



Alpha Protect Cancel and Protect Reprice Orders

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Functionality Overview

Protect Cancel and **Protect Reprice** are optional order instructions allowing clients to execute orders only on Alpha ATS with protection from trade-throughs or locking/crossing the NBBO. This offering complements Alpha's Order Router TTM Service which upholds the Order Protection Rule by routing the orders to other marketplaces with better priced orders before trading on Alpha ATS.

Protect Cancel and Protect Reprice orders trade as much as possible on Alpha ATS without causing a trade-through (trade outside the NBBO) or a book-through (locking or crossing the NBBO on posting), and without routing to other marketplaces:

- A Protect Cancel order will execute on Alpha ATS to the extent possible before cancelling any residual volume.
- A Protect Reprice order will execute on Alpha ATS to the extent possible before booking any residual volume one tick away from the opposite side of the NBBO. Once the order is booked on Alpha with the adjusted price, this price of the order will not change with subsequent changes to the NBBO.

Trade-through and/or book-through protection continues to apply to any subsequent order price changes, such as short sell re-peg to NLSP, user price amendment, or triggering of an on-stop order. Protection does not apply to replenished iceberg quantity but does apply when assigning a price to unfilled market order.

Protect Cancel and Protect Reprice instructions can be used on all Directed Action Orders (DAO) other than Special Terms, Odd Lot, IntraSpread™ and ROC orders. TTM (non-DAO) orders are inherently protected from trade-throughs and book-throughs so they cannot be designated as Protect Cancel or Protect Reprice.

Protect Cancel Examples:

Alpha			
Bid Vol.	Bid	Offer	Offer Vol.
100	10.01	10.03	100
100	10.00		

Marketplace 1			
Bid Vol.	Bid	Offer	Offer Vol.
100	10.01	10.02	100

- NBBO is 10.01-10.02
- ➔ User enters Protect Cancel Sell 100 @ 10.03 on Alpha
- ⬅ The order is booked at 10.03 on Alpha as it cannot trade with any orders on Alpha and it will not lock or cross the NBBO.
- ➔ User enters Protect Cancel Buy 100 @ 10.02 on Alpha
- ⬅ The order is cancelled as booking the order would lock the NBBO at 10.02
- ➔ User enters Protect Cancel Buy 100 @ 10.03 on Alpha

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- ← The order is cancelled as trading with the 10.03 offer on Alpha would trade through the 10.02 offer on Marketplace 1.
- User enters Protect Cancel Sell 200 @ 10.00 on Alpha
- ← 100 @ 10.01 trades on Alpha
- ← Remaining 100 is cancelled as trading with the 10.00 bid on Alpha would trade through the 10.01 offer on Marketplace 1.

Protect Reprice Examples:

Alpha			
Bid Vol.	Bid	Offer	Offer Vol.
100	10.01	10.03	100
100	10.00		

Marketplace 1			
Bid Vol.	Bid	Offer	Offer Vol.
100	10.01	10.02	100
100	9.99	10.03	200

- NBBO is 10.01-10.02
- User enters order #1 Protect Reprice Sell 100 @ 10.03 on Alpha
- ← Order #1 is booked at 10.03 on Alpha as it cannot trade with any orders on Alpha and it will not lock or cross the NBBO.
- User enters order #2 Protect Reprice Buy 100 @ 10.02 on Alpha
- ← Order #2 is re-priced to 10.01 and booked on Alpha, as booking it at 10.02 would lock the NBBO. (total Alpha bid vol @ 10.01 is now 200)
- User enters order #3 Protect Reprice Buy 100 @ 10.03 on Alpha
- ← Order #3 is re-priced to 10.01 and booked on Alpha, as trading with the 10.03 offer on Alpha would trade through the 10.02 offer on Marketplace 1. (total Alpha bid vol @ 10.01 is now 300)
- The offer for 100 @ 10.02 on Marketplace 1 is cancelled and the NBBO becomes 10.01-10.03.
- No updates to orders #2 and #3.
- NBBO is 10.01-10.03
- User enters order #4 Protect Reprice Sell 400 @ 10.00 on Alpha
- ← 300 @ 10.01 trades on Alpha
- ← Remaining 100 of order #4 is booked at 10.02 as not to trade through or book through the 10.01 bid on Marketplace 1.
- NBBO is 10.01-10.02; NLSP = 10.01
- User enters order #5 Protect Reprice Short Sell 100 @ 10.00 on Alpha
- ← Order #5 is re-priced to 10.02, which is the higher of the NLSP and the price required to avoid trade-through or book-through of the 10.01 offer on Marketplace 1.
- The bid for 100 @ 10.01 on Marketplace 1 is cancelled and the NBBO becomes 10.00-10.02.
- ← The Order #5 remains priced at 10.02
- ← The NLSP changes to 10.00
- ← The Order #5 is priced at its original limit of 10.00 and trades with order on Alpha @10.01

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EMAPI and FIX Protocols

Protect Cancel Order Messages

Message	EMAPI Protocol	FIX Protocol
Order Entry	protectionType = PROTECT_CANCEL Included on: EmapiOrderInsertReq EmapiOrderUpdateReq EmapiPrivateOrderbookEvent	Protection (7968) = Protect Cancel (1) Included on: New Order - Single Order Cancel/Replace Request Execution Report
Cancelled due to OPR Protection	EventSubType = CANCEL_PROTECTED Included on: EmapiPrivateOrderbookEvent	OrdStatus (39) = Cancelled (4) ExecType (150) = Cancelled (4) Text (58) = "OPR Protection: the order would lock/cross the NBBO or would trade through a protected quote". Included on: Execution Report (ACK)

Protect Reprice Order Messages

Message	EMAPI Protocol	FIX Protocol
Order Entry	protectionType = PROTECT_REPRICE Included on: EmapiOrderInsertReq EmapiOrderUpdateReq EmapiPrivateOrderbookEvent	Protection (7968) = Protect Reprice (2) Included on: New Order - Single Order Cancel/Replace Request Execution Report
Repriced due to OPR Protection	EventSubType = PRICERECALCULATED Included on: EmapiPrivateOrderbookEvent	OrdStatus (39) = Replaced (5) ExecType (150) = Restated (D) ExecRestatementReason (378) = 3 (Repricing of Order) Text (58) = "OPR Protection: the order would lock/cross the NBBO or would trade through a protected quote". Included on: Execution Report (ACK)

For further protocol details please see Alpha Trading Systems EMAPI Programmers Guide, Alpha Trading Systems FIX Specification and Alpha Trading Systems FIX Message Sequence Flows Guide.

For more information on Alpha's OPR implementation please contact Alpha Trading Services at 647-259-0450 / 877 - ATS ALF1 or email clientservices@alphatradingsystems.ca

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