CALYPSO           R/20/19 8:27-40.648 AM PDT         1263584         0.COMPLETED_INCOMINGEEDMSG_RequestConsent         EUREXE_2513636         402430         CALYPSO           R/20/19 8:27-40.648 AM PDT         1263584         0.COMPLETED_INCOMINGEEDMSG_RequestConstent         EUREXE_251378         401934         CALYPSO           R/20/19 8:27-40.648 AM PDT         1263583         0.COMPLETED_INCOMINGEEDMSG_Request.constent         EUREXE_251378         401934         CALYPSO           R/20/19 8:27-40.648 AM PDT         1263583         0.COMPLETED_INCOMINGEEDMSG_Request.constent         EUREXE_25137640         402431         CALYPSO	exchangeId :
179	0 20 pr		dcastAddress]) [-]

For more details on the trade booking, user should refer the Eurex Clearing Training video on Calypso learning services as well as can refer below QA use case.

For the complete exchange feed set up guide, user should refer Exchange Feed Integration Guide on the Internal Documentation site

## 360T Login Process

To install 360T in the system, we only require latest Java version installed in the machine.

Click on the following link to install the web application - https://tex-int.360t.com/bridge-tex.jnlp

Post-installation, user will see the application installed on the Deskstop. Double-click on the icon to launch the system.

Apart from trade booking process for FX / NDF trades, we also see that FX /NDF trades are auto-cleared in Eurex, hence, we don't see the take-up message flow for FX / NDF trades like Swap & XCCY trades.

Once the trades are booked in 360T and pass the pre-check in 360T itself, trade is auto-cleared and available in Cleared trades tab with verified status. It is then eligible for PTE events and follows a similar process to XCCY / IRD.

NDF trade is received via the FPML message and can be checked in the message report tab as below:



NDF trades are auto-cleared, thus, they do not follow the take-up process and we directly receive the FPML trade message with trade status as BS\_WAIT\_MARGIN followed by message with trade status VERIFIED.

Below is the image for Calypso Upload Document that is created at the back of the received FPML message.











### Trade Browser

🥖 Trade Browser / Tra	ade Brows	er													-	٥	Х
Report Data View	Export	Market Data	Process Utilities	Help													
🖬 🔍 📑 🎒																	
📑 Criteria																	
Entered Date	Trade Id	CCPTradeID	External Reference	Mirror Trade Id	TradeRole.CounterParty	Product Description	TradeStatus	Product Type	Principal Amount	Product Currency	Book	CCP	TRADE_KEYWORD.RelatedProductType	CCPClearedDate	CCPAcco	untReferen	ce
Mar 10, 2021 11:32 PM	418437	2902345	2902343	418436	HOUSELE	FXNDF/USD/BRL/03/18/2021	VERIFIED	FXNDF	1.00	BRL	HouseBook2	EUREX	NDF	03/11/2021	CALXV_P	549300GG	RJHP6
Mar 10, 2021 11:32 PM	41843	2902345 📁	2902343	418437	EUREX	FXNDF/USD/BRL/03/18/2021	VERIFIED	FXNDF		BRL	HouseBook1	EUREX			CALXV_P	549300GG	R)HP6
Mar 10 2021 06-21 AM	418435	2002014	2002012	418434	LINNISELE	FYNDE/USD/RRI /03/17/2021	VERIEIED	EYNDE	1.00	RPI	HouseRook?	FUREY	NDE	03/10/2021	CALVV P	54030000	RIHPER



	FXNDF			Trade Id $ \sim $ 41843	6			Status	: VERIFIE	D		/	🖌 🎌 🐥 📀	11:47:41 F	M					X
		Trade T	Гуре		Buy/Sell			Ccy Pai	r			Bo	ook				Ir	nternal Boo	ok	
NDF					Sel		U	JSD/BRL		~		HouseBo	ook1	$\sim$			Hou	seBook2		~ I
Ссу	USD	Tr	aded Am	t	-12,400.00	Date	(	03/22/202	1 5	pot		5.6761	Margin			0.00	\$	USD		BRL
					70,000,04				_			0.00	ril				Near	0.3	2870	0.32870
		U	ther Amt		70,383.64				Р	oints		0.00	Final		5.67	6100		USD		BRL
									Tr	ader		5.676100					Near	-12,3	99.21	70,379.14
	Sett	e Ccy	USD		Rese	t	BRL01				~	03/18/2021								
		•																		
-	Settle Q	ianto Ccy	·		Quanto F	Reset					~	03/10/2021								
Con	ments						Ĵ F	inal Ma	rgin:			0.00					Limits	SAV	E(F5)	NEW(F6)
	ades (A)	Positions	(A) Trade	es (P) Positions (P)	A Risk Tree	Factors					Detai	ls				Keyword	s			
						- detero		-			Curre	nt Trade Dt			^	Q- Filter	r Keyword	s	<u> </u>	show populated
BO	DK .	CCY Pair	Neg. CCY	Primary Amount	Quoting Amount	Neg. R	ate ID	Type	Product	Counte		ettle Date	3/11/2021 5:0	00:00 AM		Busine	ssFlow	FCM		^
Hou	ISEBook1	USD/BRL	USD	-12,400.00	70,383.6	4 5.6	761 418436	7-1	FXNDF	EUREX	Far A	It.Settle Dt				CCP		EURE	х	
HOL	ISEBOOK2	USD/BRL	USD	12,400.00	-70,383.6	4 5.0	761 <mark>418437</mark>	Internal	FXNDF	HOUSE	Trade	er	NONE			CCPAc	countRefer	ence CAL)	(V_P_5493	00GGRJHP
											Mirro	r Trader				CCPCle	aredDate	03-11	1-2021	
											Sales		NONE			CCPCle	aredDatetin	ne 2021	-03-11T08	32:13.884+
											Broke	r				CCPCo	ntractualDe	finitions CC		
											Role		CounterParty			CCPEX	ecution I ime	stamp 2021	-03-11107	32:11.000+
											Action	1	ABANDON			ССРМа	sterAgreen	ient CC		
											Interr	nal Ref.				CCPMe	ssagelimes	stamp 2021	-03-11108	32:14.296+
											Exter	nal Ref.	2902343			CCPMe	ssagerype	Trade	enotificatio	n
											Domi	ciliation				CCPON	gincode	HOUS	SE	
											Bundl	е Туре				CCPPro	ductSub i y	pe FXNL		0000000
											Bundl	e Name				CCPSR	System	5493	UUGGRJHF	00002325
											Reser	ve				COPSIE	hmittedEcrC	learin 2024	03 11T09	32-12.000+
											CLS					CONTR	uniteur of C	ourill 2021	246	32.12.000*
1										>	Prime	Broker				COPINE	Dole	2902 Prop	J4U	
<u> </u>											Produ	ict Code	Product	t Code		CLS	NUID	Flop		
	Speed Fr	try 🔶 Po	uting Rate	e Reset Quanto Rat	e Reset						Trade	e Platform	Calypso		$\sim$	Control	tor	Taise	VED	~
		1 1 1 1 1 1 1 1 1 1	uting read	Quanto Hai																

## 🛃 Keywords

 $\times$ 

eywords	
L	Show popula
BusinessFlow	FCM
CCP	EUREX
CCPAccountReference	CALXV_P_549300GGRJHP6BG62325
CCPClearedDate	03-11-2021
CCPClearedDatetime	2021-03-11T08:32:13.884+01:00
CCPContractualDefinitions	CC
CCPExecutionTimestamp	2021-03-11T07:32:11.000+01:00
CCPMasterAgreement	CC
CCPMessageTimestamp	2021-03-11T08:32:14.296+01:00
CCPMessageType	TradeNotification
CCPOriginCode	HOUSE
CCPProductSubType	FXNDF
CCPSrcSysLEld	549300GGRJHP6BG62325
CCPStatus	Cleared
CCPSubmittedForClearingTimeStamp	2021-03-11T08:32:12.000+01:00
CCPTradeID	2902345
CCPWFRole	Prop
CLS	false
Connector	EUREXEB
DisableTradeRouting	false
FarLegPrecision	FarLegForwardPointDecimals=2,FarLegFinal
FpMLVersion	5-6
IS_CLIENT	false
IncomingMessageStatus	VERIFIED
IsPrimaryQuotingPositive	False



Post clearing, Cleared trade is eligible for below PTE events which are initiated from the Eurex Clearing GUI.

