

FREQUENTLY ASKED QUESTIONS: NASDAQ OMX BX Options

1. What is the priority/execution model on BX Options?

BX Options supports more than one allocation method and priority model. Certain products will trade in price/time priority. Other products will be subject to a pro rata execution allocation. Both the price/time priority and pro rata model offer customer priority. The allocation model of a particular product will be listed on the BX Options System Settings webpage.

2. Can I use the same interface specifications for BX Options, PHLX and NOM?

Yes. NASDAQ OMX's three U.S. options exchanges share the low latency INET technology architecture and provide customers with a common customer service experience, data input and output across the three exchanges. Common elements include:

- **SQF** – Bulk quoting Market Making API that allows up to 200 quotes in one block message.
- **FIX interface** – Common FIX Specification for NOM and BX Options.
- **Market Data:**
 - Common Top of Book feed across all markets (BONO/TOPO/BX Top)
 - Common depth feed across NOM and BX Options (ITTO and BX Depth)
- **Shared customer and trade support services** - +1 215 496-1571 or BXOptions@NASDAQOMX.com
- **NDAQOptions.com** (formerly MyPHLX.com) – data portal providing billing and trade detail information.

3. What are the hours of operation for BX Options?

The daily system timeline is as follows (all Eastern Time):

- 7:30 a.m. – System begins accepting orders.
- 9:25 a.m. – System begins disseminating imbalance and price information for the opening auction.
- 9:30 a.m. – System begins executing orders.
- 4:00 p.m. – System stops accepting and executing options orders for options with a “Normal” closing time. (Refer to the Options Closing Type in the symbol directory.)
- 4:15 p.m. – System stops accepting and executing options orders with a “Late” closing time. (Refer to the Options Closing Type in the symbol directory.)

4. How does the BX Opening Auction work?

The BX Opening Auction collects all pre-market quotes and orders and matches all eligible interest at the price at which any imbalance is minimized and matched contracts are maximized. Beginning at 9:25:00 a.m., ET, indicative prices, paired contract volume and imbalance contract volume are disseminated every five seconds until the option opens for trading.

BX will open an option for trading after 9:30 a.m. in a given symbol once the underlying symbol is open and a Valid Width NBBO is present. A Valid Width NBBO is defined as the best available bid/ask spread, comprised of all BX-registered Market Maker orders and quotes and all away market quotes that are eligible

for trading and meet a specified bid/ask differential as determined by the Exchange. The Valid Width NBBO values can be found on the [BX System Settings](#) page.

5. What happens if there is no Valid Width NBBO present?

If a Valid Width NBBO is not present and there is no trade possible, BX will open the option when a certain number of away markets have disseminated a firm quote on OPRA or a certain period of time has elapsed. These values can be found on the [BX System Settings](#) page. BX will not open with a trade if there is no Valid Width NBBO present.

6. How does BX determine if the underlying security is open?

An underlying is considered open when there is either a post-9:30 quote or trade from the primary listing market for the underlying.

7. What happens to marketable orders if they are not executed in the opening auction?

Once the auction occurs, orders that are marketable against the NBBO but not executable in the opening auction will be routed to better-priced away exchanges or posted on the BX book (depending on whether they are routable (SEEK or SRCH) or Do Not Route (DNR) orders).

8. Will BX cancel my orders if it is unable to open a symbol?

The BX opening process includes an Opening Order Cancel Timer. Firms may elect to have orders canceled back to them when BX has not opened in a symbol and the primary underlying market has been open for a certain period of time. The Opening Order Cancel Timer setting is available on the [BX System Settings](#) page. Firms can elect this feature by contacting Subscriber Services.

9. Which Time-in-Forces (TIFs) will be accepted on BX Options?

TIFs of Immediate-or-Cancel (IOC), Day, and Good-Til-Cancelled (GTC) are accepted on BX Options depending on the order type.

