

Calypso User Guide ETD: Position and Trade Archiving

Version 1.0 09 Oct 2024 Draft



Copyright © 2025, Nasdaq, Inc. All rights reserved.

All content in this document is owned, or licensed, by Nasdaq, Inc. or its affiliates ('Nasdaq'). Unauthorized use is prohibited without written permission of Nasdaq.

While reasonable efforts have been made to ensure that the contents of this document are accurate, the document is provided strictly "as is", and no warranties of accuracy are given concerning the contents of the information contained in this document, including any warranty that the document will be kept up to date. Nasdaq reserves the right to change details in this document without notice. To the extent permitted by law no liability (including liability to any person by reason of negligence) will be accepted by Nasdaq or its employees for any direct or indirect loss or damage caused by omissions from or inaccuracies in this document.

Document History

Revision	Published	Author(s)	Summary of Changes
1.0	9 October 2024	Matthieu Delpeuch	First Draft

09 Oct 2024

Version 1.0 / Draft Private and Confidential



Table of Contents

1	Back	ground	
2	Arch	iving	5
	2.1	Position archiving	5
	2.2	Trade and linked objects archiving	7
3	Purg	e tables	10

09 Oct 2024

1 Background

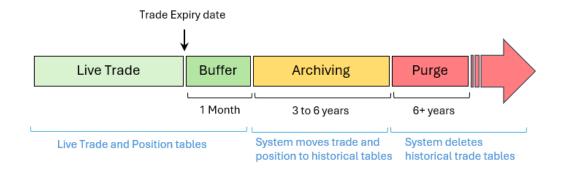
🗾 Nasdaq

Calypso helps archiving trades and positions in order to preserve the performance of the system by freeing up the "live tables", but without compromising the regulatory requirement of keeping the records available (in the US for instance, from 3 to up to 6 years depending on the transactions). This is done by moving the trades and positions from the live tables to historical tables, meaning the records will still be available if needed. Once the holding period is over, it will be possible to completely delete the transactions from the data base. Due to the nature of the ETD business and the important trading volume, we do recommend clients to define an archiving process.

Note that this document is only a recommended approach that each client will need to adapt to their business, region and regulatory requirements.

Please also refer to the Calypso ScheduledTask User Guide for further details on the available archiving parameters.

Example of an ETD archiving process



09 Oct 2024

2 Archiving

Nasdaq

The position need to be archived before the trades (and related objects such as transfers, fees, etc.), with the pre-requisite that there is no trade open quantity left (should be null or zero), meaning that the position has expired or has been offset. The system will not allow the position to be archived if this is not the case.

The second requirement before proceeding to the archiving, which is valid for both, position and trade archiving, is that the underlying contract has expired. This is a functional requirement (not mandatory and not limited by the system), that will limit operational issues post archiving

2.1 Position archiving

Set up 'ARCHIVE_POSITION' scheduled task for your PO

Scheduled Task I	Definition		
	ow to define the attributes for the task to be executed. d task specific attributes. Scheduling of the task is perf	These attributes will control the behavior of the task. There are two types of attribute ormed using the Task Trigger Definition dialog	es, general attributes which are the same
Task Description			
Task Type:	ARCHIVE_POSITION		
External Reference:	ETD Position Archiving		
Comments:	ETD Position Archiving		
Description:	ETD Position Archiving		
- Execution Parameters	-		
Attempts: 1	Retry After: 0 minutes Expected I	xecution Time (SLA): 6 minutes	
		Account hime (SEA).	
JVM Settings: -Xms5	12m -Xmx1024m		•••
Log Settings:			
Task Notification Options			
		v	
Common Attribut	25		
Task ID		93502	
Processing Org		BANK ALPHA	
Trade Filter		ETD Pos Archiving	
Filter Set			
Pricing Environment			
Timezone		America/New_York	
Valuation Time Hour			
Valuation Time Minut			
Undo Time Hour		0	
Undo Time Minute		0	
Valuation Date Offse	t		
From Days		0	
To Days		0	
Pricer Measures			
Business Holidays			
Task Attributes			
UNARCHIVE PROCES	s		
UNARCHIVE BOOK II)		
UNARCHIVE PRODUC	T ID		
UNARCHIVE FROM (1	1M-DD-YYYY)		
INCLUDE ALLOCATED	TOQ		
Liquidation Engine			
Check excluded xfer	statuses		
Handle Repo trades			
THREAD COUNT			
UNARCHIVE THREAD			
Restore Trades by N	et Id		
ame) scription)			

09 Oct 2024

Version 1.0 / Draft Private and Confidential



Define a trade filter on the Scheduled Task: specify in the 'Date/ Time' tab a new rule based on 'MaturityDate'. In the example below we will archive the position 1 month after the contract has expired, but you can define a tenor according to your own preferences.