Trade transfer Trade Amendment Account Transfer Netting / Accumulation Termination PTE Rejection

NDF PTE events also follow the maker-checker process where every PTE is authorized by the checker for the PTE event to be processed.

Once the clearing process starts, from the trade creation until the confirmed trade, calypso receives messages from Eurex as well as sends messages to Eurex until the clearing process is complete. All the messages can be located in the Message report window. This message flow is similar to IRD, XCCY, FX except that NDF and FX trades are auto-cleared so no take-up process is followed.

## Below is sample flow for Trade Termination:

Terminate the trade in Eurex.

Trade moves to Trade Status : TO\_BE\_TERMINATED and event status as 'authorization\_pending' from User : CALXVCLR002 GUI and moves to event status as 'authorization required' in CALXVCLR001 GUI ( maker -checker process).

Trade moves to 'Pending\_PTE' in Trade Browser as below:

🦽 Trade Browser / Tr	ade Brow	ser													- 0
Report Data View	Export	Market Data	Process Utilities	Help											
🖬 🕵 🖷 🗃															
📑 Criteria															
Entered Date	Trade Id	CCPTradeID	External Reference	Mirror Trade Id	TradeRole.CounterParty	Product Description	TradeStatus	Product Type	Principal Amount	Product Currency	Book	CCP	TRADE_KEYWORD.RelatedProductType	CCPClearedDate	CCPAccountRef
Mar 10, 2021 11:32 PM	418433	2902345	2902343	41843	HOUSELE	FXNDF/USD/BRL/03/18/2021	PENDING_PTE	FXNDF	1.00	BRL	HouseBook2	EUREX	NDF	03/11/2021	CALXV_P_54930
Mar 10, 2021 11:32 PM	418436					FXNDF/USD/BRL/03/18/2021	PENDING PTE	FXNDF			HouseBook1				CALXV_P_54930
Mar 10, 2021 06:21 AM	419429	2002014	2002012	419424	LINISELE	EVNDE/USD/BPI/02/17/2021	VEDIETED	EVNDE	1.00	DDI	HouseBook2	EUREY	NDE	02/10/2021	CALXV/ P 54930

In message report, we see Termination granted message and Trades are Terminated in Trade Browser.

📑 Criteria															
Entered Date	Trade Id	CCPTradeID	External Reference	Mirror Trade Id	TradeRole.CounterParty	Product Description	TradeStatus	Product Type	Principal Amount	Product Currency	Book	CCP	TRADE_KEYWORD.RelatedProductType	CCPClearedDate	CCPAccountReference
Mar 10, 2021 11:32 PM	418437	2902345	2902343	418436	HOUSELE	FXNDF/USD/BRL/03/18/2021	TERMINATED	FXNDF	1.00	BRL	HouseBook2	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJHP6B
Mar 10, 2021 11:32 PM	418436	2902345	2902343	418437	EUREX	FXNDF/USD/BRL/03/18/2021	TERMINATED	FXNDF	1.00	BRL	HouseBook1	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJHP6B
March 10, 2021 07-21 444	******	2002014	2002012		upurrur.	investigation intervision	a concerno	maine	1.00	1001	here and the second sec	mummy.	unr.	0010010000	CAUSAL D. CASSOSCONUSCO

Similarly, user can also perform PTE: Trade Amendment. In this event, user can only split the trades (notional should match the original trade, it cannot be amended) and internal reference can be changed.

For example, below trade is for notional 3000 which has been split in 2 shapes : 1000 and 2000 resp.



	FXNDF			Tra	de Id 🗸 <mark>41843</mark> :	5			Status:	PENDING	_PTE		1	1 🕆 🔆 📀	12:31:56	AM			-		1
		Trade	Туре			Buy/Sell			Ccy Pai	r			Boo	ok				Inter	nal Boo	k	_
NDF					2	Buy			USD/BRL		~		HouseBo	ook2	~			HouseBo	ook1		~ I
Ссу	USD	1	raded A	mt		3,000.00	Date		03/19/202	1 5	ipot		5.74385	Margin			0.000	\$	USD		BRL
_			Othor An	nt		-17 231 55					ointe		0.00	Final		5 743	19500	Near	0.31	1704	0.31704
1				inc.		-17,251.55					onites		0.00	rinai		3.7 %	0000		USD		BRL
										Tr	rader		5.7438500					Near	2,999	.82	-17,230.49
•	Sett	le Ccy	USD		,	~ Res	et	BRL01				~	03/17/2021								
	Settle Qu	uanto Co	y		,	Quanto	Reset					~	03/11/2021								
Con	ments							\$	Final Mar	rgin:			0.00					Limits	SAVE	(F5) N	EW(F6)
	rados (A)	Position		doc (F	Positions (P)	O Pick Tree	Eactors					Details					Keywor	ds			
	iddes (H)	1 USICION.	3(4) 110	ides (i	) Tosicions (r)	USK HEE	Tuctors				_	Current T	rade Dt	L		^	Q- Filte	er Keywords		Shov	populated
Bo	ok	CCY Pair	Neg. Co	CY PI	rimary Amount	Quoting Amou	nt Neg.	Rate ID	Туре	Product	Counte	Trade Dat	te	3/10/2021 5	00:00 AM	- 11	Busin	lessFlow	FCM		
Hou	useBook2	USD/BRL	USD		3,000.00	-17,231	.55 5.7	74385 4184	35	FXNDF	HOUSE	Alt. Settle	Date ttlo Dt				CCP		EUREX	<	
Hou	useBook1	USD/BRL	USD		-3,000.00	17,231	55 5.7	74385 4184	34 Internal	FXNDF	EUREX	Trador	ille Di	NONE			CCPA	ccountReference	CALX	V_P_549300G	GRJHP
												Mirror Trz	ader	NONE			CCPC	learedDate	03-10-	-2021	
												Sales		NONE			CCPO	riginCode	HOUS	E	
												Broker		None			CCPS	itatus	Confin	mation	
												Role		CounterParty			CCPT	radelD	29020	14	
												Action		ACCEPT			CLS		false		
												Internal R	ef.				CMFA	AccountReference	14820	3	
												External R	Ref.	2902012			Disab	leTradeRouting	false		
												Domiciliat	ion				FarLe	egPrecision	FarLe	gForwardPoint	Decima
												Bundle Ty	pe				IS_CL	JENT	true		
												Bundle Na	ime				ISPrim	naryQuotingPositiv	e raise	Delet Desidentia	0 Final
												Reserve					Near	tistedCurreney	margin LIED	PointDecimais	so,rinal
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Mar 1	0, 2021 11:32	2 PM 41	8437 290234	5 2	902343	418436 HO	USELE	FX	NDF/USD/BRL/0	3/18/2021	TERMINATED	FXNDF		1.00 BRL	HouseBook	2 EUREX	NDF			03/11/2021	CALXV_P_54
Mar 1	0, 2021 11:32	2 PM 41	8436 290234	5 2	902343	418437 EU	REX	FX	NDF/USD/BRL/0	3/18/2021	TERMINATED	FXNDF		1.00 BRL	HouseBook	1 EUREX	NDF		0	03/11/2021	CALXV_P_54
Mar 1	0, 2021 06:21	AM 41	8435 290201		902012	418434 HO	USELE	FXI FXI	NDF/USD/BRL/0	3/17/2021	VERIFIED	FXNDF		1.00 BRL 1.00 BRI	HouseBook	2 EUREX 1 EUREX	NDF			03/10/2021	CALXV_P_54
Mar 1	0. 2021 04:35	5 AM 41	8433 290200	0 2	901998	418432 HO	USELE	FX	NDF/USD/BRL/0	3/17/2021	TERMINATED	FXNDF		1.00 BRL	HouseBook	2 EUREX	NDF		0	03/10/2021	CALXV P 54

Post Trade amendment confirmation, trade moves in 'authorization\_required' which is followed by maker -checker process to authorize the PTE.

