

Nasdaq Calypso ETD Workstation

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Document History

Revision	Published	Summary of Changes
1.0	April 2018	First edition for version 7.0.3, Core Calypso Version 16 Suite
2.0	June 2021	Second edition for version 8.14.0
3.0	February 2022	Third edition for version 17

This document describes how to install, configure and use the ETD Workstation.

The ETD Workstation provides full position and trade management for ETD back and middle office users including:

- Position investigation
- Trade investigation
- Option exercise, assignment and expiration
- Manual purchase and sale

> For information on installing and setting up ETD Clearing, please refer to Calypso ETD Clearing documentation.



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Installation

1.1 Installing the ETD Workstation

The ETD Workstation is installed when you install Calypso Clearing Member.

1.1.1 Database

You need to create a Risk Infrastructure database if you do not already have one.

Please refer to Calypso Database Administration for details on creating a Risk Infrastructure database.

1.1.2 Environment Properties

You need to set the following environment properties in the Environment to access the Risk Infrastructure database.

Oracle

```
MiddleTierDRIVER = oracle.jdbc.OracleDriver
MiddleTierDBURL = jdbc\:oracle\:thin @<hostname>:1521:<sid>
MiddleTierDBUSER = <username>
MiddleTierDBPASSWORD = <password>
```

Sybase

MiddleTierDRIVER = sybase.jdbc4.SybDriver MiddleTierDBURL = dbc\:sybase\:Tds\:@<hostname>\:5046/dbschemaname MiddleTierDBUSER = <username> MiddleTierDBPASSWORD = <password>

1.1.3 Access Permissions

The user defined in environment property CLIENTUSER must have access to ANY book.

1.2 Configuring the ETD Workstation

1.2.1 Risk Server

The default risk server used by the ETD Workstation is RISKDEV.

You can define the Risk Server to be used in the domain "ProcessingConfig":



Value = ETDWorkstationRiskserver.Name

Comment = <risk server name>

1.2.2 Trade Filter

The Trade Filter used to run ETD reports must contains a position spec.

📕 Trade Filter [14	44005/ERSTEP6B	RANCH/rabha_a	irhal]				
Name	ALL				Time Zone	NONE	•
Comment	Everything in the	system			Holidays		
					Check H	lolidays	
Use SQL	Gener	ate SQL	Parent	NONE			-
🔲 Cache tra	des on load	🔲 Set as def	ault parent				
Ranges	Date / Time	Product	Criteria	Trac	le Criteria	Unc	lerlying Security
Custom Criteri	a Post Proces	sing Position S	Spec Co	unterparty	Fund D	iary Criteria	Enrichment Criteria
						1	
	Position Spec	ETD Pos Spec		•			
Se	curities Selection					Show	
		Exclude Ina	ctive Positio	ns			
		Only Cross	Book Positio	ns			
PositionCash Flo	w Type 🛛 📝 IN						

1.2.3 Analysis Set

You need to configure an Analysis Set named "ETD set" using Position & Risk > Risk Config from the Calypso Navigator.

[NOTE: "ETD set" is case sensitive]

🔏 Risk Config				
Analysis Set Name	ETD set		ETD set	▼
Dispatcher Config	NONE		Use Dispatcher	
Analysis Type	ETD •			
Trade Filter	ALI			
Use Position Snaphot	No Position Snapshot and Latest 👻			
Analysis Params Set	ETD 🗸 🛄			New Set
Pricing Env	default - Gener	ate N	Market Data	Save Set
Description	ETD			Remove Set
	Save Output Save To Format CSV		-	inclusive set
Save in File				



Save the Analysis Set.

1.2.4 ETD Report

Then add parameters for the ETD report to the Analysis Set "ETD set".

Z ETD Param Viewer	
Param Set Name	ETD
Comments	
	I
PLPosition column	unt,Liquidation Aggregation.CounterPartyAccount.LE Name
Trade Open Quantit	Date,Trade Info,Trade Version,Pricer.NPV,TradeUpdateInfo
Liquidated Position c	Jation Id,Liq Aggregation Id,Liq Aggregation,Option Put/Call 3
Trade Frequency	1 4
MarketData Frequency	1 5
Load Nev	v Delete Save Save As Close

Step 1 – Select the columns for the PLPosition report (Position Keeper report).





- **Step 2** Select the columns for the Trade Open Quantity report.
- **Step 3** Select the columns for the Liquidated Position Report.
- **Step 4** Enter the trade update frequency in seconds.
- **Step 5** Enter the market data update frequency.
- Step 6 Save the configuration.

The following warning may appear; it does not block saving the configuration.



You can preview the report in the Risk Config window.



1.3 Starting the ETD Workstation

1.3.1 Starting the BO Report Server

Start the BO Report Server using <calypso home>/deploy-local/<Environment>/boReportServer.bat\.sh or using the DevOps Center.

1.3.2 Generate Schema Files through Scheduled Task

Once the BO Report Server is successfully started, run the Scheduled Task "BOREPORT_SCHEMA_GENERATE" to generate the Schema files.

