Functional Differences –
NYSE Group Options Platforms

This document provides a comparison of functional behaviors across both NYSE Options exchanges on Pillar.

For additional details including FIX, Binary and Market Data specifications, please visit https://www.nyse.com/pillar-options

		Standard Pillar	NYSE Arca Options	NYSE American Options
1	**Order Entry Time & Hours of Operation** **(all times represented as ET (Eastern Time))** *#General* *#Session*	**Open for connectivity:** 1:00 AM **Pre-open:** 6:00 AM - 9:30 AM (No Early Trading Session) **Opening auctions begin:** 9:30 AM **Core Session:** 9:30 AM - 4:00 PM* (No Closing Auction) (No Late Trading Session) * Some underlying symbols have late closing and remain in Core Session until 4:15 PM. List of underlying symbols with late closing. **Done-for-day:** 30 minutes after late closing time (4:45 PM) **Note:** Orders and quotes received outside the pre-open and core trading times are rejected.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
2	**Trading Session Eligibility on Orders** *#Gateways* *#General* *#Session*	Customers must set TradingSessionID tag to 2 (Core Trading Session).	Standard Pillar	Standard Pillar
3	**Ability to configure session level defaults** *#Gateways* *#General* *#Session*	The following session level default configurations are supported in all gateways for both orders and quotes: - Cancel on Disconnect - Order Priority Update Acknowledgment - Self-Trade Prevention - Test Symbols Only - Max Order/Quote Quantity - BOLD - ClientID for Self-Trade Prevention across multiple MPIDs	BOLD not available	Standard Pillar
4	**FIX Protocol Version** *#Gateways*	Both order entry and drop copy sessions support FIX 4.2.	Standard Pillar	Standard Pillar
5	**FIX Sequence Numbers** *#Gateways* *#OrderHandling*	The firm may not reset the client nor Exchange side sequence numbers on the “Logon Request” message. - The next expected client-side sequence number is provided by the Exchange in the tag NextExpectedMsgSeqNum (789) on both the “Logon Accept” and “Logout” messages. - The firm may increase the client-side sequence number by sending the “Sequence Reset” message but may not decrease it or reset it to zero. - For more information, see the “Pillar FIX Session Layer Handling” section of the “NYSE Pillar Gateway FIX Protocol Specification.”	Standard Pillar	Standard Pillar
6	**Firm Identifier** *#Gateways*	TPID is replaced by MPID (4 chars). MPID must be actively provided on each order.	Standard Pillar	Standard Pillar
7	**Clearing firm and CMTA Support** *#Gateways*	ClearingFirm is used to identify the CMTA clearing number. ClearingAccount is used to provide an optional clearing number that is different from the default clearing number for the associated MPID of an order.	Standard Pillar	Standard Pillar
8	**Give-up Support** *#Gateways*	The order sender must explicitly identify the MPID and the clearing number to clear the trade with, on an order-by-order basis.	Standard Pillar	Standard Pillar
9	**Default ClearingAccount on Order Acks**	If ClearingAccount is not populated on an order:	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#Gateways	- Pillar FIX - acks are populated with the default clearing number associated with the MPID on the order - Pillar Binary - it is not populated on acks.		
10	**FIX "Account" (Tag 1) Length Limitation on Inbound Orders & Cancel/Replace Requests** *#Gateways*	Inbound FIX Orders and Cancel/Replace Requests may be sent with up to 16 characters in FIX Tag 1, which is echoed back as-is on execution reports but truncated to 10 chars for clearing, end of day files, etc. Only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Standard Pillar	Standard Pillar
11	**Max Quantity** *#Gateways* *#OrderHandling* *#Quoting*	999,999 contracts. For Complex orders, the max value applies to the overall leg quantity (i.e., leg ratio x order quantity cannot exceed 999,999 contracts)	Standard Pillar	Standard Pillar
12	**Min Price** *#Complex* *#Gateways* *#OrderHandling* *#Quoting*	The minimum Limit or display price for a single leg order or quote is: - Min. price for Penny Program series symbols is $0.01. - Min. price for penny/nickel option series symbols is $0.01. - Min. price for nickel/dime option series symbols is $0.05. The minimum price for a single leg Cross order is $0.01, regardless of the options series. Special rules for Cabinet orders: - Min. price for all option series symbols is $0.00000001. The minimum Limit price for a Complex Order is $-214,748.36	Standard Pillar	Standard Pillar
13	**Max Price** *#Complex* *#Gateways* *#OrderHandling* *#Quoting*	The maximum Limit price for a single leg order/quote is as follows: - Max. price for Penny Program series symbols is $9,999.99. - Max. price for penny/nickel option series symbols is $9,999.95. - Max. price for nickel/dime option series symbols is $9,999.90. Special rules for Cabinet orders: - Max. price for Penny Program and penny/nickel option series symbols is $0.00999999. - Max. price for nickel/dime option series symbols is $0.01. The maximum Limit price for a Complex Order is $214,748.36	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
14	**Price, LastPx Formats on Gateway Messages & Pillar Market Data Price Scale** *#Gateways* *#MarketData*	In Pillar Gateway, all price fields are formatted with 8 decimals. In Pillar Market Data, series index mapping message supports two price scale codes - Price Scale Code and Price Scale Code Cabinet. Cabinet orders use Price Scale Code Cabinet (value 8) for price conversion, other orders use Price Scale Code (value 4).	Standard Pillar	Standard Pillar
15	**Symbol Identification** *#Gateways* *#MarketData*	All Series index numbers are unique for a year after expiration. <u>Single Leg Options:</u> Index numbers for option series remain the same until the series expires. Series that trade on both NYSE Arca and NYSE American have the same index numbers on both Pillar platforms. <u>Complex Options:</u> Index numbers are assigned by the matching engine intraday. The index number remains the same until the series expires or all GTC orders have been executed or cancelled. Complex series that trade on both NYSE Arca and NYSE American can have different index numbers on the Pillar platforms. <u>FLEX Options:</u> Index numbers are assigned by the matching engine intraday. The index number remains the same until the series expires or 10 days after it last traded, whichever is first. FLEX series that trade on both NYSE Arca and NYSE American can have different index numbers on the Pillar platforms. Index numbers for Complex and FLEX series are deleted during specific failures. Following a failure where a series is deleted, new index numbers will be assigned as new orders or symbol requests are accepted for the previously deleted series.	Standard Pillar	Standard Pillar
16	**Start of Day Ref Data** *#Gateways*	The following reference data is provided over the Pillar Binary gateway: - Firm data - Underlying Symbol data - Series data - Market Maker Appointments	Standard Pillar	Standard Pillar
17	**Market Maker Symbol Appointments** *#General* *#MarketMaker*	Market Maker symbol appointments are provided within the Pillar Binary interface via an appointment message and a Nightly file.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
18	**Market Maker Order and Quotes** *#Gateways* *#General* *#MarketMaker* *#Orderhandling* *#Quoting*	Pillar Binary supports both orders and quotes. Pillar FIX supports orders only. The same Binary session can support both order and quote entry.	Standard Pillar	Standard Pillar