10. Does BX Options support All-or-None (AON) orders?

Yes. BX Options treats AON orders as IOC regardless of the TIF on the order. However, firms may choose to have BX Options reject AON orders with TIFs other than IOC. Please contact [NASDAQ OMX Subscriber Services](#) to request AON order rejection.

11. Does BX Options allow a cancel/replace of an order from DAY to GTC?

Yes. BX Options allows firms to cancel/replace Day orders to GTC orders.

12. Does BX Options support price improvement?

Yes. PRISM is BX Options' Price Improvement Mechanism through which paired orders, both a buy and a sell order, may be submitted in one order message to initiate an auction at a 'stop price' and seek potential price improvement. Currently this mechanism supports single legged orders that are stopped at or within the NBBO. Please refer to [PRISM FAQ's](#) for additional information.

13. How does BX Options handle orders it receives that would lock or cross the BX Options book or the National Best Bid and Offer (NBBO)?

After the opening process, if BX Options receives an order that would lock or cross a quote or order on the BX Options book, it will immediately execute. If the order would not lock or cross BX Options, but would lock or cross another exchange, BX Options will place the order on the book at the locking price and display such order at the better of one Minimum Price Variation (MPV) tick away from the locking price or the established Exchange BBO. When an order rests or resides on the book at a price which locks/crosses

the away market, an Order Exposure Alert will be disseminated. Routable orders with remaining quantity after being exposed will be routed at the end of the Route Timer. Non-routable order with remaining quantity after being exposed will be placed on the order book at the locking price and displayed at a price one MPV tick away from the locking price.

14. What is Order Price Protection (“Fat Finger”)?

Order Price Protection (“Fat Finger”) provides protection for orders that are egregiously mis-priced. If an order is received and it is priced through the NBBO or the best interest on the Exchange by a defined percentage upon receipt, the order will be rejected.

15. What are the Order Price Protection settings on BX Options?

The BX Options Order Price Protection settings will be identical to the NOM and PHLX Order Price Protection settings:

Order Type	$\leq \$1.00$	NBO Value (for buys) or NBB Value (for sells) $> \$1.00$
Buy Limit	$(100\% * NBO) + NBO$	$(50\% * NBO) + NBO$
Sell Limit	No Threshold	$NBB - (50\% * NBB)$

16. What is Acceptable Trade Range (ATR)?

Acceptable Trade Range (ATR) places a limit on the range of prices at which an order can execute. When an ATR is reached, the order will be posted at the ATR price for a limited period of time. Once that time has passed, the order will execute further to the next ATR level. Firms have the option of having their orders cancelled after an order has reached an ATR limit.

17. What are the ATR settings?

Please refer to the System Settings document posted on the BX Options webpage.

18. Does BX Options offer self trade prevention?

Yes. BX offers AIQ which is a self-trade prevention mechanism for market makers. Market makers sending quotes or sweeps over SQF or orders over FIX using their exchange identifier (ie.badge/suffix) or some combination thereof will never trade with themselves. Instead, the incoming quote or order will be accepted and the resting quote or order will be cancelled.

19. Is risk protection functionality available?

Yes, BX Options offers the same Rapid Fire Risk Monitor Mechanism that is offered on the PHLX and NOM trading systems. Rapid Fire and Purge will be available for all market making interest entered over SQF based on a firm’s participant ID.

20. Does BX Options offer order routing?

Yes. BX Options orders may be marked as Do Not Route (NSDQ or DNR), SEEK, or SRCH.

21. How does the “SEEK” routing strategy work?

If an order is marketable upon entry (i.e. it is priced at or more aggressively than the prevailing NBBO), the order will check the BX Options book at the price of the NBBO. If the order is not fully executed it will trigger an Order Exposure alert allowing BX Options’ participants to interact with the order and route after a period of time to other exchanges at the NBBO. If an order is posted on the BX Options book at its limit price, it will not be eligible to re-route.