In parallel, we see the original trade terminated and new trades created in the system with the split notionals as below:

Entered Date	Trade Id (F)	CCPTradeID	External Reference	Mirror Trade Id	TradeRole.CounterParty	Product Description	TradeStatus	Product Type	Principal Amount	Product Currency	Book	CCP	TRADE_KEYWORD.RelatedProductType	CCPClearedDate	CCPAccountReference
Mar 11, 2021 12:33 AM	41844	1 2902348	2902348	418440	HOUSELE	FXNDF/USD/BRL/03/17/2021	VERIFIED	FXNDF	1.00	BRL	HouseBook2	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJF
Mar 11, 2021 12:33 AM	41844	0 2902348	2902348	418441	EUREX	FXNDF/USD/BRL/03/17/2021	VERIFIED	FXNDF	1.00	BRL	HouseBook1	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJF
Mar 11, 2021 12:33 AM	41843	9 29 02 34 7	2902347	418438	HOUSELE	FXNDF/USD/BRL/03/17/2021	VERIFIED	FXNDF	1.00	0 BRL	HouseBook2	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJF
Mar 11, 2021 12:33 AM	41843	8 29 02 347	2902347	418439	EUREX	FXNDF/USD/BRL/03/17/2021	VERIFIED	FXNDF	1.00	0 BRL	HouseBook1	EUREX	NDF	03/11/2021	CALXV_P_549300GGRJF
Mar 10, 2021 06:21 AM	41843	5 2902014	2902012	418434	HOUSELE	FXNDF/USD/BRL/03/17/2021	TERMINATED	FXNDF	1.00	0 BRL	HouseBook2	EUREX	NDF	03/10/2021	CALXV_P_549300GGRJF
Mar 10, 2021 06:21 AM	41843	4 2902014	2902012	418435	EUREX	FXNDF/USD/BRL/03/17/2021	TERMINATED	FXNDF	1.00	0 BRL	HouseBook1	EUREX	NDF	03/10/2021	CALXV_P_549300GGRJF

Criteria



<u>_</u> !	FXNDE	Т	rade Id $  imes $ 41844:	1		Status:	VERIFIED			💋 🎌 🐇 📀	1:14:49 AM	I		- 0	X
		Trade Type		Buy/Sell		Ccy Pair			Bo	ok			Inter	nal Book	
NDF				Buy		USD/BRL	~		HouseBo	ook2	~		HouseBo	ok1	~ []
Ссу	USD	Traded Amt		1,000.0 <mark>0</mark>	Date	03/19/2021	Spot		5.74385	Margin		0.000	\$	USD	BRL
		Other Amt		-5,743.85			Points		0.00	Final		5.7438500	Near	0.31/04	0.31/04
							Trader	r	5.7438500				Near	999.94	-5,743.50
	0-HI-	0				201.01			02/17/2021						
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								Mirr	or Trader	NONE			CCPOriginCode	HOUSE	
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								Inte	rnal Ref.	ABANDON			CMFAccountReference	148203	
								Exte	rnal Ref.	2902348			FarLeoPrecision	false FarLeoForwar	rdPointDecima
								Bun	dle Type				IS_CLIENT	true	
								Bun	dle Name				IsPrimaryQuotingPositive NearLeoPrecision	e False MarginPointDer	cimals=3 Final
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<u>_</u>	FXNDF	Т	rade Id 🗸 41843	19		Status:	VERIFIED			🗡 🎌 🏅 🗸	1:15:30 AM	4			X
NDE		Trade Type		Buy/Sell		Ccy Pair			Bo	lok			Inter	mal Book	
NUP				BUY		USD/BRL	<u> </u>	L	Houses	00K2			Houses	DOKI	× <b>L</b>
Ссу	USD	Traded Amt		2,000.00	Date	03/19/2021	Spot		5.74385	Margin		0.000	Near	USD 0.31704	BRL 0.31704
		Other Amt		-11,487.70			Points	5	0.00	Final		5.7438500		USD	BRL
							Trade	r	5.7438500				Near	1,999.88	-11,486.99
	Settle	Ccy USD	,	∼ Re	set	BRL01		~	03/17/2021						
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# **EOD Processing**

# 5.1 EOD Reports from EUREX CCP

EUREX reports House and Client trade details in one report. However, trade details/ margin requirements are segregated by Clearing Member (CM) and Client: Registered Customer (RC).

CM is denoted by membID 'CALXV' and RC is reported by CAXXV, CAYXV, CAXYV, etc.

Further, account structure reported under CM as well as RC is P, A1-A9 where P stands for Prop A/c and A1-A9 is for its Client A/c's.

Also, Eurex has segregated products under Liquidation Groups in every file.

IRS product in Liq. Grp. PFI01 XCCY & FX (FX Swap, FX Forward, FX Spot) product in Liq. Grp. PFX01 NDF product in Liq. Grp. PNF01

#### Example:





## Initial Margin EOD Reports

85RPT**CC204**CALXV20191203.XML

01RPT**CC750**CALXV20191204CALXV.XML

01RPTCI050CALXV20191205CALXV.XML

**Note**: System 1<sup>st</sup> looks for CC204, if this file is NA then it will look for CC750. Further, even CC750 is NA the system will pick up Cl050.

Liquidation Group in CC750 and Cl050 are different from CC204

IRS product is reported in OTCBE or PFI01 XCCY and FX product is reported under OTCFE or PFX01 NDF product is reported under **OTCNE or PNF01** 

If "OTCBE" is found that means client is not Prisma client and is not doing cross margining so process its IM, If OTCBE is NOT found then IM will be reported in Grp PFI01 which indicated client is doing cross margining.

Similar, logic is applied for FX / NDF product, i.e. If "OTCFE" (for FX) and "OTCNE" (for NDF) is found that means client is not Prisma client and is not doing cross margining .

Therefore, If OTCFE is NOT found then IM will be reported in Grp PFX01 / if OTCNE is NOT found then IM will be reported in Grp PNF01 which indicates client is doing cross margining.

Example:

CM details in CC750/ Cl050

```
<cc750Grp1>
   <cc750KeyGrp1>
    <membExchIdCod>CALXV</membExchIdCod>
     <membExchIdNam>MORGAN STANLEY PO</membExchIdNam</pre>
   </cc750KeyGrp1>
   <cc750Grp2>
     <cc750KeyGrp2>
      <currTypCod>EUR</currTypCod>
     </cc750KeyGrp2>
     <cc750Grp3>
       <cc750KeyGrp3>
         <acctTypFlexible>A1</acctTypFlexible>
       </cc750KeyGrp3>
       <cc750Rec>
         <mgnClsCod>OTCBE</mgnClsCod>
         <mgnPremiumAmnt>0.00</mgnPremiumAmnt>
         <mgnLiqDlvAmnt>0.00</mgnLiqDlvAmnt>
         <mgnSprdAmnt>0.00</mgnSprdAmnt>
Or
```

RC details in CC750 / Cl050





In similar pattern, OTCNE and PNF01 are reported in Cl050 report.

Along with the IM/ TV files, to source segregation ID file CD298 is mandatory file for translation. Translate ST will fail if this file is missing.

## 85RPTCD298CALXV20191203.XML



#### CD298 sample



The system is configured to identify the membid and A/c in CC204/ CC203 and then search for the same combination in CD298. Once that is located, it will pick up the SegregationID from the resp tag as mentioned in above image.

CDML first tries to match srcSysLEId with MarkitWireId and retrieve Segregation A/c.

If srcSysLEId does not match MarkitWireId, it tries to match srcSysLEId with globalLEId and retrieve Segregation A/c.

If srcSysLEId does not match with either an error is raised.