19	**Bulk Quote Support** *#Gateways* *#General* *#MarketMaker* *#Orderhandling* *#Quoting*	Maximum 20 single sided quotes supported per bulk quote message. GroupID is supported for quotes; however, it is not Exchange assigned. Market Makers assign a user-defined GroupID to create specific groups of their own choice. Quoting multiple price levels of depth is supported. Quote uniqueness is defined as the combination of session + MMID + series + side. To quote multiple price levels of depth, Market Makers may use multiple MMIDs on the same session or use the same MMID across multiple sessions. A valid price with a quantity of zero or a zero price along with zero quantity is accepted as a quote cancel and when a standing quote on the associated side exists. An R107 Too late to Cancel reject is returned when no quote exists for the side being updated.	Standard Pillar	Standard Pillar
20	**Bulk Quote Rejects/Cancels** *#Gateways* *#MarketMaker* *#Orderhandling* *#Quoting*	When a quote is rejected with a Bulk Quote Acknowledgement, any existing quote from the same session, in the same series and on the same side as the rejected quote is cancelled. An explicit acknowledgment is provided for the quote that is cancelled. When a Bulk Quote is rejected with an Application Layer Reject, quotes are not cancelled.	Standard Pillar	Standard Pillar
21	**CustomerOrFirm/MMID Validation on Orders** *#Gateways* *#MarketMaker*	The SenderSubID/MMID field on an order must be populated if CustomerOrFirm is identified as Market Maker or Away Market Maker and rejected if populated for any other CustomerOrFirm value. In the case of CustomerOrFirm = Market Maker, Pillar also checks that the specified value is a valid local MMID. The MMID and MPID of the order can be for different CRD numbers.	Standard Pillar	Standard Pillar
22	**Away Market Maker Identification** *#Gateways* *#MarketMaker*	Local market makers are identified with a CustomerOrFirm value of 3 in Pillar FIX and 4 in Pillar Binary along with a valid exchange assigned MMID. Away market makers are identified with a CustomerOrFirm value of 4 in Pillar FIX and 5 in Pillar Binary along with user defined MMID.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
23	**Order Identifiers** *#Gateways* *#MarketData*	Orders and Quotes (using message Type 259) are identified on outgoing messages with OrderID, an unsigned 64-bit value (Exchange defined ID). This 64-bit value matches what is published in Pillar proprietary market data products, in the OrderID field. ~~Quotes re not assigned an ID.~~	Standard Pillar	Standard Pillar
24	**Working Price on Acks** *#Gateways* *#OrderHandling*	Acks have two price fields in addition to Limit price: - Working Price - WorkingAwayFromDisplay field Working price is the price at which an order or quote is eligible to trade at any given time, which may be different from the Limit price or display price of the order. Display price is the price at which an order or quote is displayed, which may be different from the Limit price or working price. A Market order that arrives when continuous trading is not in effect returns 0 in the WorkingPrice field. A Market order that arrives during continuous trading returns a Trading Collar value in the WorkingPrice field. Complex Orders always provide the Limit price as the Working Price and WorkingAwayFromDisplay with a value of 0. Pillar FIX Complex Orders are returned with the sign as published to Pillar Complex Market Data. Acks for repricing orders and quotes don't provide display price (display price can be derived by the two fields listed above: Working Price and WorkingAwayFromDisplay). If WorkingAwayFromDisplay field is set to 1, then the display price of the order is 1 MPV less aggressive than the working price. Repricing ack (Order Priority Update Acknowledgment) is sent when working or display price of Limit Non-Routable or ALO/DAY ISO ALO order changes - 'WorkingPrice' and 'WorkingAwayFromDisplay' fields are provided - Display price may be derived by the firm from these two fields (as described above) The quantity fields on repricing ack: - Pillar FIX provides leaves quantity in OrderQty field, LeavesQty is set to 0	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- Pillar Binary provides leaves quantity in OrderQty field		
25	**ExecID and ExecRefID** *#Gateways* *#MarketData*	<u>Pillar FIX:</u> - **ExecID** - this tag/field is populated on all MsgType = 8 messages, with a string of up to 32 characters (alphanumeric), which is globally unique. - **ExecRefID** - this tag/field is populated on trade busts/corrections and refers to the ExecID of the specific execution report that is being busted/corrected, with a string of up to 32 characters (alphanumeric). <u>Pillar Binary:</u> - **ExecID** and **ExecRefID** are not supported. Instead, each response message has its own SeqMsgID, which is globally unique and is referred back to on trade busts/corrections.	Standard Pillar	Standard Pillar
26	**Trade Identifiers** *#Gateways* *#MarketData*	Executions receive a DealID, which is an un-bundled identifier unique to each pair of orders that execute. DealID is made up of the following concatenated values, together forming an unsigned 64 bit value: GTCIndicator + SystemID + MarketID + TradeID The TradeID portion of this value matches what is published in Pillar market data products, in the TradeID field. Pillar FIX: For corrections, a new Deal ID is assigned, and the original Deal ID is provided in a separate field. The original Deal ID is the link to the Trade ID reported to OCC. Pillar Binary: For corrections, a new Deal ID is assigned and RefSeqMsgID provides a link back to the original transaction. Pillar Drop Copy: For corrections and messages sent out over Drop Copy as a result of post trade changes made in TOP (Trade Operations Portal), a new Deal ID is assigned, and the original Deal ID is provided in a separate field. The original Deal ID is the link to the Trade ID reported to OCC.	Standard Pillar	Standard Pillar
27	**Contra Fields for Fills** *#Gateways*	Contra fields are provided over both order and drop copy sessions. The following fields are provided: - ContraMPID - ContraCMTA - ContraCustomerFirm - ContraClearingFirm	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- ContraOpenClose - ContraMMID - ContraCrossType		
28	**Text on Outgoing messages** *#Gateways*	A numeric reason code along with descriptive text is provided on outgoing messages in Pillar FIX and a reason code on Pillar Binary. The full List of reason codes can be found in Appendix B of the NYSE Pillar FIX Gateway specifications and Appendix B of the NYSE Pillar Binary Gateway specifications.	Standard Pillar	Standard Pillar
29	**Filters for Drop Copy messages** *#Gateways*	Filters available for drop copy: - SenderCompID - MMID - MPID - Clearing Number (Available to Clearing firms only) Order Activity Filters – to receive drop copies of outbound messages for either: - All order activity – all Execution Reports (MsgType = 8) regardless of OrdStatus, and all Order Cancel Rejects (MsgType = 9). - Fills and Partial Fills only – only Execution Reports (MsgType = 8) with OrdStatus = 1 (Partially Filled) and 2 (Filled). For Market Maker Quotes, only Fills and Partial Fills are available via drop copy, regardless of the filter selected. Drop Copy of Floor Broker activity is available.	Standard Pillar	Standard Pillar
30	**Gateway Failure Recovery** *#Gateways* *#OrderHandling*	Each session is configured with two pairs of destination Pillar IP addresses, all sharing the same port number. Two IPs correspond to the Pillar Primary Production environment and the other two IPs to the DR Production environment, which become active only if the Primary is unavailable. Within the active production environment, the pair of IP addresses is synchronized to the same session data at all times. - In the event that one IP destination becomes unavailable, the firm may log in (FIX) or request write access to the streams (Binary) on the second IP destination. - During the failover, cancel on disconnect is triggered based on the Cancel on Disconnect configuration for the session. Because the two IP destinations are synchronized at all times, message state and sequence numbers are preserved, and gap fill can occur on the second IP destination.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- For more details, see the "Failure Recovery" section of the Pillar Gateway FIX or Binary Protocol Specifications.		