These schema files contain tables and columns details which are configured through Risk Config.

ask Description					
Task Type:	BOREPORT_SCHEMA_GENERATE	~			
External Reference:	BOREPORT_SCHEMA_GENERATE				
Comments:	BOREPORT SCHEMA GENERATE				
connerror					
Description:	BOREPORT_SCHEMA_GENERATE				
Execution Parameters					
Attempts: 1	Retry After: 0 minut	tes Expected Execution Time (SLA): 2 minutes			
JVM Settings: -Xms	1024m -Xmx2048m				
Log Settings:					
Send Emails	Publish Business Events To User	r: v			
Common Attribut	es				
Common Attribut Task ID	es 🛛	16620			
Common Attribut Task ID Processing Org	es	16620 SETCLEAR			
Common Attribut Task ID Processing Org Trade Filter	es	16620 SETCLEAR			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment	es	16620 SETCLEAR			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone	es	16620 SETCLEAR			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour	es	16620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minut	es [16620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minut Undo Time Hour	es [16620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minut Undo Time Hour Undo Time Minute	ies [I6620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minut Undo Time Hour Undo Time Minute Valuation Date Offse	es e	I6620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minute Undo Time Hour Undo Time Minute Valuation Date Offse From Days	ies le et	I6620 SETCLEAR GMT			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minute Undo Time Hour Undo Time Minute Valuation Date Offse From Days To Days	ies re t	I6620 SETCLEAR GMT 0 0			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minute Undo Time Hour Undo Time Minute Valuation Date Offse From Days To Days Pricer Measures	ies re et	16620 SETCLEAR GMT 0 0			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minute Undo Time Hour Undo Time Minute Valuation Date Offse From Days To Days Pricer Measures Business Holidays	ies re et	I6620 SETCLEAR GMT 0 0			
Common Attribut Task ID Processing Org Trade Filter Filter Set Pricing Environment Timezone Valuation Time Hour Valuation Time Minute Undo Time Hour Undo Time Hour Undo Time Minute Valuation Date Offse From Days To Days Pricer Measures Business Holidays Task Attributes	res re et	16620 SETCLEAR GMT 0 0			

Processing Org – Select Processing Organization Legal Entity.

Dir. for generated schema files – Provide the path where generated schema files need to be stored.



Clipboard	Organize New	Open	Select	
, ← → → ↑ 📕 → This PC → Local Disk (C:) → calyp	iso > calypso-16.1.0.96 > client > bi	in > dbscripts > risk >		
1 🔚 Videos	^ Name	Date modified	Туре	Size
c 🟪 Local Disk (C:)	oracle	12/23/2021 6:49	PM File folder	
6 SRecycle.Bin	postgresql	12/23/2021 6:49	PM File folder	
\$WinREAgent	sybase	12/23/2021 6:49	PM File folder	
app	BOReportSchemaBa	se.xml 12/23/2021 6:52	PM XML Document	1 KB
calypso	BOReportSchemaDa	ta.xml 12/23/2021 6:52	PM XML Document	1 KB
	4			

Once the Schema files are generated, place the schema files into path <calypso home>\client\bin\dbscripts\risk and terminate all the servers (e.g., data server, engine server, Scheduler and BO Report server) and run Executes SQL.

In v17, you need to start the Auth Server and Event Server before the Data Server.

In v18, you need to start the Discovery Server and Gateway Server before the Event Server.



In Execute SQL, select "Calypso Risk Infrastructure Data-Model Upgrade". Click Next.



差 Calypso Execute SQL - env: Calypso_161085		×
Database Connection Properties		
Please provide the connection information required to connect to th	e core database.	
Calvasa Environment		
Calypso_161085		~
Risk		
Description		
Database User:	Database Password:	
BOREPORT_161059	•••••	
Database Driver:		
orade.jdbc.OradeDriver		
Database URL:		
jdbc:oracle:thin:@localhost:1521:calypso		

In the above window it will pick the Middle tier DB details from Environment property file.

Test the connection and click Next.

	Calypso Execute SQL - env: Calypso_161085 × Review Data Files Based on the modules available, the following XML files containing data-model structure and startup data have been added.							
	Risk Schema Files 🗘 Add Remove 🗇 View							
	Module Name	Schema Data File Name	Schema Data File Path					
	risk	BOReportSchemaData.xml	C:\calypso\calypso-16.1.0.96\dient\bin\dbscripts\risk					
	risk	MiddleTierSchemaBase.xml						
	risk	BOReportSchemaBase.xml	C: \calypso \calypso-16. 1.0.96 \client \bin \dbscripts \risk					
4								

Ensure all the above files are added manually. Click Next and complete the data synchronization.

NOTE: If after running Execute SQL and starting all the servers, you cannot launch the ETD workstation. Deploy the system again, run Execute SQL and restart all the servers

1.3.3 ETD Workstation Quick Start

Start the ETD Workstation using menu action "startup.LaunchETD".

When you first open the ETD workstation it is empty.



Z ETD Viewer	A CANTAGE FROM	
Workspace Dashboards		
IIIIII		
28 Navigation		
(5) Configuration		
	» •	

Right-click Report Plan in the Configuration panel and choose New to add a report plan.





		Datasource 2	Component Type 3
ions		ETD/ALL/ETD/Position	Tree Grid
olan			
.0	Columns Placement		
	Available Columns	Placement	
olumns Placement	Q,- Type here to filter tree elements	Heading	
	 Buy Amount Buy Average Price Buy Quantity 	Product Description	Uquidation Aggregation.ClientAccount - Uquidation Aggregation.CounterPartyAccount -
Coloring Rules	🔝 Clean Realized	Columns	
	Clean Realized B/S	Braduct Description +	Liquidation Approaction CliontAccount (Liquidation Approaction CounterParts Account (
	Currency Currency Current Mit Price Current Mit Price DV Fees P&	Product Description	ad Nominal Currency Amount Current Mit Price Current Outrol
		Position Id	and thomas currency Annual Current Mit Price Current Outlet
	Dly Fees Pol (base)	=	
	Dly Fees Unrealized		
	Dly P&L		
	Dly Realized		
	Ease P&		×
	Fees P&L (Base)		1 Contraction of the second se
	E Fees Realized		
	E Fees Unrealized	Subtotals	
	Interest Earned		
	Liquidation Aggregation ID		
	Liquidation Aggregation Name		
	Liquidation Aggregation. ClientAcco	ount Totals	
	Liquidation Aggregation.ClientAcco	ount.Account N	
	Liquidation Aggregation.CounterPa	artyAccount_LE	
	anguada aut reggi ega torri e ouricer e	T	

Enter a name, select a data source (ETD parameters previously created) and a component type.