## Trade Valuation EOD Reports

85RPTCC203CALXV20200128.XML

85RPTCD220CALXV20191203.XML

CD220 is for XCCY, FX and NDF trades to source Coupon, Upfront fees, FX Cashflows, NDF Cashflows

Segregation ID should be mentioned on the IM MCC as below:





A Margin Call Window - Version - 6									
Margin Call Config Util Help									
Edit Browse									
Name :	ICICI_EUREX_CAXXV_P IM	46001 6	Subtype	Master	$\sim$				
Description :	ICICI_EUREX_CAXXV_P IM		Parent :						
Parties Details D	ates & Times Exposure Groups Initial	Margin Independent Amount	Eligibility	Concentration & Limits	Optimization	Configurations	Ratings	Additional Info	
Comment:									
🛅 ĝi 💼 📫 t	4								
Others ACCOUNT_NAME ALWAYS_ROUND CCP CCP_ORIGIN_CO CCP_REFERENCE CCP_CCP_CCP_CCP_CCP_CCP_CCP_CCP_CCP_CCP	E _RETURN_MARGIN DDE E_CME E_CCH							EUREX CLIENT CAXXV_P	
CCP_SEGREGAT	ION_ACCOUNT NT_TYPE						_	CAXXVXCALXVS	EG

Points to note in Trade Valuation file:

Upfront fee and coupon are denoted in the files with below tags:

OTC FEE PAYMENT RECEIVED

OTC FEE PAYMENT PAID

OTC COUPON PAID

OTC COUPON RECEIVED

FX Cashflows are denoted in the files with below tags

OTC FX SOLD or OTC FX PAID: represent FX payment

OTC FX RECEIVED or OTC FX BOUGHT: represent FX received

NDF Cashflows are denoted in the files with below tags

NDF SETTLEMENT PAID

NDF SETTLEMENT RECIEVED

Upfront fee / Coupon / FX cashflows will only be sourced when the below cashflow dates are greater than the filedate by 1 (default lag at the back end) and settlement tag is 'PaymentInstructed'

Therefore, if filedate is 09/09 and cashflow date is 09/10 then the upfront fee / coupon / FX cashflows will be captured.





```
accuryperp name="A1">
currTypCod value="EUR">
cashFlowDate value="2019-09-10">
trnTyp type="OTC COUPON PAID">
CCPTrade Id="2266293">
subtotal value="-10769.50"/>
/trnTyp>
trnTyp type="OTC FEE PAYMENT RECEIVED">
CCPTrade Id="2266299">
Leg>FloatPay</Leg>
idxName>EURIBOR</idxName>
idxTenor>6M</idxTenor>
idxSource>EURIBOR01</idxSource>
preSrcSysTradeId>33113094</preSrcSysTradeId
srcSysTradeId>33113101</srcSysTradeId>
srcSysGroupId>33113094</srcSysGroupId>
srcSysLEId>CALEUREXLXV</srcSysLEId>
tradeRefId>33113094-2</tradeRefId>
oldTradeRefId>33113094-2</oldTradeRefId>
effectiveDate>2017-02-27</effectiveDate>
maturityDate>2022-02-28</maturityDate>
CFNPV>12048.17</CFNPV>
setlAmnt>12032.22</setlAmnt>
settlement>PaymentInstructed</settlement>
setlLoc>TARGET2</setlLoc>
            - - - ----
```

NDF Cashflows are reported as below:

i	NUCCAI VALACT VEREEN.VE XN/ COCAIX
	-
1	<pre>cashFlowDate value="2020-12-31"&gt;</pre>
+	<pre><trntyp type="NDF SETTLEMENT PAID"></trntyp></pre>
1	<ccptrade id="2858056"></ccptrade>
	<leg></leg>
	<idxname></idxname>
	<idxtenor></idxtenor>
	<idxsource></idxsource>
	<presrcsystradeid></presrcsystradeid>
	<pre><srcsystradeid>49713663</srcsystradeid></pre>
	<pre><srcsysgroupid>49713663</srcsysgroupid></pre>
	<pre><srcsysleid>549300GGRJHP6BG62325</srcsysleid></pre>
	<pre><traderefid></traderefid></pre>
	<pre>cashFlowDate_value="2020-12-31"&gt;</pre>
	e <trntyp type="NDF SETTLEMENT RECEIVED"></trntyp>
	⊖ <ccptrade id="2858056"></ccptrade>
	<leg></leg>
	<idxname></idxname>
	<idxsource></idxsource>
	<presrcsystradeid></presrcsystradeid>
	<pre><srcsystradeid>49713663</srcsystradeid></pre>
	<pre><srcsysgroupid>49713663</srcsysgroupid></pre>
	<pre><srcsysleid>549300GGRJHP6BG62325</srcsysleid></pre>
	<traderefid></traderefid>

However, if any Clearing transfer settle lag is set in the Ccy defaults then cashflow date will be captured with that difference in the filedate

E.g. Fee cashflow date is 11/09 and settlelag is updated as 2 then coupon will be captured when the filedate is 09/09.



```
vireproundaters
<acctTypGrp name="A1">
currTypCod value="EUR">
阜<cashFlowDate value=<mark>"2019-09-11"</mark>>
trnTyp type="OTC COUPON PAID">
CCPTrade Id="2266293">
 <subtotal value="-10769.50"/>
 </trnTyp>
trnTyp type="OTC FEE PAYMENT RECEIVED">
<Leg>FloatPay</Leg>
 <idxName>EURIBOR</idxName>
 <idxTenor>6M</idxTenor>
 <idxSource>EURIBOR01</idxSource>
 <preSrcSysTradeId>33113094</preSrcSysTradeId>
 <srcSysTradeId>33113101</srcSysTradeId>
 <srcSysGroupId>33113094</srcSysGroupId>
 <srcSysLEId>CALEUREXLXV</srcSysLEId>
 <tradeRefId>33113094-2</tradeRefId>
 <oldTradeRefId>33113094-2</oldTradeRefId>
 <effectiveDate>2017-02-27</effectiveDate>
 <maturityDate>2022-02-28</maturityDate>
 <CFNPV>12048.17</CFNPV>
 <setlAmnt>12032.22</setlAmnt>
 <settlement>PaymentInstructed</settlement>
 <setlLoc>TARGET2</setlLoc>
```

FX cashflows are reported as below:

```
</trnTyp>
<trnTyp type="OTC FX PAID">
<CCPTrade Id="2523142">
<Lea></Lea>
<idxName></idxName>
<idxTenor></idxTenor>
<idxSource></idxSource
<preSrcSysTradeId>48429510</preSrcSysTradeId>
<srcSysTradeId>48429550</srcSysTradeId>
<srcSysGroupId>48429510</srcSysGroupId>
<srcSysLEId>MEGACALPCC</srcSysLEId>
<tradeRefId>48429510-2</tradeRefId>
<tradeRefIdCM>48429510-2</tradeRefIdCM>
<tradeRefIdRC></tradeRefIdRC>
<oldTradeRefId>48429510-2</oldTradeRefId>
<effectiveDate>2019-09-16</effectiveDate>
<maturityDate>2020-09-16</maturityDate>
<cfnpv>-80982473.17</cfnpv>
<setlAmnt>-81000000.00/setlAmnt>
<settlement>NotSettled</settlement>
<trnTyp type="OTC FX RECEIVED">

 <CCPTrade Id="2747245">
 <Leg></Leg>
 <idxName></idxName>
 <idxTenor></idxTenor>
 <idxSource></idxSource>
 <preSrcSysTradeId>53741611</preSrcSysTradeId>
 <srcSysTradeId>53741935</srcSysTradeId>
 <srcSysGroupId>53741611</srcSysGroupId>
 <srcSysLEId>MEGACALPCC</srcSysLEId>
 <tradeRefId>53741611-2</tradeRefId>
 <tradeRefIdCM>53741611-2</tradeRefIdCM>
 <tradeRefIdRC></tradeRefIdRC>
 <oldTradeRefId>53741611-2</oldTradeRefId>
 <effectiveDate>2020-06-08</effectiveDate>
      miturota 2020_00_00/maturituro
```