31	**Inbound Message Throttling**
	
	#Gateways
	#OrderHandling
		Inbound messages are throttled on a per-session basis at a rate of 500 messages/100 rolling milliseconds.
		
		Bulk Quote messages count as a single message towards the throttle, regardless of the number of quotes included.
		
		Risk Limit Update Request message is weighted such that it counts toward the throttle calculation as follows:
		- Bulk update to Activity-based Rolling Transaction/Volume/Percentage limit across all underlying symbols (SymbolID field null) - counts as 5,000 messages, or a maximum of one per second. The session that entered the request is throttled for one second for all subsequent messages.
		- All other Risk Limit Update Requests - each request counts as 50 messages, or a maximum of 10 per 100 milliseconds.
		
		Outbound Acknowledgments indicate when the corresponding inbound Order, Cancel/Replace Request, Modify Request, Cancel Request, or Bulk Cancel Request was throttled – Binary BitfieldFlowIndicator field; FIX tag FlowIndicator (20005).
		
		NYSE Pillar Binary Gateway sessions have an option to specify in the "Login" request message to reject new inbound Orders/Quotes when throttled, instead of the default behavior to queue the messages until they can be processed.
		- New order messages are rejected <78 – Throttle Reject >
		- Cancel, Modify and Bulk Cancel messages are processed as if queued.
		- Cancel portions of Cancel Replace messages are processed as if queued. The Exchange sends the following response messages:
		  ○ UROUT for the cancelled order with BitfieldFlowIndicator, "Throttled" bit set to '1' (Inbound Message was Throttled).
		  ○ Cancel/Replace Reject with <78 – Throttle Reject>.
		  ○ New Bulk Quotes are treated as cancel/replaces. A Bulk Quote Ack is sent with <78 – Throttle Reject>, and the same side quote(s) from the same session is cancelled with UROUTs for each cancelled quote.
		- For more details, see the "Pillar Stream Protocol Specification" and the "Message Throttling" section of the "NYSE Pillar Gateway Binary Protocol Specification."
			Standard Pillar	Standard Pillar