Select the columns you want to display.

Save the report plan.

Then add it to your current Dashboard.



In General section:



🔀 Dashboard New Da	ashboard		×
General	General Dashboard Name New Dashboard	Profile [all]	•
Widgets	Master datasource	ETD/ALL/ETD/Position	•
		ß	Save Close

Decide the master datasource; here it will be a Position Report.

You can choose options for this dashboard like the update in Real Time.

In Widgets section:

		No. of Concession, Name					-
Widgets							
Component name	Datasource	Component Type	Report Plan	Filter	Profile	Period	Drilldown
Position	ETD/ALL/ETD/Position	Tree Grid		-	[all]		
	2		< Browse > ALL Positions	3			4
	Widgets Component name Position	Widgets Component name Datasource Position ETD/ALL/ETD/Position 2	Widgets Component name Datasource Component Type Position ETD/ALL/ETD/Position Tree Grid 2 2	Widgets Component name Datasource Component Type Report Plan Position ETD/ALL/ETD/Position Tree Grid Component Type 2 Component Type Report Plan	Widgets Component name Datasource Component Type Report Plan Filter Position ETD/ALL/ETD/Position Tree Grid Image: Component Type Report Plan Filter 2 2 ALL Positions 3 3	Widgets Component name Datasource Component Type Report Plan Filter Profile Position ETD/ALL/ETD/Position Tree Grid Image: Component Type Component Type 2 Component Type Report Plan Filter Profile 2 Component Type Report Plan Filter Profile 2 Component Type Report Plan Filter Profile 2 Component Type Report Plan Filter Profile	Widgets Component name Datasource Component Type Report Plan Filter Profile Period Position ETD/ALL/ETD/Position Tree Grid Image: Component Type Image: Component Type Image: Component Type Image: Component Type Period Period<

Add a line by clicking by +.

Choose Datasource and Component type.

You can choose the option drilldown if you have several widgets on this dashboard.

Then save your dashboard:





ETD Viewer		Table Million							
Workspace Dashboards									
			4858 M						
Q-									
↓ Config ☐ Filter Configuration ↓ Report Plan ↓ Autilable Dashboards ↓ New Dashboard									
Ravigation									
() Configuration									
5			20						
Position Showing 7 of 7 records			💤 🌠 💽 🔇 🔩 🌼 🕂						
Grouping: Product Description / Liquidation Aggregation.ClientAccount / Liquidation Aggregation.CounterPartyAccount	Product Description	Liquidation Aggregation. ClientAccourt	t Liquidation Aggregation.CounterPartyAccount						
E XEUR-BMW-O/PUT/100/SVN0/MAR18									
SA TEST @ US FCM VS									
EUREX A1									
	XEUR-BMW-O/PUT/10	SA TEST @ US FCM	EUREX A1						
	VEUD DUW O/DUT/40		EUDEX M						
	AEUK-DMVV-U/PU1/10	SATEST WUS FCM	EUREA P1						
	VELID BMW O/DUT/40	SA TEST @ US FCM	UBS Cliente						
	ALOR-DWW-0/F01/10	SA ILUT W USI CM							
FIREX P1									
	XEUR-ENI1-O/CALL/12	SA TEST @ US FCM	EUREX P1						
T XEUR-FSCP-F/MAR19									
SA TEST @ ERSTE									
EUREX A1			-						
			Date : 02/02/2018 -						

1.3.4 Scheduled Task BO_REPORT

The scheduled task BO_REPORT allows updating the ETD Workstation for back-dated trades.

Task Attributes	h
Analysis Param Set	ETD#ETD
ENV_NAME	default
TRADE_FILTER_TEMPLATE	ALL

Task Attributes

- Analysis Param Set You can select the Analysis Param Set in the for "ETD#<ETD parameters>".
- ENV_NAME Pricing Environment used in the Analysis Set configuration.
- TRADE_FILTER_TEMPLATE: Trade Filter used in the Analysis Set configuration.





ETD Workstation Configuration

2.1 Starting the ETD Workstation

Start the BO Report Server using <calypso home>/deploy-local/<Environment>/
boReportServer.bat\.sh or using the DevOps Center.

Start the ETD Workstation using menu action "startup.LaunchETD".

2.2 ETD Workstation Dashboards

A dashboard is a collection of widgets, and any number of Dashboards can be configured under Configuration > Available Dashboards.

Right Click options available are



On New or Edit of a Dashboard you have the following configuration options

	General	
General	Dashboard Name Fut Opt split	Profile [all]
Widgets	Master datasource Define available criteria in the global filters Global filter configuration	ETD/ETD/ETD Param Set/Position opentrades
	Options Real time Eligible to global filters	

Associate a pre-defined filter that will always be applied to all the widgets in that Dashboard.





Choose if trades and quotes are loaded in real time, otherwise the 'Load data' icon and 'Refresh Quote' icon will manually load any new data.

Allow left hand Navigation filters to be applied to this Dashboard.

Choose if data require auto loading on start up.

2.3 Widgets

Any number of Widgets can be configured in a Dashboard, but typically a maximum of three is recommended for readability & usability reasons.

The following configuration options are available

	Widgets							
2≓		2	3	4	5	6	1	8 00
Seneral	Component name	Datasource	Component Type	Report Plan	Filter	Profile	Period	Drilldown
	Option Positions	ETD/ETD/ETD Param Set/Position	Tree Grid	Pos-T	Options	[all]		
	Futures Positions	ETD/ETD/ETD Param Set/Position	Tree Grid	Pos-T	Futures	[all]		

Name of the widget component

Datasource for this widget, available datasources are

- Positions
- TradeOpenQuantity
- LiquidatedPositions
- Listed Trades

Display type of the widget component, available types are

- Tree Grid
- Flat Grid
- Chart
- Pivot

Sets the Report Plan – data columns, column names, colors etc.