-, cabini tombabo.	
<pre>cashFlowDate value="2020-12-21"&gt;</pre>	
<pre>G<trntvp tvpe="OTC FX BOUGHT"></trntvp></pre>	
E <ccptrade td="2750543"></ccptrade>	
<pre><pre>&gt;</pre>&gt;</pre>	
<idxname></idxname>	
<idytenor></idytenor>	
<idxsource></idxsource>	
<pre><rusbullee< pre=""></rusbullee<></pre>	
<pre><pre>cpresicsystraderd&gt;</pre></pre>	
<pre><srcsystradeid>42983848</srcsystradeid></pre>	
<pre><srcsysgroup1d>42983848</srcsysgroup1d></pre>	
<srcsysleid>549300GGRJHP6BG62325<td>APTEIG&gt;</td></srcsysleid>	APTEIG>
<traderefid></traderefid>	
<traderefidcm></traderefidcm>	
	3
(type)	
ExtrnTyp type="OTC FX SOLD">	
E <ccptrade id="2/5052/"></ccptrade>	
<leg></leg>	
<idxname></idxname>	
<idxtenor></idxtenor>	
<idxsource></idxsource>	
<presrcsystradeid></presrcsystradeid>	
<pre><srcsystradeid>42983256</srcsystradeid></pre>	d>
<pre><srcsysgroupid>42983256</srcsysgroupid></pre>	d>
<pre><srcsvsleid>549300GGRJHP6BG62325</srcsvsleid></pre>	SvsLEId>
<pre><traderefid></traderefid></pre>	
<pre><tradedefidcm></tradedefidcm></pre>	
<pre><traderefideaction></traderefideaction></pre>	
Currency Default      Currency Pairs Precious Metal Information	
Currency EUR ISO Code EUR Country	EUROPEAN UNION V
Spot Days 2 Holidays TARGET	
Currency Default	Attributes Window ELIR
Rounding NEAREST V Decimals 2	
DavCount ACT/360 V Def. Index E Name	Value
ClearingTransferSettleLa	a
Group	
FtpFundingIndexTenor	
Landler Burners Burners -	*
Location Europe/Brussels V W FundingIndex	
Location Europe/Brussels V FundingIndex FundingIndexTenor	· · · · · · · · · · · · · · · · · · ·
External Reference Euro W FundingIndex External Reference Euro	v eLag
External Reference Euro	eLag
Location         Europe/Brussels         W         FundingIndex           External         Reference         Euro         LCHClearingTransferSetti           LiquidityPremiumFloor         LiquidityPremiumIndex         LiquidityPremiumIndex           Settlement         Cut-Off         NC         LiquidityPremiumIndex	v leLag v
Location       Europe/Brussels       W       FundingIndex         External       Reference       Euro       LCHClearingTransferSetti         Settlement       Cut-Off       NC       LiquidityPremiumIndex         MarqinCallAdiLao       NC       NarqinCallAdiLao	v leLag v urce v
Location       Europe/Brussels       W       FundingIndex         External       Reference       Euro       LCHClearingTransferSettl         LiquidityPremiumFloor       LiquidityPremiumIndex       LiquidityPremiumIndex         Settlement       Cut-Off       NC       MaintonalAdjustMaiorIncree	v v v v v v v v v v v v v v v v v v v
Location       Europe/Brussels       W       FundingIndex         External       Reference       Euro       LCHClearingTransferSetti         LiquidityPremiumFloor       LiquidityPremiumIndex       LiquidityPremiumIndex         Settlement       Cut-Off       NC       NC         Trading       Cut-Off Time       NC       NotionalAdjustMajorIncre	v leLag v urce v iment ment

# 5.2 Scheduled Tasks Setup

Below is the CDML Translate ST used to import the CCP EOD reports into the system.





~	_							
Scheduled Task	Definition							
Use the dialog be and task specific	elow to define the a attributes. Schedu	ittributes for the t iling of the task is	ask to be executed. These attri performed using the Task Trig	ibutes will contro ger Definition dia	I the behavior of the task. There are two types of attributes, g log			
Task Description								
Task Type:	CLEARING_TRAN	ISLATE_TO_CDML	L					
External Reference:	EUREX CDML TR	EUREX CDML TRANSLATE EOD						
Comments:	EUREX CDML TR	ANSLATE EOD						
Description:	EUREY COML TR							
bescription.	EUREX COME TH							
Execution Parameters								
Attempts: 1	Retry After:	0 minute	es Expected Execution Time (	(SLA): 5	minutes			
JVM Settings: -Xm	s512m -Xmx1024m	-XX:MaxPermSiz	ze=256m					
Los Cattings UDI	OADED STATE EX	CERTION Sustan	aut Markitalina UDI OADED COL	IMC DeutersTOP	Pautampee ETV DEBUG VML LICTLOOKOUT Classing com ash			
Log Settings. , OFL	ONDER_STATS,EA	CEPTION, System.	out, Markitwire, of EOADER, SQL,	JMS, Reuters TOP	,Reater sb33,FIX_bebog_Ame,EI31E00R001,Cleaning,com.car			
Task Notification Option								
rabit rootineadorr option								
Send Emails	Publish Busines	ss Events To U	ser: 🗸 🗸					
Send Emails	Publish Busines	ss Events To U	ser: V					
Send Emails	Publish Busines	ss Events To U	ser: 🗸		25001			
Send Emails	Publish Busines	ss Events To U	ser: 🗸		25001 MSPO			
Send Emails	Publish Busines	ss Events To U	ser: v		25001 MSPO			
Send Emails	Publish Busines	ss Events To U	ser: v		25001 MSPO			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMDB			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone	Publish Busines	ss Events To U	ser: 🗸		25001 MSPO FROMDB America/New_York			
Send Emails	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMDB America/New_York 12			
Send Emails	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails	Publish Busines	ss Events To U	ser: 🗸		25001 MSPO FROMDB America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Hou Valuation Time Hou Undo Time Monte Hour Undo Time Minute	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Hour Undo Time Minute Valuation Date Offs	Publish Busines	ss Events To U	ser: 🗸		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Mou Undo Time Minute Valuation Date Offs From Days	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMDB America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Hour Valuation Time Minute Valuation Time Minute Valuation Date Offs From Days To Days	Publish Busines es t t ur ute	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Minute Valuation Time Minute Valuation Time Minute Valuation Time Minute Valuation Days Pricer Measures Pricer Measures	Publish Busines es t t ur ute et	ss Events To U	ser: V		25001 MSPO FROMDB America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Moir Valuation Time Moir Undo Time Hour Undo Time Meinute Valuation Date Offs From Days Pricer Measures Business Holidays	Publish Busines	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Mou Undo Time Hour Valuation Time Minute Valuation Date Offs From Days To Days Pricer Measures Business Holdays Task Attributes Base Eolder	Publish Businee ees t ur ute et	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade filter Filter Set Pricing Environmen Timezone Valuation Time Minute Valuation Time Minute Valuation Time Minute Valuation Time Minute Valuation Date Offs From Days To Days Pricer Masures Business Holidays Bask Attributes Base Folder OMI Procession	Publish Busines es t ur ute	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0			
Send Emails Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environmen Timezone Valuation Time Hour Valuation Time Hour Undo Time Minute Valuation Date Offs From Days Pricer Measures Business Holidays Task Attributes Base Folder CDML Processing Intraday	Publish Businer	ss Events To U	ser: V		25001 MSPO FROMD8 America/New_York 12 0 C:\calypso\gateway\ Generation plus Import False			

## CDML Process ST Setup

4		Scheduled Task Definition
Scheduled Task I	Definition	
Use the dialog bel across all tasks an	ow to define the attributes for the task to be executed. The d task specific attributes. Scheduling of the task is performed	e attributes will control the behavior of the task. There are two types of attributes, general attributes which are the same I using the Task Trigger Definition dialog
Task Description		
Task Type:	CLEARING_PROCESS_FROM_CDML	V
External Reference:	EUREX EOD PROCESS	
Comments:	EUREX EOD PROCESS	
Description:	EUREX EOD PROCESS	
Execution Parameters		
Attempts: 1	Retry After: 0 minutes Expected Execu	tion Time (SLA): 2 minutes
JVM Settings: -Xms5	12m -Xmx1024m -XX:MaxPermSize=256m	
Log Settings: JinCal	,UPLOADER_STATS,EXCEPTION,System.out,MarkitWire,UPL	JADER, SQL, JMS, Reuters I OF, ReutersDSS, FIX_DEBUG_XML, LISTLOOKOUT, Clearing, com. calypso. clearing.log. default,
Send Emails	Publish Business Events To User:	
Common Attribute	25	2524
Processing Org		2301
Trade Filter		1350
Filter Set		
Pricing Environment		FROMDB
Timezone		Europe/London
Valuation Time Hour		
Valuation Time Minut		
Undo Time Hour		
Undo Time Minute		
Valuation Date Offse	t	
From Days		0
To Days		0
Pricer Measures		
Business Holidays		NYC
Task Attributes		
CCP		EUREX
Clearing Service		IRD, FX, NDF
CDML Report Type		All
Process Mode		All



To process FX reports clearing service should be selected as FX along with IRD clearing service as highlighted above. To process NDF reports, you need to select NDF in the clearing service as well.