32	**Denial of Service Restrictions** *#Gateways*	Pillar maintains a running counter of log in attempts and session level rejects on a per SenderCompID/Target IP address basis over the course of a	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#OrderHandling	trading day. If either of the counters reaches 100, the SenderCompID/Target IP goes into Denial of Service Mode. Upon entering this mode Pillar: - Reset counters for the SenderCompID/Target IP to zero - Cancel orders based on customer cancel on disconnect settings for the SenderCompID - Disconnect the SenderCompID and refuse connection attempts to that specific TargetIP for 60 seconds		
33	**Cancel on Disconnect** *#Gateways* *#OrderHandling*	If enabled, cancellation criteria can be either of the options below. This setting must be made as part of the logon message: - Value of 1 - Cancel all orders except At the Opening (OPG), GTX, IOC, and GTC. - Value of 2 - Cancel all orders except IOC and GTC. - **Note:** For both, IOC exclusion covers all Cross orders - CUBE, QCC, Customer-to-Customer. UROUTs are provided for resting orders and quotes when connection is re-established.	Standard Pillar	Standard Pillar
34	**Underlying Opening Triggers** *#Auctions*	Opening for any single leg series begins after 9:30 am, as soon as a 2-sided Underlying Primary Market Quote and Underlying Primary Market Last Sale (regardless of size), have been received and the last sale price is at/within the bid and offer.	Standard Pillar	Standard Pillar
35	**Market Maker Quote Dependency for Opening/Reopening** *#Auctions* *#MarketMaker* *#Quoting*	Once the underlying has opened, Pillar launches the series opening/reopening process by setting a 5-second timer and waits for Market Maker Quotes. - If there is only one Market Maker assigned to a series, and no quote has been provided by the end of the timer, the series opens if there is a legal width NBBO. - If there are two or more Market Makers assigned to a series, Pillar waits for at least two quotes, either from the same Market Maker or from different Market Makers. If two Market Maker Quotes have not been provided by the end of the timer, Pillar waits an additional 5 seconds for at least one Market Maker Quote. At the end of this time period, if no Market Maker Quote has been provided, the series opens if there is a legal width NBBO. **Market Data** - While the Exchange is waiting for a Quote to open, the AuctionStatus field in the Options imbalance message (msg type 305) displays a status of “5” indicating that Auction cannot be run because the necessary Market Maker Quotes have not been received.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
36	**Legal Width for Auction Collars** *#Auctions*	Even if there is no crossing interest, Pillar waits up to 15 seconds after the underlying has opened for a "legal width" NBBO bid-ask differential. For the last 5 seconds of this preconfigured time, the required legal-width NBBO bid-ask differential is doubled. After the preconfigured 15 seconds, the series can open without a legal width NBBO bid-ask differential, regardless of whether or not there is crossing interest. In this case, any Market Orders and Limit orders marketable at the Indicative Match Price are cancelled first. Series can open when the NBBO is locked, but not when the NBBO is crossed.	Standard Pillar	Standard Pillar
37	**Auction Imbalance Publication Triggers, Times and Intervals** *#Auctions* *#MarketData*	<u>Core Opening Auction:</u> - Imbalance publication begins 90 minutes before Core Opening Auction. If there is no crossing interest, an initial imbalance message with zero Indicative Price, Paired quantity and unpaired quantity is published. - Imbalance message updates are disseminated every 5 seconds. - Imbalances are published until the series opens. <u>Reopening Auction:</u> - Imbalance publication begins immediately with trading halt. - Imbalance message updates are disseminated every 5 seconds. - Imbalances are published until the series reopens. If the halt occurs prior to the initial opening of the series, Pillar stops publication of Opening Imbalances and starts publication of Halt Imbalances. As soon as the series is no longer halted, Pillar resumes with publication of Opening Imbalances until the series opens.	Standard Pillar	Standard Pillar
38	**Auction Freeze Processing** *#Auctions* *#Gateways* *#OrderHandling*	The series is frozen to facilitate the opening/reopening. During this time new orders, as well as cancels, modifications and cancel/replaces for orders that arrived prior to the freeze, are queued and immediately acknowledged with a Pending Auction reason code. The queued orders, cancels, modifications or cancel/replaces are processed following the opening/reopening. Cancels, modifications and cancel/replaces that are against orders within the queue are immediately processed.	Standard Pillar	Standard Pillar
39	**Market Order Handling while Auction Price Calculation** *#Auctions*	For calculating Auction Indicative Price, Market orders are included at a price derived by Limit orders participating in the auction. If there are no Limit orders in the auction, Market orders are represented at the midpoint of the legal width quote.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#Gateways *#OrderHandling*	Unmatched Market orders do not affect the Indicative Match Price.		
40	**Order Behavior during Preopen** *#Auctions* *#MarketData* *#OrderHandling* *#Quoting*	Prior to the opening, ~~Market Maker Quotes are displayed on Pillar Top Market Data, but not Orders (on either Pillar Top or Complex Market Data).~~ ~~B~~both Market Maker Quotes and Orders are displayed on Pillar Deep Market Data, at their Limit price. Any non-auction eligible orders (e.g., AON) are held in a non-live state to be ranked after the opening. Quotes and orders entered during the preopen are not displayed on Pillar Top or Complex Market Data.	Standard Pillar	Standard Pillar
41	**Order Behavior during Halt** *#Auctions* *#MarketData* *#OrderHandling* *#Quoting*	Collared orders are cancelled upon halt. New orders are accepted during halt. Quotes are cancelled upon halt. Resting Limit orders which were not collared prior to halt are re-priced to their Limit price at the time of the halt. The re-pricing is reflected on Pillar Deep Market Data. ~~Quotes entered during the halt are displayed on Pillar Top Market Data. Orders entered during the halt are not displayed on Pillar Top or Complex Market Data.~~ Quotes and orders entered during the halt are displayed on Pillar Deep Market Data at their Limit price. Quotes and orders entered during the halt are not displayed on Pillar Top or Complex Market Data. Any non-auction eligible orders (e.g., AON) are held in a non-live state to be ranked after the reopening.	Standard Pillar	Standard Pillar
42	**Order Handling after Opening** *#Auctions* *#OrderHandling*	When a series opens, any unexecuted non-routable interest is cancelled when locking or crossing away BBO irrespective of the instructions on the order. This includes ALO orders, non-routable Limit orders, and AON orders.	Standard Pillar	Standard Pillar
43	**Imbalances Calculation - General** *#Auctions* *#MarketData*	If legal width NBBO does not exist to establish the opening/reopening auctions collars for the Imbalance calculation, an un-collared Indicative Price is calculated, and imbalance published at that price.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
44	**Imbalances - Interest Included in Calculations of Imbalance and Paired Quantities** *#Auctions* *#MarketData*	All interest eligible to participate in the auction is included in calculations except Imbalance Offset (IO) orders. IO orders participate in auction if there is an imbalance on the opposite side of the market from the IO Order after considering all other orders eligible to trade at the Indicative Match Price.	Standard Pillar	Standard Pillar
45	**Price Fields on Imbalance Message** *#Auctions* *#MarketData*	The following price fields are included on the Imbalance message: Indicative Match Price: Indicative Match Price is provided under 'Indicative Match Price' field. Continuous Book Clearing Price: The price where all eligible interest on the Book can trade, disregarding auction collars. The orders are included in the calculations at their Limit price. Auction Interest Clearing Price: The price where all eligible auction only interest would trade inside the Auction Collars. Auction Status: Indicates whether the opening or reopening preconditions have been satisfied for the auction to run. Auction Collars: Upper Collar and Lower Collar fields are populated with the legal width bid and offer which establish the opening/reopening auctions collars.	Standard Pillar	Standard Pillar
46	**Imbalance Calculation - Market Imbalance Quantity** *#Auctions* *#MarketData*	Market Imbalance is the quantity of any remaining Market orders that are not matched for execution in the auction.	Standard Pillar	Standard Pillar
47	**Auction Print Reporting to OPRA and Pillar** *#Auctions* *#MarketData*	All auction prints are reported to OPRA and Pillar Top Market Data & Pillar Deep Market Data individually. Pillar Top Market Data identifies both the individual trade condition as well as if the trade was part of the opening or reopening auction. Pillar Deep Market Data provides a consolidated Cross Trade Message identifying the bulk volume that traded in the opening or reopening auction. For individually reported auction trades on Pillar Deep Market Data,	Standard Pillar	Standard Pillar

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		'PrintableFlag' is set to 0 to avoid double counting of the volume executed in the auction.		

48	**Trading Collars**
	
	#General
	#OrderHandling
		Market orders and aggressively priced Limit orders are collared based on the following Trading Collars Reference Price:
		- Trading Collars Reference Price is the contra side NBBO for orders that arrive during continuous trading
		- Trading Collars Reference Price during the opening and during the halt is:
		  ○ Auction price. If none:
		  ○ Auction collar price (upper collar for Buy orders, lower collar for Sell orders). If none:
		  ○ Contra side NBBO
		
		Trading Collar is calculated as the percentage/dollar value off the Reference price.
		