22. How does the “SRCH” routing strategy work?

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If an order is marketable upon entry (i.e. it is priced at or more aggressively than the prevailing NBBO), the order will check the BX Options book at the price of the NBBO. If the order is not fully executed it will trigger an Order Exposure alert allowing BX Options' participants to interact with the order and route after a period of time to other exchanges at the NBBO. Once the order posts on the BX Options book at its limit price, if an away exchange locks or crosses its price, it will re-route to the exchange locking or crossing its price.

23. How does Order Exposure Alert functionality work?

When BX Options receives an order that locks/crosses an away market price, the Exchange will place the order on the book at the locking price and display the order at the better of one Minimum Price Variation (MPV) tick away from the locking price or the established Exchange BBO. When this occurs an Order Exposure Alert will be disseminated via BX Options Depth of Market and Specialized Quote Feed (SQF). For the duration of the Order Exposure period, currently set at 200 milliseconds, Participants may respond to the Order Exposure Alert by sending orders, sweeps, or quotes. If an order, sweep, or quote is received that is executable against the resting order, it will be executed immediately. Routable orders with remaining marketable quantity after the Order Exposure period will be routed to the away market. Non-routable orders will remain on the book.

24. Does BX Options have a complex order book?

No. BX Options will not support complex orders.

25. Can firms that are not Market Makers enter orders on both sides of the market?

Yes. All BX Options members are allowed to enter orders on both sides of the market (i.e. simultaneous buys and sells).

26. What are the Customer order exposure requirements on BX Options?

Firms must expose customer orders for **one second** before trading against them (excluding orders submitted to PRISM), as described in the proposed BX Options rules. Firms will be able to use the "WAIT" order type to facilitate this exposure period. The firm must enter both the customer order and the firm/Market Maker order separately and simultaneously and mark the firm/Market Maker order as a "WAIT" order. The system will hold the firm/Market Maker order for one second before sending it to the matching engine. If the customer order is not already executed and there are no other orders with higher priority, the firm/Market Maker order will execute against the customer order. The "WAIT" modifier is not intended to be used on the customer side of the transaction. See FAQ # 31 for instructions on how to enter a WAIT order.

27. How do firms reconcile open Good-Til-Cancelled (GTC) orders on a daily basis?

A daily open order report is available to firms for reconciliation of open GTC orders. The report is available in the same format as the NOM Open Order report.

28. What interface is used for order entry?

Order Entry Firms use the FIX interface to send orders to BX Options.

29. What interfaces are used for market making?

Market Making firms may use SQF, a highly efficient bulk quoting interface that allows Market Makers to enter up to 200 quotes in one message.

30. How should firms mark their orders as "Do Not Route?"

Order Entry Firms using FIX that want to mark an order as "Do Not Route" should populate the "ExecBroker" field (Tag 76) with "DNR". SQF sweeps are never routable.

31. How should firms mark their orders as routable?

Firms should populate the “ExecBroker” field (FIX Tag 76) with “SEEK” or “SRCH” if they want their order to be routed when/if there are better prices available on other exchanges.

SQF sweeps cannot be routed. Market Makers who wish to take advantage of the BX Options routing functionality must use the FIX interface.

32. What interfaces supports Order Price Protection?

The FIX order entry interface supports Order Price Protection. Refer to question #13.

33. How does a firm designate an order as “WAIT?”

Firms should populate the “ExecBroker” field (FIX tag 76) with “WAIT”.

34. How should my firm populate the participant type (FIX Tag 47 Rule 80A/OrderCapacity) on FIX orders?

Firms must populate FIX Tag 47 Rule 80A/OrderCapacity properly. Below is a table of the current values. Please refer to the [FIX spec](#):

Code	Description	OCC Clearing
C	Public Customer i.e. Non-professional, non-broker-dealer	Clears as Customer
B	Broker-Dealer Order	Clears as Customer
F	Firm – OCC member Broker-Dealer Proprietary	Clears as Firm
M	NOM Registered Market Maker	Clears as Market Maker
O	Away Exchange Registered Market Maker	Clears as Market Maker
P	Professional, non-broker-dealer	Clears as Customer
J	Joint Back Office	Clears as Firm

35. What interfaces are available to clearing firms for drop copy / clearing information?

BX Options offers Drop Copies and the Clearing Trade Interface.