# 5.3 Post EOD File Processing

After the CDML ST are translated / processed, user should run the collateral manager and execute the margin calls.

After executing the margin calls, user has to run the ST for clearing statement which will summarize the margin requirements, cash balances, trading activity during the day, account activity details.

Below is a sample for Eurex XCCY EOD Processing / EUREX FX EOD Processing

Scheduled Task Definition Use the datage below to define the attributes for the task to be executed. These attributes will control the behavior of the task. There are two types of attributes, general attributes will across all uses and uses general attributes. Schedulary of the task is performed using the Task Trage Definition datage Task Development Task Type: LEARING_STATEMENT External Reference: MS PO-Clearing Statements Description: MS PO-	x
Let the datage below to define the attributes for the task to be executed. These attributes will control the behavior of the task. There are two types of attributes, general attributes wilch across at task specific attributes. Scheduling of the task is performed using the Task Trigger Definition datage Task Tripger (LEARJING_STATEMENT) External References	
Tak Decision Tak Type:	o types of attributes, general attributes which are the same
Task Type:       CLARAINE_STATEMENT         External Reference:       MS PO: Clearing Statements         Comments:       MS PO: Clearing Statements         Decorption:       MS PO: Clearing Statements         Execution Parameters       Immutes         Attempts:       Immutes         Discription:       Nms Statements         Execution Parameters       Immutes         Attempts:       Immutes         JVM Settings:       Annes 12m - Nmx Modern Avk Market Miler, UP ADADER, SQL, JMS, Reuters TOF, Reuters DSS, FLX, DEBUG, JML, LISTLOOKOUT, Clearing, com. calyson. clearing, log. default, Monitoring. Clearing         Log Settings:       Publish Business Events       To User:         Clent       MS HOUSE       Default         Layout Style       Default       MSPO_STMT_JRID NEW TRADES         New Trades for RISD       MSPO_STMT_JRID NEW TRADES       New Trades for RISDE         Open Trades for RISDE       MSPO_STMT_JRID NEW TRADES       New Trades for RISDE         Open Trades for RISDE       MSPO_STMT_JRID NEW TRADES       New Trades for RISDE         Open Trades for RISDE       MSPO_STMT_JRID NEW TRADES       New Trades for RISDE         Open Trades for RISDE       MSPO_STMT_JRID NEW TRADES       New Trades for RISDE         Termated Trades for RISDE       MSPO_STMT_JRID NEW TRADES_JRD	
External Reference: MS PO-Clearing Statements  Comments: MS PO-Clearing Statements  Eacodon Parameters  Attempts: I Refty Affer: 0 minutes Expected Execution Time (SLA); 5 minutes  JVM Settings: Mrs 512m - Ximx 1024m - XXCMax/RemSize = 256m Log Settings: EXCEPTION, System.out, MarketWire, UR CADER, SQL, MS, ReutersTOF, ReutersDSS, FJX, DEBUG, VM, LISTLOOKOUT, Clearing, com. calypso. clearing.log. default, Monitoring. ClentR  Send Emails Publish Business Events To User:  Clent Layout Style Default Mode Daily We Trades for IIS Demotion Code  Gene Trades for FIX MS CODE  Gene Trades for FIX M	V
Comments: MS PO-Clearing Statements Description: MS PO-Clearing Statements Execution Parameters Attempts: 1 Retry After: 0 minutes Expected Execution Time (SLA): 5 minutes JVM Settings: Vine512m -Vinx 1024m -Vix.Max/PermSize=256m Log Settings: EXCEPTION, System out, MarkitWire, LPLOADER, SQL, JMS, ReutersTOP, ReutersDSS, FJX, DEBUG, JVM, LISTLOOKOUT, Clearing, com. calypso. dearing log. default, Monitoring, Clearing Send Emails Publish Business Events To User:   Cleart Cleart Send Emails Publish Business Events To User:   Cleart Cleart Send Emails Publish Business Events To User:   Cleart Send Emails Publish Business Events Publish Business Publish Business Publish Business Publish	
Description:       MS PO-Clearing Statements         Execution Parameters       Attempts:       1       Retry After:       0       minutes       Expected Execution Time (SLA):       5       minutes         JVM Settings:       XmaS12m - Xmx 1024m - XX-Max/PermSize = 256m       Log Settings:       EXCEPTION, System.out, Mark/tWire, UPLOADER, SQL, JMS, ReutersTOF, ReutersDSS, F/L, DEBUG, JML, LISTLOOKOUT, Clearing.com. calvpool.dearing.log.default, Monitoring. Clearing         Task NetRication Oppore	
Execution Parameters  Attempts:  I Retry After:  Miseutions:  Attempts:  I Retry After:  Miseution:  Attempts:  I Retry After:  Miseution:  Attempts:  I Retry After:  Miseution:  Miseution:  Attempts:  I Retry After:  Miseution:  Miseution:  Miseution:  Miseution:  Attempt:  Retricted:  Attempt:  I Retry After:  Miseution:	
Detector Parameters       I Retry After: 0 minutes       Expected Execution Time (SLA): 5 minutes         JVM Settings:       JvmS12m -Xmx1024m -XX:MaxPermSize=256m         Log Settings:       EXCEPTION_System.out_MarkitWre_UPLOADER_SQL_MIS_ReutersTOF_ReutersDSS_FIX_DEBUG_VML_LISTLOOKOUT_Clearing.com.calypso.dearing.log.default_Monitoring.Clearing         Task Notification Options	
JVM Settings:       \vert State:::::::::::::::::::::::::::::::::::	
Log Setting: EXCEPTION,System.out,MarkitWire,UPLOADER,SQL,JMS,ReutersTOF,ReutersTOF,ReutersDSS,FIX_DEBUG_JML,LISTLOOKOUT,Clearing.com.calypso.dearing.log.default,Monitoring.Clearing Task Notification Options Send Emails Publish Business Events To User: V Cleari Layout Style Default Mode De	
Task Notification Options       Send Emails     Publish Business Events       To User:       Olent       Layout Style       Default       Mode       Daily       New Trades for TRXDF       New Trades for PADE       New Trades for PADE       Open Trades for PADE       Open Trades for PADE       Open Trades for FX       MSPO_STMT_FX NEW TRADES       New Trades for FX       Open Trades for FX       MSPO_STMT_FX NEW TRADES       Open Trades for FX       MSPO_STMT_FX NEW TRADES       Terminated Trades for FX       Matured Trades for FX       Matriad Trades for FX       Matured Trades for	, calvpso, dearing, log, default, Monitoring, ClientRequest
Task Notification Options         Send Emails       Publish Business Events       To User:         Client       MS HOUSE         Layout Style       Default         Mode       Daily         New Trades for IRS       MSPO_STMT_IRD NEW TRADES         New Trades for FNDF       MSPO_STMT_FX NEW TRADES         New Trades for FNDF       MSPO_STMT_FX NEW TRADES         Open Trades for FNDF       MSPO_STMT_FX NEW TRADES         Terminated Trades for FNS       MSPO_STMT_FX NEW TRADES         Terminated Trades for FNDF       MSPO_STMT_TERM_TRADES_IRD         Terminated Trades for FNS       MSPO_STMT_TERM_TRADES_FX         Matured Trades for FNS       MSPO_STMT_TERM_TRADES_FX         Matured Trades for FNS       MSPO_STMT_MATURED_TRADES_IRD         Matured Trades for FX       MSPO_STMT_MATURED_TRADES_IRD         Matured Trades for FNS       MSPO_STMT_MATURED_TRADES_IRD         Matured Trades for FX       MSPO_STMT_MATURED_TRADES_FX         Matured Trades for FX       MSPO_STMT_MATURED_TRADES_FX         Matu	
Send Emails     Publish Business Events     To User:       Client     MS HOUSE       Layout Style     Default       Mode     Daily       New Trades for IRS     MSPO_STMT_IRD NEW TRADES       New Trades for FXNDF     MSPO_STMT_FX NEW TRADES       New Trades for FXNDF     MSPO_STMT_FX NEW TRADES       Open Trades for FXNDF     MSPO_STMT_FX NEW TRADES       Open Trades for FXNDF     MSPO_STMT_IRD NEW TRADES       Open Trades for FXNDF     MSPO_STMT_RD NEW TRADES       Open Trades for FXNDF     MSPO_STMT_RD NEW TRADES       Open Trades for FXNDF     MSPO_STMT_RD NEW TRADES       Terminated Trades for FXNDF     MSPO_STMT_RD NEW TRADES_IRD       Terminated Trades for FXNDF     MSPO_STMT_TERM_TRADES_IRD       Matured Trades for FXNDF     MSPO_STMT_MATURED_TRADES_IRD       Matured Trades for FXNDF     MSPO_STMT_MATURED_TRADES_FX       Matured Trades for FXN     MSPO_	
Client     MS HOUSE       Layout Style     Default       Mode     Daily       New Trades for IRS     MSPO_STMT_IRD NEW TRADES       New Trades for FXNDF     MSPO_STMT_FX NEW TRADES       New Trades for FXNDF     MSPO_STMT_FX NEW TRADES       Open Trades for FXNDF     MSPO_STMT_IRD NEW TRADES       Open Trades for FXNDF     MSPO_STMT_FX NEW TRADES       Terminated Trades for FXNDF     MSPO_STMT_FX NEW TRADES_IRD       Terminated Trades for FXNDF     MSPO_STMT_TERM_TRADES_IRD       Terminated Trades for FXNDF     MSPO_STMT_TERM_TRADES_FX       Matured Trades for FXNDF     MSPO_STMT_MATURED_TRADES_IRD       Terminated Trades for FX     MSPO_STMT_MATURED_TRADES_IRD       Matured Trades for FX     MSPO_STMT_MATURED_TRADES_IRD       Matured Trades for FX     MSPO_STMT_MATURED_TRADES_FX       Matured Trades for CDX     MSPO_STMT_	
Layout Style Default  Mode Daily Mode Daily Mode Daily Mode Daily New Trades for IRS MORE New Trades for IRS MSPO_STMT_IRD NEW TRADES New Trades for FX MSPO_STMT_FX NEW TRADES Open Trades for FX MSPO_STMT_FX NEW TRADES Open Trades for FX MSPO_STMT_FX NEW TRADES Open Trades for IRS MSPO_STMT_FX NEW TRADES Terminated Trades for IRS MSPO_STMT_FX NEW TRADES Terminated Trades for IRS MSPO_STMT_TERM_TRADES_IRD Terminated Trades for FX MSPO_STMT_TERM_TRADES_FX Matured Trades for FX MSPO_STMT_MATURED_TRADES_IRD Matured Trades for FX MSPO_STMT_MATURED_TRADES_IRD Matured Trades for FX MSPO_STMT_MATURED_TRADES_FX Account Activity Template Collateral Allocation Template Collateral Allocation Template Collateral Allocation Template Collateral Allocation Template Collateral Context	^
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Name) Description)	¥
	🗖 Save 🛛 Cancel