		If there is no Trading Collars Reference Price, Limit orders are not collared (Market Order behavior is described below).
		
		An order trades/routes up to the Trading Collar. Once it hits the price of a Trading Collar:
		- Market order is cancelled
		- Limit order is placed on the Book at that price for 500 milliseconds, after which it is cancelled
		Collars are recalculated only after the trading halt.
		
		Trading Collar settings are as follows based on the Trading Collars Reference Price:
		$0 - $1.00 - $0.20
		$1.01 - $2.00 - Lesser of $0.20 or 25% of the Reference Price
		$2.01 - $3.00 - Lesser of $0.30 or 25% of the Reference Price
		$3.01 - $5.00 - Lesser of $0.30 or 25% of the Reference Price
		$5.01 - $7.50 - Lesser of $0.40 or 25% of the Reference Price
		$7.51 - $10.00 - Lesser of $0.40 or 25% of the Reference Price
		$10.01 - $20.00 - Lesser of $0.70 or 25% of the Reference Price
		$20.01 - $50.00 - Lesser of $0.90 or 25% of the Reference Price
		$50.01 - $100.00 - Lesser of $1.40 or 25% of the Reference Price
		$100.01 and above - Lesser of $1.90 or 25% of the Reference Price
			Standard Pillar	Standard Pillar

49	**Supported Single Leg Order Types** *#OrderHandling*	Order types supported by Pillar: Market Orders: - Market DAY	The following order types are not supported: - Limit GTX - CUBE - AON CUBE	The following order types are not supported: - Limit DAY ALO - Limit DAY ISO ALO - Limit Reserve ALO

	Standard Pillar	NYSE Arca Options	NYSE American Options
	Limit Orders - Limit DAY - Limit GTC - Limit IOC Routable Non-Routable orders - Limit DAY Non-Routable (Option to Cancel or Reprice) - Limit GTC Non-Routable (Option to Cancel or Reprice) - Limit IOC ALO orders - Limit DAY ALO (Option to Cancel or Reprice) Reserve Orders - Limit Reserve DAY - Limit Reserve DAY Non-routable (Option to Cancel or Reprice) - Limit Reserve GTC - Limit Reserve GTC Non-routable (Option to Cancel or Reprice) - Limit Reserve ALO (Option to Cancel or Reprice) Intermarket Sweep Orders - Limit IOC ISO - Limit DAY ISO - Limit DAY ISO ALO (Option to Cancel or Reprice) All or None Orders - Limit DAY AON* - Limit GTC AON* Fill or Kill - Limit FOK* Stop Orders - Stop DAY - Stop Limit DAY - Stop GTC - Stop Limit GTC		

		Standard Pillar	NYSE Arca Options	NYSE American Options
		Opening Only - MOO - LOO - Imbalance Offset Auction Response Only orders - Limit GTX Cross Orders - QCC - Customer-to-Customer - CUBE - AON CUBE * This order type is currently not supported. Activation of this order type will be announced via trader update. For more information, refer to Order Attribute Matrices: [Pillar Options FIX Order Validation Matrix] [Pillar Options Binary Order Validation Matrix]		
50	**Support Market Maker Quote Types** *#MarketMaker* *#Quoting*	The following Quote types are supported in Pillar. - Standard Quote (follows non-routable limit orders) - Re-pricing Quote (follows non-routable limit orders) - ALO Quote - ALO Re-pricing Quote	Standard Pillar	The following Quote types are not supported: - ALO Quote - ALO Re-pricing Quote
51	**Market Orders** *#OrderHandling*	Market order is rejected: - When there is no NBO (both Buy and Sell are rejected/cancelled). - When NBBO is too wide (greater than or equal to the catastrophic error bands) - If there are no quotes (local or away) on the contra side of the order (this validation does not apply to Sell Market orders that are accepted in a 'no bid' market as specified below). - When there is no NBB: ○ If NBO is > $0.50, Sell Market order is rejected (cancelled) ○ If NBO is <= $0.50, Sell Market order is accepted and displayed @ 1 MPV (no timer). If accepted, an order executes/routes up to the Trading Collar, after which, the residual of the order is cancelled.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
52	**GTC Orders** *#OrderHandling*	ClOrdID does not require the current date. The value is customer defined up to 20 characters; only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, “at” symbol, greater than/less than, ampersand (&) and single/double quotation mark. On GTC order load from the prior day, a restatement message is sent to the client. When a series expires, a UROUT message is sent to the client with reason R246:-Series Expired. If the MPID or MMID is removed, the GTC order is rejected back to the originating session upon loading from the prior day. If the series has changed from the Penny Program to penny/nickel or nickel/dime and the GTC order price is not in a nickel or dime increment, the GTC order is rejected back to the originating session upon loading from the prior day. Trading Collars and Limit Order Price protection is calculated on each trading day a GTC is live. During corporate action, affected GTC orders are rejected back to the originating session upon loading from the prior day. - Orders removed due to a corporate action have reason code R262: Cancelled - Corporate Action - Orders removed due to the series being removed have reason code R020: Invalid Series Unexecuted GTC orders may be cancelled during failure scenarios. Clients are notified on a best effort basis.	Standard Pillar	Standard Pillar
53	**Add Liquidity Only (ALO) Orders** *#Auctions* *#OrderHandling*	ALO orders can participate in opening/reopening auctions. Arriving ALO orders are accepted before the opening and during the trading halt. Resting ALO orders are not cancelled at the time of a trading halt. ALO orders participate in the auctions at their Limit price. If an ALO order with an option to cancel would trade or route on arrival, the order is accepted, an order acknowledgment sent and then the order is cancelled. ALO that can reprice is not rejected regardless of how far its Limit price is from the initial display price. It is repriced on arrival if necessary (see the logic below), and once resting on the Book, its display price can be adjusted one additional time. After that the order either remains there or cancelled	Standard Pillar	N/A