Pre-defined filter just for this widget

Profile – Not Applicable in this release

Date Period to retrieve

- MTD
- QTD
- YTD
- MAT



Drilldown - Applicable for TradeOpenQuantity and LiquidatedPostion widgets to allow the Drilldown auto filter feature from the Position widget.

2.3.1 **Position Widget**

To report positions at the aggregation level defined in the Risk Config.

Equivalent to the Position Keeper

Typical layout

Positions Tree Showing 7 of Wrecords	Positions Tree Showing 7 of Records											
Grouping: Book / Product Description	Client	CtPty	Quantity	Currency	Average Price	Current Quote	Realized	Unrealized	Open Trades			
												
SANK ALPHA												
XEUR-FDAX-F/FEB18												
	BA001_A	UBS Clie	270	EUR	7,238.15	7,250.00	-750.00	-48,857,500.00	4			
	BA001_C	UBS Clie	80	EUR	7,255.00	7,250.00	2,500.00	-14,510,000.00	1			
SEUR-WAT-O/CALL/200/SVN0/FEB18												
	BA0500_1	UBS Clie	-37	EUR	1.3205405	1.2500000	0.00	0.00	2			
	BA001_B	UBS Clie	56	EUR	1.2185714	1.2500000	0.00	0.00	4			
	BA001_A	UBS Clie	-25	EUR	1.2400000	1.2500000	0.00	0.00	1			
SEUR-WAT-O/CALL/210/SVN0/FEB18												
	BA001_C	UBS Clie	-38	EUR	1.7184211	1.8000000	0.00	0.00	2			
	BA001_A	UBS Clie	-30	EUR	1.7700000	1.800000	0.00	0.00	1			

2.3.2 Trade Open Quantity Widget

To report Open Trades at the aggregation level defined in the Risk Config.

Equivalent to the TOQ Report.

Can be configured as a Drill-down from Position – meaning when one or more position lines are highlighted in the Position Widget then a 'Position Id' filter is automatically applied so only the TOQ's for the selected positions are displayed.

Typical layout

TOQ Tree [ETD	TOQ Tree [ETD/ETD/ETD Param Set/TradeOpenQuantity] Showing 7 of 7 records										
Trade Id		Product Description	Open Quantity	Trade Date	Settle Date	Pricer.NPV	Pricer.PV	Contract Value	Book	Contract. Name	
-											
60718		XEUR-WAT-O/CALL/200/	25.0	15/01/2018	16/01/2018	3,125.00000	3,125.00000	3,000.00	BANK A	XEUR-WAT-0	
60720	Ŷ	XEUR-WAT-O/CALL/200/	20.0	08/01/2018	09/01/2018	2,500.00000	2,500.00000	2,460.00	BANK A	XEUR-WAT-O	
60722	Ŷ	XEUR-WAT-O/CALL/200/	6.0	08/01/2018	09/01/2018	750.00000	750.00000	714.00	BANK A	XEUR-WAT-O	
60727		XEUR-WAT-O/CALL/200/	-30.0	29/01/2018	30/01/2018	(3,750.00000)	(3,750.00000)	(3,990.00)	BANK A	XEUR-WAT-O	
60740		XEUR-WAT-O/CALL/200/	-25.0	08/01/2018	09/01/2018	(3,125.00000)	(3,125.00000)	(3,100.00)	BANK A	XEUR-WAT-O	
60721		XEUR-WAT-O/CALL/200/	5.0	08/01/2018	09/01/2018	625.00000	625.00000	650.00	BANK A	XEUR-WAT-O	
60728		XEUR-WAT-O/CALL/200/	-7.0	29/01/2018	30/01/2018	(875.00000)	(875.00000)	(896.00)	BANK A	XEUR-WAT-O	

2.3.3 Liquidated Position Widget

To report Liquidated Position at the aggregation level defined in the Risk Config.

Equivalent to the Liquidation Report.

Can be configured as a Drill-down from Position – meaning when one or more position lines are highlighted in the Position Widget then a 'Position Id' filter is automatically applied so only the Liquidated Positions for the selected positions are displayed.

Typical layout



First Trade Id	First Trade Date	First Price	Second Trade Id	Second Trade Date	Second Price	Realized
						3,550.00
						3,550.00
60712	2018-01-29 10:43:16	7,255.00	60711	2018-01-29 10:43:16	-7,260.00	9,375.00
60712	2018-01-29 10:43:16	7,255.00	60715	2018-01-08 10:46:23	-7,255.00	0.00
60712	2018-01-29 10:43:16	7,255.00	60714	2018-01-08 10:46:23	-7,245.00	-5,750.00
60712	2018-01-29 10:43:16	7,255.00	60716	2018-01-08 10:46:23	-7,244.00	-3,575.00
60712	2018-01-29 10:43:16	7,255.00	60717	2018-01-08 10:46:23	-7,262.00	3,500.00

2.3.4 Listed Trades Widget

To report ETD Trades.

Equivalent to the Trade Browser Report.

