



Update - Cboe Options Technology Integration Feature Pack 9 – Support for Complex Instruments with Underlying Stock Legs

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Overview (UPDATED)

Effective **Friday, August 16, 2019** ~~August 5, 2019~~, Cboe will introduce support for complex instruments with stock legs on EDGX Options (“EDGX”) Exchange.

The addition of Complex Automated Improvement Mechanism (C-AIM) with support for underlying stock legs will be postponed to a date yet to be determined. The new effective date for C-AIM will be communicated in a future notice.

These enhancements will be introduced as part of this Feature Pack release in preparation for the migration of Cboe Options Exchange ("C1") to Bats technology.

- Support for trading of complex instruments with a stock leg
- Complex Order Auctions (COA) with support for underlying stock legs
- ~~C-AIM with support for underlying stock legs~~
- Complex Qualified Contingent Cross (C-QCC) with support for underlying stock legs

Technical Details (UPDATED)

Order Composition and Order Entry

For all complex orders, the system will support instruments with up to 12 legs, 11 option legs plus 1 stock leg. Actual shares will be entered on the order for the stock leg (e.g., 100 shares is 100 shares). Round lot quantities will not be assumed. The maximum option to stock ratio permitted will be 8:100 (based on 100 shares deliverable), or the order will be rejected.

The system will only accept a complex order with stock strategy where the option legs all have the same deliverable amount. Members will be able to send Buy, Sell, Sell Short, or Sell Short Exempt on the stock leg portion of a complex order. A complex order sent with a Buy stock leg will be considered a Debit strategy regardless of how many buy or sell options legs the order contains. A complex order sent with a Sell stock leg will be considered a Credit strategy regardless of how many buy or sell options legs it contains.

Members may initiate a complex order by submitting a `New Order Cross Multileg` message and specifying the `CrossType` (FIX Tag 549) instruction. When using the long form of the request and specifying an equity leg, the equity leg must be the last element of the repeating group.

Printing and Clearing Stock Legs

Upon the effective date, the stock portion of complex orders will be printed and cleared by Cowen Execution Services (“CES”). Identification of the venue to which equity leg matching will be submitted is supported by the *EquityExDestination* instruction (FIX Tag 22016). Currently, the only valid value for *EquityExDestination* is Cowen Execution Services. Note that firms must have an existing relationship with CES in order to print and clear stock legs, and each firm must first affirm their relationship with CES by working with Cboe Membership Services to complete the [Option Execution Registration Form](#). Cboe anticipates adding additional brokers after the migration of Cboe Options Exchange to Bats technology is complete. **Additional broker information will be communicated via a Trade Desk notice.**

Pricing

The Net Limit Price of the complex order can be entered with up to four decimals and will be priced to the same decimal place when printed to the tape. The equity component of the Net Price represents the cost of 1 share. With the exception of C-QCCs, stock legs will always be priced at or inside NBBO and will always adhere to any trading restrictions in effect, such as Reg SHO and LULD. Regardless of drill-through protections, it will be permissible to trade stock legs up to \$0.0050 outside of the NBBO (but not the LULD bands) if necessary to avoid residual amounts.

Drill-Through Protection

Drill-through protection will apply to complex instruments with stock legs in the same manner as it applies to options-only instruments. If drill-through is set to zero, the system will fully protect both the options NBBO and the stock NBBO. If drill-through is set to a non-zero amount, the system may execute trades outside of the options NBBO only but not the stock NBBO.

Stock Legging Not Supported

Legging will not be supported for complex instruments with stock legs. Orders that are marketable against the synthetic spread book will be pegged and displayed at the most aggressive executable price.

Complex Order Auctions

COA auctions that support instruments with stock legs will follow the same rules specified for options only strategies, except they will not leg into the Simple Book. Stock legs will be priced at or inside NBBO and will adhere to any trading restrictions in effect, such as Reg SHO and LULD.

Rejects on Sell Short orders, or system issues with the clearing service, could cause part or all of the agency side not to be entirely filled. In such an event, the rejected stock quantity will result in a corresponding reduction of the total order quantity.

The COA price for a complex order may be the drill-through price if the order is subject to the drill-through protection.

Complex AIM with Support for Stock Legs (UPDATED)

The addition of Complex Automated Improvement Mechanism (C-AIM) with support for underlying stock legs will be postponed to a date yet to be determined. C-AIM auctions that support instruments with stock legs will follow the same rules specified for options-only strategies, except they will not leg into the Simple Book. Stock legs will be priced at or inside NBBO and will adhere to any trading restrictions in effect, such as Reg SHO and LULD.

Rejects on Sell Short orders, or system issues with the executing firms, could cause part or all of agency side not to be entirely filled. In such an event, the rejected stock quantity will result in a corresponding reduction of the total order quantity.

Complex QCC with Stock Legs

C-QCC auctions will support instruments with stock legs and will follow the same rules specified for options-only strategies unless specified below. C-QCC auctions with stock legs will be able to trade the stock leg outside of the NBBO. C-QCCs will not execute the options legs at prices outside of the NBBO. Drill-through amounts will be used to determine how far the order can trade outside the SNBBO and will be applied entirely to the stock leg.

If Rejects on Sell Short orders or system issues with the executing service cause part or all of agency side not to be entirely filled, the rejected stock quantity will result in a corresponding reduction of the total order quantity.

Updates to Options Trade Data Report and Trade Detail File

Upon the effective date, the Trade Data Report and Trade Detail file will be updated with two new columns: *Type* and *Underlying*. The Type field will indicate whether the security type is an equity or option. The Underlying field will indicate the underlying symbol.

Additional Information

For more information, refer to the following technical specifications:

- [US Options FIX Specification](#)
- [US Options BOE Specification](#)
- [US Options Complex Book Process](#)
- [US Options Complex Multicast PITCH Specification](#)
- [US Options Complex Auction Multicast PITCH Specification](#)
- [US Customer Web Portal Specification](#)

Please contact the Cboe Trade Desk, for support or with any questions. Additionally, you may refer to the C1 integration website for more details at <http://batsintegration.cboe.com/>.

We appreciate your business and remain committed to powering your potential with Cboe products, technologies, and solutions.

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