		Standard Pillar	NYSE Arca Options	NYSE American Options
		back (based on the customer's choice) if the conditions change in such a way that the order can be repriced. ALO repricing quotes do not have the option to cancel. When locking or crossing local interest or an away BBO, ALO that can reprice, behaves as follows (the sequence of validation is implied): - Displayed interest - ALO order displays and works 1 MPV less aggressive than the locking/crossing displayed interest. - An away quote - ALO order displays 1 MPV less aggressive than the away quote and works at the price of the away quote. - Non-displayed interest - ALO order works and displays at the price of the locking/crossing non-displayed interest. When locking or crossing local interest or an away BBO, ALO that cancels instead of repricing, cancels except for the following: - If it locks non-displayed interest, it does not cancel, since it doesn't need to reprice. It just works and displays at the price of the locking non-displayed interest.		
54	**Non-Routable Limit Orders** *#OrderHandling*	Non-Routable Limit order that reprice are not rejected regardless of how far its Limit price is from the initial display price. It is repriced on arrival if necessary, and once resting on the Book the display price can be adjusted one additional time. After the max reprices is reached, the order either remains displayed or cancelled back (based on the customer's choice) if the conditions change that cause another reprice. Repricing quotes do not have the option to cancel. If a Non-Routable Limit order with an option to cancel would route to an away market on arrival, the order is accepted, an order acknowledgment sent and then the order is cancelled.	Standard Pillar	Standard Pillar
55	**New Order Modifiers - Cancel Instead of Reprice** *#Gateways* *#OrderHandling*	When CancelInsteadOfReprice is set to 3, an order is cancelled instead of repricing (ALO/ DAY ISO ALO orders cancel if it needs to reprice for any local interest or an away quote. Limit Non-Routable orders cancel if it needs to reprice for an away quote). When CancelInsteadOfReprice is set to 4, an order can reprice on arrival if necessary, and once resting on the Book, its display price can be adjusted one additional time. After that, the order is cancelled back if the conditions change in such a way that the order can be repriced. The modifier is available to Limit Non-Routable orders (including Reserve), ALO (including Reserve) and DAY ISO ALO.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
56	**Order Handling when Order's Working Price is Different from Display Price** *#OrderHandling*	Limit Non-Routable and ALO orders: - When the working price is adjusted to be the same as the displayed price (while display price isn't changing), an order retains priority at the display price. - When the away market requotes and is 1 MPV less aggressive than the display price of the order (while order's display and working prices are the same), the working price of the order is not adjusted to lock the away market. The working price is only adjusted if the display price needs to be adjusted.	Standard Pillar	Standard Pillar
57	**Reserve Orders** *#OrderHandling*	Publish quantity must be greater than 0. Publish quantity is replenished when it becomes 0 contracts. Only the displayed portion of a Reserve order stands its ground when locked or crossed by an away quote. The reserve portion of the Reserve order is always dark and continuously reprices if it gets locked or crossed by the away BBO. As the away quote updates, the reserve portion reprices up to the price of a displayed portion. This applies to Limit Reserve, Limit Reserve ALO, and Limit Non-Routable Reserve.	Standard Pillar	Standard Pillar
58	**Stop and Stop Limit Orders** *#OrderHandling*	Buy (Sell) Stop Limit order is rejected if its Stop price is higher than (lower than) its Limit price (reject reason '**R027**: Invalid StopPx'). Stop and Stop Limit orders are elected by an update in last sale from any market center or an exchange BBO update. Stop orders are not elected when the underlying is in Limit State/Straddle State. When Limit State/Straddle State is lifted, Stop orders are evaluated for election on the existing exchange BBO. Stop orders are not evaluated on the existing last sale. When elected on exchange BBO, Pillar publishes the quote that caused the election and every consecutive quote that may result in processing elected orders. Elected orders follow standard Pillar behavior for cancel/replaces: - If the order's quantity is reduced (via Modify message in Pillar Binary or via Cancel/Replace message in Pillar FIX), the order keeps its standing and its elected status. - Otherwise, if anything else is changing on the order, cancel/replace is treated as full cancel/replace (the original order is cancelled, the new	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		one, with new OrderID, is entered). If elected Stop/Stop Limit order is replaced with another Stop/Stop Limit, the replacement is unelected.		
59	**New Order Modifiers - Proactive If Locked (for routable orders)** *#Gateways* *#OrderHandling*	When ProactiveIfLocked = 1, a resting order proactively routes to the away market if it gets locked/crossed by an away market. The modifier is available to Limit orders (including Reserve) and elected Stop Limit orders.	Standard Pillar	Standard Pillar
60	**AON (All or None) Orders** *#OrderHandling*	AON Orders execute against incoming interest if the incoming interest can fully satisfy the order, unless a resting AON Order is locked by displayed interest or crossed by displayed or non-displayed interest. Resting AON orders are evaluated for execution opportunity every time a state of Book changes. AON orders are subject to Trading Collars. * This order type is currently not supported. Activation of this order type will be announced via trader update.	Standard Pillar*	Standard Pillar*
61	**New Order Modifiers - Minimum Trade Size and Minimum Fill** *#Gateways* *#OrderHandling*	Minimum Trade Size (MinQty) can be entered on the following order type, with or without an optional "Minimum Fill" instruction (RoutingInst = 8). - Limit IOC Minimum Trade Size can be less than or equal to the order quantity. On arrival, an order with MinQty and "Minimum Fill" instruction trades only against individual resting contra side orders that each satisfy the MinQty. On arrival, an order with MinQty that does not have this modifier trades with contra side orders that in aggregate or individually satisfy the MinQty. * These modifiers are currently not supported. Activation of these modifiers will be announced via trader update.	Standard Pillar*	Standard Pillar*
62	**Self-Trade Prevention (STP)** *#General* *#OrderHandling* *#Quoting*	STP is supported for all clients. STP may be enforced between orders and quotes using one of two alternative firm identifiers: - MPID + optional SubID - ClientID - an identifier registered with the Exchange to represent a business unit within the same or affiliated firm, or for routing to the exchange through another member. For setup details, see the Self-Trade Prevention section of NYSE Pillar FIX Gateway Specification or NYSE Pillar Binary Gateway Specification	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		Two orders/quotes with STP Type designation (see below) and a matching firm identifier is prevented from trading. The above identifiers are mutually exclusive; an order/quote with a ClientID always is allowed to trade with an order/quote that does not have a ClientID, even from the same MPID. STP is supported for complex-to-complex transactions; however complex to legs self-trade is not supported. STP is not enforced for the following transactions: - Opening/Reopening Auctions - QCC and Customer-to-Customer crosses - CUBE Auctions		