Typical layout

de Id	Trade Date	Trade Quantity	Product Description	Buy/Sell	Trade Price	Client	CPty Ac
- 60758	2018-01-01	-5.0	XEUR-FDAX-F/FEB18	Buy	7234.0	BA001_A	UBS Clie
- 60714	2018-01-08	-25.0	XEUR-FDAX-F/FEB18	Buy	7245.0	BA001_C	UBS Clie
- 60715	2018-01-08	-10.0	XEUR-FDAX-F/FEB18	Buy	7255.0	BA001_C	UBS Clie
- 60716	2018-01-08	-15.0	XEUR-FDAX-F/FEB18	Buy	7244.0	BA001_C	UBS Clie
- 60717	2018-01-08	-20.0	XEUR-FDAX-F/FEB18	Buy	7262.0	BA001_C	UBS Clie
- 60720	2018-01-08	20.0	XEUR-WAT-O/CALL/200/	Sell	1.23	BA001_B	UBS Clie
- 60721	2018-01-08	5.0	XEUR-WAT-O/CALL/200/	Sell	1.3	BA001_B	UBS Clie
- 60722	2018-01-08	6.0	XEUR-WAT-O/CALL/200/	Sell	1.19	BA001_B	UBS Clie
60740	2018-01-08	-25.0	XEUR-WAT-O/CALL/200/	Buy	1.24	BA001_A	UBS Cli
- 60793	2018-01-08	50.0	XEUR-FDAX-F/FEB18	Sell	7220.0	BA001_A	UBS Cli
60718	2018-01-15	25.0	XEUR-WAT-O/CALL/200/	Sell	1.2	BA001_B	UBS Cli
60745	2018-01-15	-25.0	XEUR-WAT-O/CALL/210/	Buy	1.78	BA001_C	UBS Cli
- 60746	2018-01-15	-13.0	XEUR-WAT-O/CALL/210/	Buy	1.6	BA001_C	UBS Cli
- 60750	2018-01-15	-30.0	XEUR-WAT-O/CALL/210/	Buy	1.77	BA001_A	UBS Cli
- 60711	2018-01-29	-75.0	XEUR-FDAX-F/FEB18	Buy	7260.0	BA001_C	UBS Cli
60712	2018-01-29	225.0	XEUR-FDAX-F/FEB18	Sell	7255.0	BA001_C	UBS Cli
- 60727	2018-01-29	-30.0	XEUR-WAT-O/CALL/200/	Buy	1.33	BA0500_1	UBS Cli
- 60728	2018-01-29	-7.0	XEUR-WAT-O/CALL/200/	Buy	1.28	BA0500_1	UBS Cli
- 60701	2018-02-05	100.0	XEUR-FDAX-F/FEB18	Sell	7240.0	BA001_A	UBS Cli
60702	2018-02-05	50.0	XEUR-FDAX-F/FEB18	Sell	7220.0	BA001_A	UBS Cli
60703	2018-02-05	75.0	XEUR-FDAX-F/FEB18	Sell	7260.0	BA001_A	UBS Cli
- 60705	2018-02-16	-100.0	XEUR-FDAX-F/FEB18	Buy	7250.0	BA001_A	UBS Cli
- 60706	2018-02-16	-50.0	XEUR-FDAX-F/FEB18	Buy	7250.0	BA001_A	UBS Cli
60707	2018-02-16	-75.0	XEUR-FDAX-F/FEB18	Buy	7250.0	BA001_A	UBS Cli
- 60708	2018-02-16	-100.0	XEUR-FDAX-F/FEB18	Buy	7250.0	BA001 A	UBS Cli

2.3.5 Expand & Collapse One Level Icons

For Tree Grid views the data displayed can be Expanded or Collapsed using these icons

Collapsed example

Positions Tree Showing 7 of 7 records	sitions Tree Showing 7 of 7 records 🛃 👫								
Grouping: Book / Product Description	Client	CtPty	Quantity	Currency	Average Price	Current Quote	Realized	Collapse One	Level
BANK ALPHA									
XCBT-21-F/FEB18									
XEUR-FDAX-F/FEB18									

Expanded example



Positions Tree Showing 7 of 7 records	;						48	7å 🕕 🗘 🍖 📫
Grouping: Book / Product Description	Client	CtPty	Quantity	Currency	Average Price	Current Quote	Realized	(pand One Level
-								and one cever
BANK ALPHA								
TCBT-21-F/FEB18								
	BA001_C	UBS Clients	105	USD	125-257	125-200	0.0	-19,218.750
L	BA001_A	UBS Clients	105	USD	125-250	125-200	-2,812.5	-16,406.250
TCBT-21-F/JUN18								
	BA001_A	UBS Clients	215	USD	124-120	124-100	16,406.2	-13,437.500
L.	BA001_C	UBS Clients	215	USD	124-120	124-100	16,406.2	-13,437.500
XEUR-FDAX-F/FEB18								
	BA001_B	UBS Clients	0	EUR	0.00	12,310.00	91,400.	00.00
	BA001_A	UBS Clients	-2,100	EUR	12,347.57	12,310.00	0.	1,972,500.00
L	BA001_C	UBS Clients	0	EUR	0.00	12,310.00	126,600.	0.00

2.3.6 Show Filter Popup Icon

To allow the user to check what filters are being applied, to help if unexpected results are being displayed.

🔀 ETD View	ver							
Workspace	Dashboar <mark>ds</mark>							
137574	Positions Tree Showing	g 7 of 7 records	5		🔹 🗱 💽 🖓 🍖 म			
Q-	Product Description	Client	CtPty	Quantity	Currency	Av Show filter popup		