Clearing Statement also updates FX Settlement cashflow tab / Eurex FX NPV cashflow tab / Eurex FX IM tab/ Trade details.

FX Settlement Tag includes FX and NDF cashflows.



## Clearing Cash Flows Summary

	EUR	GBP	USD	Total (USD)
Beginning Cash Balance	0.00	0.00	0.00	0.00
Commissions/Fees	0.00	0.00	0.00	0.00
PAI	-36.32	0.00	13.82	-18.50
Coupons	-138,076.67	0.00	0.00	-122,888.24
FRA Settlements	0.00	0.00	0.00	0.00
FX Settlements	0.00	-12,300.00	0.00	-12,054.00
Upfront Fees	-210,646.67	-1,230.00	0.00	-188,680.94
Credit Premium	0.00	0.00	0.00	0.00
Credit Event	0.00	0.00	0.00	0.00
Credit Coupon	0.00	0.00	0.00	0.00
Credit Event Rebate	0.00	0.00	0.00	0.00
Cash Movements	0.00	0.00	0.00	0.00
Ending Cash Balance	-348,759.66	-13,530.00	13.82	-323,641.68
CME IRS NPV	0.00	0.00	0.00	0.00
CME NDF NPV	0.00	0.00	0.00	0.00
LCH IRS NPV	0.00	0.00	0.00	0.00
LCHSA CDX NPV	0.00	0.00	0.00	0.00
Eurex IRS NPV	-2,973,760.39	0.00	0.00	-2,646,646.75
Eurex NDF NPV	0.00	0.00	-2,167.25	-2,167.25
Eurex FX NPV	0.00	0.00	-8,483,531.06	-8,483,531.06

#### Initial Margin Summary

EUR

	EUREX NDF	EUREX FX	EUREX IRD	Total ( EUR )
Margin Requirement	-26,798.33	-80,327,796.66	-2,716,490.12	-83,071,085.10
Cash Collateral (Cover Value)	0.00	0.00	0.00	0.00
Non Cash Collateral (Cover Value)	0.00	0.00	0.00	0.00
Total Collateral (Cover Value)	0.00	0.00	0.00	0.00
Excess/Deficit	-26,798.33	-80,327,796.66	-2,716,490.12	-83,071,085.10
Pending Cash Collateral (Cover Value)	0.00	0.00	0.00	0.00



# **EUREX SOD Margining Process**

FCM needs functionality of passing through all the cash which they received from Clients to CCP (EUREX).

EUREX charges intraday margin (for IM) in EUR which FCM can charge to client. If the client does not pay then, FCM request for return of the EUR in the beginning of the day from EUREX, and post deficit balance in preferred currency which will be reflected in PPS Call amount.

Currently, this functionality is only for LCH, we will be extending this feature now for EUREX CCP.

FCM generally performs margin call processing in following manner:

EOD Margin Call Process

IM to VM (VM to IM) Sweeping excess cash balances

Collateral Management Process for EOD

SOD Process using CD042 vis-à-vis margin call position for cash facing to Client - Intraday Margin Call Processing

The EUREX SOD process currently only supports IRD products for Client accounts.

## 6.1 Setup Requirements

No specific setup is required for this process besides the scheduled task CLEARING\_SOD\_MARGINCALL which is executed at SOD after completing the EOD clearing process.

This process reconciles Initial margin positions between existing Client IM positions from Margin Call Position Valuation report (MCPV) and the CD042 Eurex file for that position A/c. If there is any difference between the file and MCPV positions then SOD call is generated between the FCM and the CCP.

MCPV report can be located as below in Collateral Manager.

Collateral Manager : FCM [161089/LCHSALV	M/calypso_user]	
Collateral Manager Collateral Market Data	Window Help	
F Load 👻 🏹 Price 👻 😚 Dispute 👻 Alloca	Show View > tract 🛛 🧿 Optimize - 🛛 💽 Reconciliation - 🖉 🎧 Market Data -	
Collateral Filter 🗗 🕂 Results	Reset Layout	
🛅 🛃 💷 🖻 🗣 🖭 👘 🚽 📆 🗸 👘	Save Layout	
Process Date /Time Process Date 12/27/2021	Configuration >	
Collateral Context Collateral C EOD_COLLATE	Trade >	
🖃 Filter	Report > 🗊 Margin Call Entry	
PO Name PO1 LE Name	Engine > 📚 Underlying Trades	
Contract Ty Contract Gr	See Position	
Contract Fil	Pition Valuation	
Contract Ids 30405,30406,		
Status ALLOCATED,C	🕥 Allocation	
Processing		

You can search for positions with below criteria:

Date in the Pricing Details must be updated for the relevant business date for which the position is to be searched.