63	**Partially Routed Order with Quantity Returned Unexecuted from Away Market** *#MarketData* *#OrderHandling*	The returned quantity from an away market is added to any resting quantity, and the order keeps its most recent ranking on the Book. The order also keeps its original OrderID. A Modify message is sent to Pillar Deep Market Data when the resting quantity of an order is increased by returned unexecuted quantity from the away market.	Standard Pillar	Standard Pillar
64	**Cancel and Cancel-Replace Handling** *#Gateways* *#OrderHandling* *#Quoting*	To reduce the OrderQty on an open order, the Modify Request message is used in Pillar Binary, and the Cancel/Replace Request message is used in Pillar FIX. The order maintains its ranking and existing OrderID. For reserve orders, reserve quantity is reduced before being applied to the publish quantity. For changes other than those listed above, Cancel-Replace gets a new ranking and new OrderID. A Modify or Cancel/Replace Request to reduce quantity with a specified OrderQty less than the executed quantity of that order – results in a “Replaced” response with LeavesQty = 0. A Cancel, Modify, or Cancel/Replace Request only receives a pending message if it cannot be applied right away due to market conditions (E.g.: Opening auction running, or interest routed away). Pending Cancel/Replace and Pending Modify Acknowledgments are distinguished from each other with separate values: Pending Replace and Pending Modify. Reducing quantity for a quote is treated as a modify and the ranking on the Book is maintained. Any other change results in a new ranking on the Book.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		A Modify or Cancel/Replace Request to change the quantity of an order in a pending state when the request comes in and is fully executed or cancelled before the quantity change can be applied – results in a Pending Cancel Ack followed by a Cancel Reject message. If a Cancel Request or Cancel-Replace Request is rejected, the OrdStatus on the Cancel/Cancel-Replace Reject message is always set to "Rejected". If the Cancel-replace Request gets rejected by the matching engine specifically due to market conditions, the original order is cancelled from the Book.		
65	**Pending Cancel Acknowledgments** *#Gateways* *#OrderHandling*	An order can receive multiple pending Acks indicating the current state of the order in the following scenarios: Cancel or cancel/replace of an order during a Trading Session transition, and the order routes to an away market immediately after the transition. Cancel or cancel/replace of an order while an auction is running, and the order routes to an away market immediately after the auction. Pending Cancel Acks for Cancel/Replace are sent with the attributes of the new (replacement) order.	Standard Pillar	Standard Pillar
66	**Bulk Cancel** *#Gateways* *#MarketMaker* *#RiskControls*	Bulk cancel via a Pillar FIX or a Pillar Binary non-market maker session cancels orders with the following CustomerOrFirm values: Customer, Firm, Broker, Away Market Maker, and Professional Customer only. Bulk cancel of orders and quotes can be combined by the same request for Market Maker sessions.	Standard Pillar	Standard Pillar
67	**Bulk Cancel Order Exclusions** *#Gateways* *#RiskControls*	Pillar excludes the following order types: - GTC orders - IOC orders including cross orders	Standard Pillar	Standard Pillar
68	**Bulk Cancel Filters for Non-Market Maker Sessions** *#Gateways* *#RiskControls*	Bulk cancel via a Pillar FIX or a Pillar Binary non-market maker session supports the filters listed below. All criteria may be combined. - Target MPID - SubID - Session (must be same as the session sending the Bulk Cancel Request) - Underlying Symbol - Options series (Binary Only)	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- Side		
69	**Bulk Cancel Processing for Non-Market Maker Sessions** *#Gateways* *#RiskControls*	Pillar sends an acknowledgment that the bulk cancel was accepted, and the orders cannot be executed, followed by UROUTs for each order. For Bulk Cancel, no individual pending cancel messages are sent for routed orders. Cancels sent from non-market maker sessions do not cancel orders or quotes designated with CustomerOrFirm = Market Maker.	Standard Pillar	Standard Pillar
70	**Bulk Cancel Filters for Market Maker Sessions** *#Gateways* *#MarketMaker* *#RiskControls*	Pillar Bulk Cancel message supports the filters listed below. All criteria may be combined. - Target MPID - Session (must be same as the session sending the Bulk Cancel Request) - Underlying Symbol - Options series (Binary Only) - Side Additionally, for MMs (Binary only): - MMID - User-defined GroupID - Orders/Quotes/Both	Standard Pillar	Standard Pillar
71	**Bulk Cancel User Defined Group** *#Gateways* *#MarketMaker* *#Quoting* *#RiskControls*	Pillar supports a GroupID that allows Market Makers to provide a user defined value on Bulk Quotes. The specified GroupID is applied to all quotes packaged in the Bulk Quote. This GroupID may be specified for a given underlying symbol or across multiple underlying symbols allowing the Market Maker to define their groups according to how they choose to manage quotes. The Bulk Cancel filter for GroupID is designed to cancel all quotes that have the designated GroupID specified, providing that all other filters for the bulk cancel match.	Standard Pillar	Standard Pillar
72	**Bulk Cancel Processing for Market Maker Sessions** *#Gateways* *#MarketMaker* *#RiskControls*	Pillar sends an acknowledgment that the bulk cancel was accepted, and orders/quotes cannot be executed followed by UROUTs for each order. Quotes are not issued UROUTs following a bulk cancel request. Bulk Cancels from Market Maker sessions have an option to Cancel and Block new quote and/or order entry. Entry of quotes/orders are allowed following an Unblock request. Following criterion are supported for Cancel and Block, and Unblock actions:	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- MPID - MMID - Underlying symbol - GroupID Any Market Maker session can be reserved to facilitate Bulk cancels.		
73	**Options Proprietary Market Data Channelization** *#MarketData*	- Pillar Deep Market Data : TXN-based channelization - Pillar Top Market Data (BBO/RFQ): TXN-based channelization - Pillar Top Market Data (Trade/RFQ): TXN-based channelization - Pillar Top Market Data (Summary): Single channel for all TXNs - Pillar Top Market Data (Imbalance/RFQ): Single channel for all TXNs - Pillar Complex Market Data: TXN-based channelization	Standard Pillar	Standard Pillar
74	**Sequence Numbers** *#MarketData*	All the messages for a TXN is sent over a channel and each message in a given channel is assigned a unique sequence number. Sequence numbers increase monotonically per channel and can be used to detect publication gaps.	Standard Pillar	Standard Pillar