and and Description	Clinate	ChDb.	Our white	C	Deles	Comment Quester	Deellered	I town a based	One Trades	Deathland Tel
oduct Description	Client	CtPty	Quantity	Currency /	werage Price	Current Quote	Realized	Unrealized	Open Trades	Position 10
CBT-21-F/FEB18	BA001_C	UBS Clie	105	USD	125-257	125-200	0.000	-19,218.750	2	593
XCBT-21-F/FEB18	BA001_A	UBS Clie	105	USD	125-250	125-200	-2,812.500	-16,406.250	1	593
XEUR-FDAX-F/FEB18	BA001_B	UBS Clie	0	EUR	0.00	12,310.00	91,400.00	0.00	0	593
- XEUR-FDAX-F/FEB18	BA001_A	UBS Clie	-2,100	EUR	12,347.57	12,310.00	0.00	1,972,500.00	7	594
XEUR-FDAX-F/FEB18	BA001_C	UBS Clie	0	EUR	0.00	12,310.00	126,600.00	0.00	0	594
XCBT-21-F/JUN18	BA001_A	UBS Clie	215	USD	124-120	124-100	16,406.250	-13,437.500	1	593
XCBT-21-F/JUN18	BA001_C	UBS Clie	215	USD	124-120	124-100	16,406.250	-13,437.500	1	59
O Tree [ETD/ETD/ETD P	III aram Set/Trad	leOpenQua	ntity] Showi	na 7 of 7 record	3				16 55 0	0 74 0
OQ Tree [ETD/ETD/ETD P	III aram Set/Trad	leOpenQua	ntity] Showin	ng 7 of 7 record	S	Contract Value	Book	Contract Name		0 🔩 🔉
)Q Tree [ETD/ETD/ETD P ade Id	III aram Set/Trac Open Qua	leOpenQua Intity L	ntity] Showi .iquidation Date	ng 7 of 7 record	s Pricer.PV	Contract Value	Book	Contract. Name	tinked Ic	C) Re C
Q Tree [ETD/ETD/ETD P ade Id → 59417	III aram Set/Trac Open Qua	JeOpenQua Intity L -300.0 2	Intity] Showi Liquidation Date 2/01/2018	ng 7 of 7 record Pricer.NP	5 / Pricer.PV 00.00 (92,325,000.0	Contract Value	Book	Contract. Name KEUR-FDAX-F	tinked Ic	C) 🔩 🗘 Position Id in
DQ Tree [ETD/ETD/ETD P ade Id 59417 59418	iii aram Set/Trac Open Qua	JeOpenQua Intity L -300.0 2 -300.0 2	intity] Showi .iquidation Date 201/2018	ng 7 of 7 record Pricer.NP 262,5 210.0	s / Pricer.PV 20.00 (92,325,000.0 00 (92,325,000.0	Contract Value	Book)) BANK A 2)) BANK A 2	Contract. Name KEUR-FDAX-F KFIIR-FDAX-F	로 두는 이 Linked Ic	C) Re C
2Q Tree [ETD/ETD/ETD P ade Id - 59417 - 59419	iii aram Set/Trac Open Quz	JeOpenQua antity I -300.0 2 -300.0 2 -300.0 2	Intity] Showi Liquidation Date 201/2018 2/01/2018 2/01/2018	ng 7 of 7 record 9 Pricer.NP 262,6 210,0 300,0	5 / Pricer.PV 20.00 (92,325,000.0 00.00 (92,325,000.0 00 09 (92,325,000.0	Contract Value) (92,587,500.01)) (92,535,000.01) (92,625,000.01	Book 0) BANK A 2 0) BANK A 3 1) BANK A 3	Contract. Name KEUR-FDAX-F KEUR-FDAX-F KEUR-FDAX-F	ta इत वि Linked Ic	C) Re C
DQ Tree [ETD/ETD/ETD P ade Id 59417 59418 59419 59415	aram Set/Trac Open Quz	JeOpenQua antity I -300.0 2 -300.0 2 -300.0 2	Intity] Showi Liquidation Date 2/01/2018 2/01/2018 2/01/2018 2/01/2018	ng 7 of 7 record Pricer.NP 262,5 210,0 300,0 300,0	S / Pricer.PV 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0	Contract Value)) (92,587,500,00)) (92,535,000,00)) (92,625,000,00)) (92,625,000,00)) (92,625,000,00)	Book 0) BANK A 2 0) BANK A 2 1) BANK A 2 1) BANK A 2	Contract. Name XEUR-FDAX-F XEUR-FDAX-F XEUR-FDAX-F KEUR-FDAX-F	tinked It	C Report of the second
OQ Tree [ETD/ETD/ETD P rade Id 59417 59418 59419 59415 59416	III aram Set/Trac Open Quz	JeOpenQua antity I -300.0 2 -300.0 2 -300.0 2 -300.0 2	antity] Showi Liquidation Date 2/01/2018 2/01/2018 2/01/2018 2/01/2018 2/01/2018	ng 7 of 7 record Pricer.NP 262,5 210,0 300,0 300,0 300,0 300,0	s / Pricer.PV 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0)	Contract Value (92,587,500,0)) (92,625,000,0)) (92,625,000,0)) (92,625,000,0)) (92,625,000,0)	Book) BANK A 2) BANK A 2) BANK A 2) BANK A 2) BANK A 2	Contract. Name XEUR-FDAX-F XEUR-FDAX-F XEUR-FDAX-F XEUR-FDAX-F KEUR-FDAX-F	Linked I	C C C
QQ Tree [ETD/ETD/ETD P rade Id - 59418 - 59419 - 59415 - 59416 - 59416 - 59420	III aram Set/Trac Open Quz	JeOpenQuz antity I -300.0 2 -300.0 2 -300.0 2 -300.0 2 -300.0 2	antity] Showi Liquidation Date 2/01/2018 2/01/2018 2/01/2018 2/01/2018 2/01/2018 2/01/2018	ng 7 of 7 record Pricer.NP 262,5 210,0 300,0 300,0 300,0 300,0	Pricer.PV 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0 00.00 (92,325,000.0	Contract Value)) (92,587,500.0))) (92,535,000.0))) (92,625,000.0))) (92,625,000.0))) (92,625,000.0))) (92,625,000.0))) (92,625,000.0)	Book 0) BANK A 2 0) BANK A 2 0) BANK A 2 0) BANK A 2 1) BANK A 2 1) BANK A 2	Contract. Name XEUR-FDAX-F XEUR-FDAX-F XEUR-FDAX-F XEUR-FDAX-F &EUR-FDAX-F &EUR-FDAX-F	ta हक प्र	C Re C

For drill-down widgets then the 'Position Id' will be part of the filter applied.