🙏 Trade Filter [18241101/XDER/]	- 🗆 ×
Name ETD Pos Archiving	Time Zone NONE
Comment	Holidays
	Check Holidays
Use SQL Generate SQL	Parent NONE
Cache trades on load Set as default parent	Groups
Position Spec Counterparty Portfolio Hierarchy Diary Ranges Date / Time Product Criteria Trade Criteria	Criteria Enrichment Criteria Order Spec TR / PO Role Underlying Security Custom Criteria Post Processing
New Rule 🔀 Remove All Rules 🖃 Collapse / Expand F	anels
MaturityDate is before -1M	X \$
MaturityDate is before	▼ specific tenor ▼
Tenor: -1M	
Indude null	

If needed, it is also possible to further refine the trade filter criteria, for instance by adding the product type to be processed.

🔌 Trade Filter [1824]	1101/XDEF	V]					-		×
Name ETD	Pos Archiv	ving			Time Zone	NONE			-
Comment					Holidays	lolidays			
Use SQL	Ger	nerate SQL		Parent NOM	VE				Ŧ
Cache trades o	on load	Set as d	efault parent	Groups					
Position Spec Co Ranges Date / Tr		v Portfolio H duct Criteria	ierarchy Diar Trade Criteria		nrichment Cr Security	iteria Or Custom Cr	der Spec iteria		/ PO Role ocessing
Currency	V IN								
Product Type	V IN	FutureFX,Fut	ureMM						
Product Family	V IN								
Rate Index	V IN								
Ccy Pair	V IN								
Sub Type	V IN								
Extended Type	V IN								
Product Id	⊡ IN								
Sec Code									
Description		_							
Market Place	V IN							Chec	k
Has Leg Types	✓ IN					1			
Refere	nce Entity						Add		N
						Re	emove		

09 Oct 2024

Version 1.0 / Draft Private and Confidential

2.2 Trade and linked objects archiving

Nasdaq

Once the ARCHIVE_POSITION Scheduled Task has been completed and moved all the eligible positions to the historical tables, it will be possible run the ARCHIVE_TRADE_GRAPH Scheduled Task to archive the trades and linked objects (such as transfers, messages, posting, trade attributes etc.). Note that we are recommending ARCHIVE_TRADE_GRAPH ST because it has improved performance and the legacy ST ARCHIVE_TRADE, will eventually be deprecated.

Define ARCHIVE_TRADE_GRAPH Scheduled Task for your PO and set 'PHASE' attribute to 'Archive: Prepare and Move'

It is recommended to chain ARCHIVE_POSITION and ARCHIVE_TRADE_GRAPH Scheduled Tasks

Scheduled Task [Definition		Х
		ese attributes will control the behavior of the task. There are two types of attributes, general attributes which are the same ed using the Task Trigger Definition dialog	
Task Description			
Task Type:	ARCHIVE_TRADE_GRAPH		-
External Reference:	ETD Trade Archiving		
Comments:	ETD Trade Archiving		ᆌ
Description:	ETD Trade Archiving		-1
Execution Parameters			
Attempts: 1	Retry After: 0 minutes Expected Exec	cution Time (SLA): 6 minutes	
JVM Settings: -Xms!	512m -Xmx1024m		
Log Settings:			
Task Notification Options	s Publish Business Events To User:		
🗆 Common Attribut	es		-
Task ID		93501	
Processing Org		BANK ALPHA	
Trade Filter		ETD Trades Expired	
Filter Set			
Pricing Environment			
Timezone		America/New_York	
Valuation Time Hour			
Valuation Time Minut	œ		
Undo Time Hour		0	
Undo Time Minute		0	
Valuation Date Offse	2t		
From Days		0	
To Days Pricer Measures		0	
Business Holidays			
Task Attributes PHASE		Archive: Prepare and Move	
IGNORE PRODUCT E		Archive: Prepare and Move	
BLOCK_SIZE	ROR		
HINT			
USE ROWS HINT			
MAX_NET_SIZE			
MinNetSizeRequired	BySplit		
TIME_LIMIT			
DELETE_SLICES			
Skip Account Balance	e Check		
Trade id			~
Name)			_

09 Oct 2024



Like for the position archiving, define a new rule in the 'Date/ Time' tab that should match the maturity date rule defined on ARCHIVE_POSITION Scheduled Task, for instance archive the trades 1 month after the contract has expired

Trade Filter [18241101/XDER/]	- 🗆 ×
Name ETD Trades Expired	Time Zone NONE
Comment	Holidays
	Check Holidays
Use SQL Generate SQL Parent NO	INE 🗾
Cache trades on load Set as default parent Groups	
Position Spec Counterparty Portfolio Hierarchy Diary Criteria	Enrichment Criteria Order Spec TR / PO Role
Ranges Date / Time Product Criteria Trade Criteria Underlyin	ng Security Custom Criteria Post Processing
📑 New Rule 🔀 Remove All Rules 🖃 Collapse / Expand Panels	
MaturityDate is before -1M	××

Again is possible to further refine the trade filter by looking up the product type and/ or the trade status