CTI – BX Options offers the same Clearing Trade Interface (CTI) that is offered on NOM and PHLX, which provides firms with a copy of executions that contain information similar to what is sent to the OCC for clearing. CTI messages include all details necessary to determine the fee or rebate incurred on the transaction.

DROP Copies – BX Options provides drop copies of all executions that occur on BX Options. The drop copies will be provided via a flexible configuration — per clearing member number, by participant MPID or by participant port.

36. How can firms associate BX Options executions with the OCC Trade Capture Report output?

The "Token" field in a BX Options execution message will equate to the "Order-Token" field provided on the order when it was originally submitted to BX Options ("ClOrdID" in FIX, Order ID in CTI).

This field is passed through to the OCC in the "ClOrdID" field of the OCC trade record and can be used to identify executions associated with particular orders submitted to BX Options.

37. Which field should be used if the entering firm would like to use a CMTA to clear the trade to a different clearing firm?

The CMTA clearing number can be entered in the "ClearingFirm" field (FIX tag 439).

38. Which FIX Field corresponds to "Sub Account/Position Account" on the OCC Trade Record?

"Sub Account/Position Account" is sometimes referred to as "Market Maker ID" or "Badge #" and is usually a three-character alpha-numeric acronym. The "Clearing Account" field (FIX Tag 440) corresponds to the OCC "Sub Account/Position Account" field.

39. How can firms perform post-trade allocations or transfers for trades executed on BX Options?

BX Options offers the [Options Maintenance Tool](#) to firms that need to perform post-trade allocations or transfers. Firms can subscribe to the Options Maintenance Tool by completing the NASDAQ OMX [Front-End Access Order Form](#) and faxing it to NASDAQ OMX Subscriber Services at +1 212 231 5426 or by calling +1 212 231 5180, option 3.

40. What are the Market Maker requirements on BX Options?

Market Makers should refer to Chapter VII of the proposed BX Options rules for Market Maker obligations. In summary, Market Makers have several obligations:

- Provide continuous two-sided liquidity for options overlying the securities for which the market maker is registered for 60% of the trading day (as a percentage of the total number of minutes in such trading day). This obligation will apply to all of a Market Maker's registered options collectively to all appointed issues, rather than on an option-by-option basis.
 - *Except:* Market Makers are not required to provide two-sided quotes in options with an expiration that is greater than nine months away, quarterly options, or options with a non-standard contract
 - Maximum quote width of \$5.
- Ensure that at least 75% of the Market Maker's trading activity on BX Options is in options in which they are registered as a MM on BX Options each quarter.

41. Can BX Options Market Makers register by series?

No. BX Options Market Makers are required to register by underlying.

42. Do Market Makers have a maximum quote width requirement at the open?

Yes, the \$5 maximum quote width requirement applies at all times. Quotes with a width wider than \$5 will not be considered valid quotes and do not satisfy quoting obligations. Quotes with a width wider than \$5 will not be rejected.

43. Are there any volume restrictions for Market Makers on BX Options?

At least 75% of a Market Maker's volume must be in options in which they are registered. Please review Chapter VII of the proposed BX Options rules which discusses Market Maker obligations and requirements.

44. Can a Market Maker or specialist on another exchange send BX Options orders with a capacity of "M"?

Away exchange registered Market Makers (i.e. not BX Options Market Makers) who send orders to BX Options must populate FIX Tag 47 (Rule80A/OrderCapacity) with "O".

Additionally, Market Maker firms should be sure to populate the "Clearing Account" field with their Market Maker sub-account ID (sometimes referred to as "Badge #" or "Market Maker ID").

45. What risk protection functionality is available?

BX Options offers the same Rapid Fire Risk Monitor Mechanism that is offered on the PHLX and NOM trading systems. The Rapid Fire Risk Monitor Mechanism cancels (purges) all market making interest entered over SQF, for a given participant ID, if/when certain execution thresholds are met for that participant.