2.3.7 Data Load (Refresh) Icon

The Dashboards can be configured for real-time data refreshing or for the user to do ad-hoc refreshes.

See Installation guide on how to configure dashboards for real time refreshing of data.

For manual ad-hoc loading of data – click the 'Load data' lcon





🔀 ETD View	er					
Workspace	Dashboards					
- 1 87512	Positions Tree Showing	7 of 7 records	i.		48	F 🔷 🙆 🙆 🕈
Q-	Product Description	Client	CtPty	Quantity	Currency	Average Load data

2.3.8 Refresh Quotes Icon

The WS can be configured for real-time quote refreshing or for the user to do an ad-hoc refresh.

See Installation guide on how to configure for real time refreshing of quotes.

For manual ad-hoc loading of quotes – click the 'Refresh quotes' lcon

	Workspa	ce Dashboards			
[47512	Positions Tree Showing 7 of 7 records	3	君 昭 (0 🗘 🏧 🗘 म
	Q-	Grouping: Book / Product Description	Client	CtPty	Quantity Refresh quotes
Ш		<u></u>			

2.3.9 Report Plan Editor Icon

See Installation guide on how to initially define the Report Plans.

To change columns, sorting, colors... of existing widgets use the Report Plan Editor.





ETD Workstation Usage

Once your reports are loaded in a Dashboard, right-click actions are supported for one or many highlighted lines.

Actions are context sensitive depending on the highlighted line

For example

- Futures Expiry action only displayed for Futures that are in the expiry date window
- Manual Liquidation action only displayed for positions configured for 'Manual' liquidation

3.1 Manual Liquidation Window

Launched by highlighting lines and right-click action 'Manual Liquidation'.

Applicable in widgets

- Position Will load all open trades
- Trade Open Quantity Will load just highlighted trades (at least one Buy and one Sell should be highlighted)

Only presented for positions configured for 'Manual' liquidation

N	/lanua	Liquidation										- 🗆 X
Clier	t Acc:	BA001_C CtPty Acct: UBS Clients Pro	duct: XEUR-F	DAX-F								
Max		uantity to close :										
		2	Buys								Sells	
Trac	e Id	Trade Date	Price	Available Qty All		Qty to close	Qty to close	All	Available Qty P	Price	Trade Date	Trade Id
	59423	29/01/18 17:02:44.000 o'clock GMT	12,330.00	50			0 0		10 12	2,350.00	29/01/18 16:58:49.000 o'clock GMT	59407
	59426	29/01/18 17:02:44.000 o'clock GMT	12,306.00	50			0 0		100 12	2,300.00	29/01/18 17:02:44.000 o'clock GMT	59424
	59427	29/01/18 17:02:44.000 o'clock GMT	12,304.00	24			0 0		25 12	2,398.00	29/01/18 17:02:44.000 o'clock GMT	59425
									90 12	2,350.00	29/01/18 17:02:44.000 o'clock GMT	59428
								4				
							5					
					_							
				Total Buy Quantit	y O		0		Total Sell Quanti	ity		
				P&		10			FUR		7 8	
				T de	0.0				LOIN			
							6				Apply Reset	Close

1. Max checkbox

When checked will automatically apply the maximum available quantity i.e. all the Buys, or all the Sells, in ascending order.

The order of the trades can be changed by clicking on the column headers (default is FIFO of Trade Id).

2. Quantity to close – top line

The overall total quantity to close can be typed in and this will be automatically applied to the Buys & Sells, in ascending order.



3. Quantity to close - per line

The quantity of each trade can be entered here.

4. All checkbox

When checked this will apply the maximum available quantity for that trade.

5. Total Buy/Sell Quantity

Displays the quantity of the Buys and the Sells selected. Both sides must match before you can process the liquidation.

6. P&L

Displays the Profit & Loss (Realized PL) of the selected liquidations.

7. Apply button

Will proceed with the liquidation processing, when valid selections have been made.

8. Reset button

Will reset all selections and column orderings.

🗾 Manu	ual Liqu	uidation													
Client Acc	:: BA00	01_C CtPty Acct: U	BS Clients Pr	oduct: XEUR-FDAX-I	F										
Max 🔽	Quanti	ty to close : 124													
			1	Buys									Sells		
Trade Id		Trade Date	Price	Available Qty	All		Qty to close		Qty to close		All	Available Qty	Price	Trade Date	Trade Id
	59423	29/01/18 17:02:	12,330.00		0	1	5	50		10	1		0 12,350.00	29/01/18 16:58:	59407
	59426	29/01/18 17:02:	12,306.00		0 🗸	1	5	50		100	1		0 12,300.00	29/01/18 17:02:	59424
	59427	29/01/18 17:02:	12,304.00		0 🗸	1	2	24		- 14			11 12,398.00	29/01/18 17:02:	59425
										0			90 12,350.00	29/01/18 17:02:	59428
				Total B	uy Quai	ntity	124		124		Total Se	ll Quantity			
						P&L	-600.00				EUR				
					_				- 1.84			_		Apply Reset	Close

Highlighted 'blue' line indicates the trades set for partially closing



On successful processing the closeout liquidations are presented in the Liquidation widget, where they can be Unliquidated if the process needs to be reverted.