🔌 Trade Filter [1	8241101/XDEF	V]					-	I		\times
Name	ETD Trades Ex	pired]		Time Zone	NONE			-	·
Comment					Holidays					
					Check H	lolidays				
Use SQL	Ger	nerate SQL		Parent NON	١E				-	·
Cache trac	des on load	Set as defai	ult parent	Groups						
		Portfolio Hiera duct Criteria Tr	archy Diary rade Criteria		nrichment Cr Security	iteria (Custom (TR / PO I t Proces	
Ranges Date	rime rito		aue criteria	Ondertying	Jecunty	Custom	Interia	FUS	L FIOCES	sing
Curre	ncy 🗹 IN									
Product T	ype 🗹 IN	FutureFX,Future	MM							
Product Far	mily 🔽 IN									
Rate Inc	lex 🔽 IN									
Ccy F	Pair 🗹 IN									
Sub Ty	rpe 🗹 IN									
Extended Ty	pe 🗹 IN									
Product	Id 🔽 IN									
Sec Co	ode									
Descrip	tion Like	_								
Market Pla	ace 🗹 IN						[Cł	neck	
Has Leg Typ	oes 🗹 IN									
Re	ference Entity						Add	6	Z IN	
							Remove			

09 Oct 2024

Version 1.0 / Draft Private and Confidential



Trade Filter [1824110	1/XDER/]					-		\times
Name ETD Tra	ides Expired			Time Zone Holidays				r
Use SQL	Generate SQL		Parent NON	E Check H	lolidays			-
Cache trades on lo	oad 🗌 Set a	as default parent	Groups					
Position Spec Count Ranges Date / Time	erparty Portfol Product Criteri			nrichment Cr Security	iteria Or Custom Cri		TR / PO st Proces	
BUY S	_	Internal 🔽 E:	xternal					
Bundle		Id 🔻						
Bundle Attribute								
Book								
Trader	☑ IN							
Status	IN IN	CLEARED, EXPIRED,	TERMINATED,	VERIFIED				
Sales								
Book Attribute								
Keyword Value								
Keyword	Has 🔻							
Market Type								
Market Place								
Currency	IN IN							

09 Oct 2024

3 Purge tables

Nasdaq

Purging the archived tables should only be done, once there is no longer a regulatory requirement to keep the records. Once purged, the data will no longer be available.

Note that purging the DB tables is currently limited to the trades (and linked objects) only. Positions cannot be purged.

Define ARCHIVE_TRADE_GRAPH Scheduled Task for your PO and set 'PHASE' attribute to 'Purge: Prepare and Delete'

It is also required to set 'Valuation Date Offset', for instance to 1 day

& Scheduled Task D	efinition		×
Scheduled Task	Definition		_
	ow to define the attributes for the task to be executed. These ad task specific attributes. Scheduling of the task is performed a	attributes will control the behavior of the task. There are two types of attributes, general attributes which are the same using the Task Trigger Definition dialog	
Task Description			
Task Type:	ARCHIVE_TRADE_GRAPH		1
External Reference:	ETD Trade Purge		1
Comments:	ETD Trade Purge		
Description:	ETD Trade Purge		
Execution Parameters			-
Attempts: 1	Retry After: 0 minutes Expected Execution	on Time (SLA): 6 minutes	
WA Cattingan Vana	512m -Xmx 1024m		h.
JVM Settings: -Xms5	12m -Xmx 1024m		4
Log Settings:			
Task Notification Options			
	Publish Business Events To User:		
	Publish busiless Events To user.		
Common Attribut	85		~
Task ID		94001	
Processing Org		BANK ALPHA	
Trade Filter		ETD Trade Purge	
Filter Set			
Pricing Environment			
Timezone		America/New_York	
Valuation Time Hour			
Valuation Time Minut	e		
Undo Time Hour		0	
Undo Time Minute		0	
Valuation Date Offse	et .	1	
From Days		0	
To Days		0	
Pricer Measures			
Business Holidays			
Task Attributes			
PHASE		Purge: Prepare and Delete	
IGNORE PRODUCT E	RROR		
BLOCK SIZE			
HINT			
USE ROWS HINT			
MAX_NET_SIZE			
MinNetSizeRequiredE	3vSplit		
TIME_LIMIT	,		
DELETE SLICES			

09 Oct 2024





Define a trade filter with a maturity date rule in the 'Date/ Time' tab for instance purge the trades 6 years month after the contract has expired. You will also need to define a date rule for UpdateDate.

You can also define further parameters such as product type and trade status if needed.

🔌 Trade Filter [1	8241101/XDER/]			-	
Name	ETD Trade Purge		Time Zone	IONE	-
Comment			Holidays		
			Check Hol	lidays	
Use SQL	Generate SQL	Parent	NONE		•
Cache trac	des on load 🛛 🗌 Set as default	t parent Groups			
	Counterparty Portfolio Hierard				
Ranges Date	e / Time Product Criteria Tra	de Criteria Under	lying Security C	Custom Criteria	Post Processing
📑 New Rule	🗙 Remove All Rules 🛛 🗼 Collap	ose / Expand Panels			
MaturityDa	ate is before -6Y include null				××
UpdateDa	te is before -6Y 00:00				××

09 Oct 2024

Version 1.0 / Draft Private and Confidential