The scheduled task extracts the positions from back end according to the setup, there is no requirement for the user to make any changes on the below report. Below is mentioned only for the user reference to identify positions from the report.

A MarginCallPositionValuation Report (12/27/21 7:05:26 AM)	
Report Data View Export Market Data Utilities Help	
Criteria	
Contract	Position
Processing Org MSPO Contract :	Position Type : THEORETICAL
CP role: ALL Contract Types :	Currency :
Config Level V Contract Subtyp	Underlying Type: Cash
Contract Groups :	Book Attribute : Contains :
Contract Filter :	Position Value Nominal V
Collateral Contex EOD_COLLATERAL 😽	
1	
	Pricing Details: 12/27/21 7:05:26 AM EST V

Scheduled Task Setup



Task Description								
Task Type:	CLEARING_SOD_MARGINCALL							
External Reference:	EUREX SOD Process							
Comments:	EUREX SOD Process	UREX SOD Process						
Description:	EUREX SOD Process							
Execution Parameters								
Attempts: 1	Retry After: 0 minutes Expected Executi	on Time (SLA): 2 minutes						
JVM Settings: -Xm	ns512m -Xmx1024m -XX:MaxPermSize=256m							
Log Settings: ,Sch	heduledTask,ClearingMT569MessageProcessing,onboarding	default,AgedMarginCall ,Monitoring.ClientRequest						
Task Notification Option	ns	_						
Send Emails	Publish Business Events To User:	·						
Common Attribut	tes							
Task ID	12501							
Processing Org	MSPO	MSPO						
Trade Filter								
Filter Set								
Pricing Environmen	nt FROMDB							
Timezone	America/	New_York						
Valuation Time Hou	our 0							
Valuation Time Min	nute 0							
Undo Time Hour								
Undo Time Minute								
Valuation Date Offs	set							
From Days	0							
To Days	0							
Pricer Measures								
Business Holidays	CCP							
Task Attributes								
CCP	EUREX							
Product	IRD							
Skip download	Never							
Origin	CLIENT							
Position Type	THEORE	ICAL						
Collateral Context	EOD_COI	EOD_COLLATERAL_CONTEXT						

# 6.2 SOD File processing

When executing the scheduled task for a specific valuation date, system will search for the specific CD042 file.

For system to locate the file, user will have to update the clearing connection properties file with the file location.

Clearing connection properties file is located at below location:

This PC > Local Disk (C:) > calypso > calypso-16.1.0.89-clientpatch.maintenance.patch1610-maintenance-SNAPSHOT > client > resources > config							
	Name		Date modified	Туре	Size		
	clearing.properties.sample		11/17/2021 10:38 AM	SAMPLE File		3 KB	
^ م	clearing.reportPaths.properties.sample		11/17/2021 10:38 AM	SAMPLE File		1 KB	
· · · · · · · · · · · · · · · · · · ·	4 clearing connection.properties		10/4/2021 5:13 PM	PROPERTIES File		1 KB	
<b>A</b>	clearingconnection.properties.sample		11/17/2021 10:38 AM	SAMPLE File		1 KB	





```
#
 Key format is
#
#
 <CCP short name>.<Firm ID (PO LE attribute)>.<configuration
#
# URI format must include protocol, host and port (where app.
#
# For public key SFTP authentication, keyPassphrase is option
# path can be an absolute filesystem path, or a resource path
# the classpath. Filesystem paths take precedence
#
CME.4Q0.URI=sftp://sftpng.cmegroup.com:22
CME.4Q0.user=4Q0 SFTP user
CME.4Q0.password=*****
LCH.CC1.URI=sftp://195.246.228.9:6022
LCH.CC1.user=CC1_SFTP_user
LCH.CC1.key=/path/to/CC1/key
LCH.CC2.URI=sftp://195.246.228.9:6022
LCH.CC2.user=CC2 SFTP user
LCH.CC2.key=/path/to/CC2/key
LCH.CC2.keyPassphrase=CC2_key_passphrase
EUREX.CALXV.URI=file://C:/calypso/gateway/EUREX
```



Further within the Eurex folder, we provide one more location step as per the below file 'clearing.reportPaths.properties.sample':

This PC > Local Disk (C:) > calypso > calypso-16.1.0.89-clientpatch.maintenance.patch1610-maintenance-SNAPSHOT > client > resources > config					
	Name	Date modified	Туре	Size	
	clearing.properties.sample	11/17/2021 10:38 AM	SAMPLE File	3 KB	
	clearing.reportPaths.properties.sample	11/17/2021 10:38 AM	SAMPLE File	1 KB	



CA	SHMUVCLMZUZ I IZZU.csv 🖬 🚍 CVARMARGINZUZ I IZZU.csv 🖾 💼 eurex_cc/50 xsd 🛋 💼 CalypsoScheduler_Scheduled I ask_CRUCTES I_161095.log 🖬 💼 clearingconnectio
# # #	Report paths overrides
# # # # #	Paths defined in this properties file will override those loaded from the OOTB configuration and CustomClearingReports.xml. Only paths can be overriden here, no other report attribute will be modified. Refer to Clearing documentation for more information.
# # # # # #	The following syntaxes are accepted <reportbeanname>=<new path="" report=""> <ccp>.<reportname>=<new path="" report=""></new></reportname></ccp></new></reportbeanname>
# #	where
# # #	reportBeanName : report bean name, with bean as in Spring bean. See CustomClearingReports.xml for more info
#	EUREX.EUREXOvernightCoverDistributionReport = /\${firmId}/Banking/[a-zA-Z0-9]*(CD042)[a-zA-Z0-9]*(.XML)

Thus, within the Eurex folder, system will refer the above highlighted location.

For example, Eurex firm ID is CALXV then we see the file located as below:



This is the default file location for SOD file as per the above property file, user can change it as per the requirement.

Sample Report Information for reference: Report CD042



⊜<cd042Grp10> <membClgIdCod>CALXV</membClgIdCod> <clgMembCurrTypCod>EUR</clgMembCurrTypCod> cd042KeyGrp10> <poolId>CALXVXSTANDARD</poolId> </cd042KeyGrp10> d<cd042Grp11> ↓<cd042KeyGrp11> <membExchIdCod><mark>CALXV<</mark>/membExchIdCod> </cd042KeyGrp11> <cd042RecA> <currTypCod>**EUR**</currTypCod> <mgnReqrAmnt>109523181.38</mgnReqrAmnt> <cshCollAmnt>110630159.19</cshCollAmnt> <secuTotBalAmnt>0.00</secuTotBalAmnt> <guarTotBalAmnt>0</guarTotBalAmnt> <ovrUndrCovAmnt>1106977.81</ovrUndrCovAmnt> <adjExchRat>1.000000</adjExchRat> <ovrUndrCovAmntClgCurr>1106977.81</ovrUndrCovAmntClgCurr> </cd042RecA> <cd042RecA> <currTypCod>USD</currTypCod> <mgnReqrAmnt>46423.80</mgnReqrAmnt> <cshCollAmnt>0.00</cshCollAmnt> <secuTotBalAmnt>0.00</secuTotBalAmnt> <guarTotBalAmnt>0</guarTotBalAmnt> <ovrUndrCovAmnt>-46423.80</ovrUndrCovAmnt> <adjExchRat>1.178327</adjExchRat> <ovrUndrCovAmntClgCurr>-39398.06</ovrUndrCovAmntClgCurr> </cd042RecA> <sumOvrUndrCovAmntClgCurr>1067579.75</sumOvrUndrCovAmntClgCurr> </cd042Grp11> </cd042Grp10>

- Pool Id tag denotes the segregation A/c for the resp client.
- EUR is the base ccy
- Net PPS call amount is captured from tag 'sumOvrUndrCovAmntClgCurr'
- Segregation A/c i.e. pooIID is mentioned on Client and CCP IM MCC in below tags in 'Additional Info' section

MCC IM > Client facing would have CCP\_SEGREGATION\_ACCOUNT = CALXVXSTANDARD

MCC IM > EUREX facing would have CCP\_REFERENCE = CALXVXSTANDARD