3.2 Futures Expiry Window

Launched by highlighting lines and right-click action 'Futures Expiry'

Applicable in widgets

- Position
- Trade Open Quantity Will load the full position

Only presented for Futures positions that are within the expiry date window (when WS Date is equal or greater than the Futures First Delivery Notice date)

🔀 Future Expiry							_ 🗆 X
Market Data 4							
Date: 15/02/2018					2	3	5
Description	Counterparty	Counterparty Acct	Client	Client Account	Quantity	Closing Price	Expiry
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS Clients	BA001	BA001 B		621 12,310.00	~
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS Clients	BAO500	BA0500_1		200 12,310.00	1
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS House	BA001	BA001_B		40 12,310.00	✓
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS House	085W63 Fund	EB085W63		100 12,310.00	✓
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS Clients	BA001	BA001_C		-101 12,310.00	✓
XEUR-FDAX-F/FEB18	UBS CTPTY	UBS Clients	BA001	BA001_A	-	2,100 12,310.00	\checkmark
							6
							Apply Cancel

1. Booking Date from the Processing Org of the positions is displayed

- 2. Positions total quantity
- 3. Closing Price

Line will be highlighted in Red if Closing Price is missing, because this is mandatory for the Expiry processing.

4. Market Data drop-down menu has the standard functions to check & entered the Closing Price

- Pricing Env
- Reload
- Check
- Quotes



5. Expiry checkbox

To select, unselect the positions to expire.

6. Apply button

Will proceed with the expiry processing and a summary message will pop-up

Messa	ge 🛛 🔍
1	140.0 XEUR-FDAX-F positions expired for UBS House -1380.0 XEUR-FDAX-F positions expired for UBS Clients
	ОК

On successful processing the expiry liquidations are presented in the Liquidation widget, where they can be Unliquidated if the process needs to be reverted.

3.3 Option Exercise Expiry Window

Launched by highlighting lines and right-click action 'Option Exercise Expiry'

Applicable in widgets

- Position
- Trade Open Quantity

Only presented for Option positions where Exercise type:

- American options on any date
- European only on expiration date

The following can be set at either the Position level or at the Open Trade level

- Exercise checkbox and Exercise Quantity for Long positions
- Assign checkbox and Assign Quantity for Short positions
- Expiry checkbox, typically for Out-The-Money (OTM) positions

Initially only the Position details are displayed



Option Exercise/expiry												
Market Data												
Date: 15/02/2018												
Description	Counterparty	Counterparty Acct	Client	Client Acc	Option Type	Strike	SVN	Exercise Type	Position	Open Trades	Long Qty	
EXEUR-WAT-O/CALL/150/SVN0/JUN18	UBS CTPTY	UBS Clients	BA001	BA001_A	CALL	150		0 American	LONG	3		40

Expanded to show Open Trades

Market Data Strik Strik <th>Soption Exercise/expiry</th> <th></th> <th>_</th> <th>— X</th>	Soption Exercise/expiry																		_	— X
take: 1502/2018	Market Data																			
Counterparty Counterparty<	Date: 15/02/2018										2				3					
Concentration Control	Description	Counterparty	Counterparty Acct	Client	Client Acc	Option Type	Strike	SVN	Exercise Type	Position	Open Trades	Long Qty	Short Qty	Underlying	ITM / OTM	Exercise	Exercise Quantity	Assign	Assign Qua	Expiry
Trade Date Trade Id Pention Quantity Dercise Dercise Dercise Assign Assign Quantity Express 06-3m-2018 59601 LONG 23 25 25 26 26 26 06-3m-2018 59602 LONG 10 20 10 26 26 26	XEUR-WAT-O/CALL/150/SVI	N0/JUN18 UBS CTPTY	UBS Clients	BA001	BA001_A	CALL		150	0 American	LONG		3	40	152.0000000	ITM	V	4	0		
00-3m-2018 59600 L0NG 25 2 25 3 0 25 3 0 00 1 20NG 00-3m-2018 59602 L0NG 10 0 10 0 10 0 10 0 0 0 0 0 0 0 0 0 0	Trade Date	Trade Id	Position		Quantity		E	Exercise		Exercise Qua	antity	Assign		Assign Q	Jantity	Exp	iry		Internal	
	08-Jan-2018	59600	LONG				25		7	5		25								
	08-Jan-2018	59602	LONG				10		V			10					-		•	
Aldo Searcian Janahan Basak																Auto Ev	arries	ânaki	Barat	Carcel

- 1. Expand / Collapse button to display the individual open trades
- 2. Open Trades count
- 3. In-The-Money (ITM) and Out-The-Money (OTM) indicator; based on the Underlying Price
- 4. Position level checkboxes and quantity
- 5. Open Trade level checkboxes and quantity

6. Internal flag, to set Internal trade keyword typically used to identify 'internal trades' for specific Fee calculations (e.g. zero exchange fees)

On successful processing the exercise, assignment, expiry liquidations are presented in the Liquidation widget, where they can be Unliquidated if the process needs to be reverted.

Auto Exercise Buttons



- Auto Exercise / All
 - Set Assign & Exercise fields for both Long and Short ITM trades on expiry date
 - Set Expiry fields for both Long and Short, ATM and OTM trades on expiry date
- Exercise Set Exercise fields for Long ITM trades on expiry date
- Assign All Set Assign fields for Short ITM trades on expiry date
- Assign Random
 - Highlight lines to apply the assignment; must be for the same Product
 - Enter 'Assignment Quantity'
- Assign Pro Rata
 - Highlight lines to apply the assignment; must be for the same Product
 - Enter 'Assignment Quantity'
- Expiry Set Expiry fields for both Long and Short ATM and OTM trades on expiry date

3.4 Show Trade

Launched by highlighting lines and right-click action 'Show Trade'

Applicable in widgets

• Trade Open Quantity

Will display the trade in the Pricing Sheet or Trade Windows depending on the systems default configuration.

3.5 Merge / Split

Launched by highlighting lines and right-click action 'Process - ETD Merge/Split'

Applicable in widgets

• Trade Open Quantity

▶ Please refer to Calypso ETD Clearing documentation for details on these processes.

3.6 Unliquidate

Launched by highlighting lines and right-click action 'Unliquidate'

Applicable in widgets

• Liquidated Position

Will revert a Manual Liquidation, Futures Expiry and Option Exercise, Assignment, Expiry.