46. How is NASDAQ OMX BX Options be represented by the Options Price Reporting Authority (OPRA)?

The OPRA Participant Code is "T". Please see the following link for full details:
http://www.opradata.com/specs/OMX_BX_032712.pdf

47. What is the blue sheet code for BX Options?

The blue sheet code is "F" for BX Options.

48. Does BX Options have a Market Identifier Code (MIC)?

Yes, the BX Options MIC is XB XO.

49. Does BX Options offer market data products/feeds?

Yes, BX Options offers the following proprietary data feeds:

BX Options Top Of Market (BX Top) – Disseminates the BX Options Best Bid and Offer information as well as BX Options last sale information — the same information BX Options will report to OPRA. By subscribing to BX Top directly from BX Options, participants can eliminate any extra transmission and processing latencies introduced by the securities information processor. BX Top is identical to the NOM and PHLX Top of Market data feeds.*

BX Depth of Market (BX Depth) – Designed to provide full order depth of BX Options using a series of order messages to track the life of an order. BX Depth will also support last sale information and Net

Order Imbalance data for the BX Options opening auction. BX Depth is identical to the NOM ITTO data feed.

BX Options Glimpse – A complement to BX Depth, this is a point to point data feed connection that provides direct data feed customers with the current state of the BX Options Book.

50. What testing opportunities are available?

BX Options testing is available daily in the Options Test Facility.

In order to access the Test Facility, firms should complete the [BX Options Port Request Form](#) and submit it to NASDAQ OMX Subscriber Services via fax at +1 212 231 5426. Once the port is configured and connectivity is established, firms should contact [NASDAQ OMX Trading Services](#) at + 1 215 496 1571 to coordinate the testing.

51. What methods can a Participant use to submit Contrary Exercise Advice notices?

A Contrary Exercise Advice (CEA) may be submitted by a Participant by using the Clearing Corporation's ENCORE system, a CEA form of any other national securities exchange of which the firm is a Participant and where the option is listed, or by sending an email to BXOptionsSurveillance@nasdaqomx.com.

Refer to Chapter VIII, Section 1 in the proposed BX Options rules for CEA cut-off times.

52. How does a firm become a BX Options participant?

Firms wishing to participate on BX Options will need to follow the membership application guidelines below. All applications should be accompanied by a clearing Letter of Guarantee. Firms that are not Self-Clearing need to complete this [Letter of Guarantee](#). Self-Clearing firms need to complete this [Letter of Guarantee](#).

Please note: the Membership Department will be accepting membership applications immediately, but the rules of BX Options are subject to filing and approval by the SEC.

- **NASDAQ OMX BX equities exchange members**
NASDAQ OMX BX members wishing to participate in the new BX Options market will be required to submit a [BX Options Participant Application and Agreement](#).
- **Broker-dealers who are members of FINRA or NASDAQ**
Broker-dealers who are already members of FINRA and/or NASDAQ, but not NASDAQ OMX BX members, will qualify for the short form [NASDAQ OMX BX membership application](#).
- **Broker-dealers who are not members of NASDAQ OMX BX, FINRA, or NASDAQ**
Applicants who are not already approved for membership with FINRA and/or NASDAQ will be required to submit a [full membership application](#). This is the same as the processes in place today for membership on NASDAQ and NOM.

Please submit applications to the NASDAQ OMX Membership Department:

NASDAQ OMX Membership Department
1900 Market Street, 2nd Floor
Philadelphia, PA 19103

Documents may also be submitted in PDF format via email to:

Membership@nasdaqomx.com

53. Who can I contact for real time trade and technical support?

BX Options Market Operations: +1 215 496-1571 or BXOptions@NASDAQOMX.com.

54. Where can I find additional information?

For additional information:

Visit the BX Options webpage: www.nasdaqtrader.com/bxoptions

Contact Transaction Services, U.S. Market Sales via email or at +1 800 846 0477.