75	**Gapfill or Refresh Recovery** *#MarketData*	Pillar supports client request based gapfill or refresh functionality.	Standard Pillar	Standard Pillar
76	**Test Request Message** *#MarketData*	Regular heartbeats are provided on Pillar Market Data.	Standard Pillar	Standard Pillar
77	**Series Index Mapping Service** *#MarketData*	Pillar supports a symbol index refresh request.	Standard Pillar	Standard Pillar
78	**Symbol/Series Mapping File** *#MarketData*	Pillar Market Data file made available at 11.00 pm ET for the next trading day.	Standard Pillar	Standard Pillar
79	**Deep Market Data Message Publication** *#MarketData*	The Pillar Deep Market Data provides a comprehensive order-by-order view of events for all single leg options symbols on the NYSE Options exchange. The Pillar Deep Market Data includes Add/Delete, RFQ, Imbalance, and options Status messages. See Pillar Deep Market Data for message details.	Standard Pillar	Standard Pillar
80	**Series Status in Options Status Message**	The following Security Statuses are supported: - 4 - Trading Halt	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#MarketData	- 5 - Resume - 6 - Suspend Market Session values: - P - Preopening - B - Begin Accepting orders - O - Core session - X - Closed If a series is halted on a session change, Halt Condition field is a value other than ~, and the series remains halted into the new session. If a series is not halted at the time of a session change, the Halt Condition field displays ~. When a series is changed from halt to unhalt, there are 2 Option Status messages that go out. The first Option Status message is published with "5", then the next status with "O".		
81	**Series Status Message Publication Sequence** *#MarketData*	When an underlying halts, underlying status message is published after series status messages or in between series status messages.	Standard Pillar	Standard Pillar
82	**Quote Condition** *#MarketData* *#Quoting*	The following quote conditions are supported: - 1 – Regular Trading - 3 – Trading Halted	Standard Pillar	Standard Pillar
83	**Pre-trade Risk Controls** *#RiskControls*	Pillar allows different risk limits to be set for different SubIDs under the same MPID. Each SubID must be registered with the Exchange. The following risk checks for orders are available in FIX and Binary and configurable via TOP or Pillar Binary. - Single Order Max Quantity - Single Order Max Notional Value - Order Restriction - Symbol Restriction - Configurable Limit Order Price Protection - Maximum Duplicative Orders - Gross Credit - Order Rate Threshold See Pillar Risk Controls Specification for additional details.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
84	**Activity-based Control Processing - Rolling Transaction/Volume/Percentage** *#OrderHandling* *#Quoting* *#RiskControls*	Limits are applied as follows: - Per MPID + Underlying for Order Sending Firm activity - Per MPID + MMID + Underlying for MM Order and MM Quote activity aggregated together. Firms that wish to maintain separate limits for orders and quotes may request different MMIDs intended for order entry vs. quoting. Limits are mandatory for both Market Maker Quotes and Market Maker orders (designated with CustomerOrFirm = Local Market Maker), in both appointed and non-appointed symbols. If an Underlying + MPID + MMID is not configured with an Activity-based limit, all orders/quotes with those identifiers are rejected. There are no default limits. Firms must set and maintain their own limits. This includes initial "day 1" setup and on an ongoing basis as new underlying symbols are added to the NYSE Arca and NYSE American Options markets (intraday or overnight) and/or Market Makers begin or cease trading certain symbols. A single set of min/max values apply consistently for both orders and quotes. The client configurable limits for each activity are as follows: - Transaction: Minimum 1, Maximum 2,000 - Volume: Minimum 1, Maximum 500,000 - Percentage: Minimum 50, Maximum 200,000 Rolling Risk Time Window is client configurable between 100,000 and 300,000,000 microseconds, in 1,000 microsecond increments (equivalent to 1 millisecond). Breach Action is client configurable, with choice of Cancel Non-Auction Orders & Block, Block Only, and Notifications Only. For a given limit, a single message is used to represent Cancel & Block UROUTs are provided during a breach for resting orders only. Quotes are not issued UROUTs. Breach of Rolling Transaction/Volume/Percentage are triggered when calculation > the respective limit. AON is counted toward calculation and eligible for cancellation upon breach.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		MOO and LOO are counted toward calculation but remain open upon breach. Configuration allows the firm to choose whether IOC/FOK/GTX are included in calculation & eligible for cancellation upon breach; or excluded from calculation & remain open upon breach.		
85	**Risk Control Aggregation** *#RiskControls*	The following risk checks apply in aggregate across a firm identifier. - Activity-based Global Risk Mitigation Protection (GRMP) - Kill Switch GRMP keeps an aggregate count of the number Activity Based Risk Breaches that occur in a configurable Rolling Risk Time Window. The Rolling Risk Time Window is client configurable between 100,000 and 300,000,000 microseconds, in 1,000 microsecond increments (equivalent to 1 millisecond). The limits for GRMP supported are as follows: - Breach: Minimum 25, Maximum 100 Kill Switch allows order sending firms/Market Makers to cancel orders and block/re-enable new order entry via the Risk Controls Client API or TOP.	Standard Pillar	Standard Pillar
86	**Arbitrage Check** *#RiskControls*	<u>Buy Calls</u> Rejects/cancels Buy Calls with Option Limit ≥ Underlying Primary Market Last Sale (regardless of the size) after 9:30 AM + (Arbitrage Percentage x Underlying Primary Market Last Sale after 9:30 AM). The percentage is consistent for orders and Market Maker Quotes, using underlying primary market last sale after 9:30 AM as the reference price. Underlying symbol previous day closing price is never used as a reference price. $0 - $5.00 - 100% $5.01 to $7.50 - 70% $7.51 to $10.00 - 50% $10.01 to $20.00 - 40% $20.01 to $50.00 - 20% Above $50.00 - 10% During pre-open/halt, does not apply the check. Waits until after the opening/reopening auction and applies the check for both orders and quotes before applying trading collars (regardless of opening/reopening on a trade or quote).	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		<u>Buy Puts</u> Rejects/cancels Buy Puts with Option Limit ≥ Option Strike Price. A Market Maker quote or order reject results in an automated risk Breach Action of Cancel Non-Auction Orders and Block across the MM's quotes and orders in the underlying symbol. Open quotes and orders are cancelled, and new orders and quotes rejected. UROUTs are provided during a breach for resting orders only. Quotes are not issued UROUTs. The breach counts toward the MM's GRMP limit.		
87	**Intrinsic Value Check** *#RiskControls*	Applies to orders and Market Maker Quotes. <u>Sell Calls</u> Rejects/cancels Option Limit ≤ (Underlying Primary Market Last Sale, regardless of the size, after 9:30 AM - Option Strike Price) x (100 - Intrinsic Percentage)/100. <u>Sell Puts</u> Rejects/cancels Option Limit ≤ (Option Strike Price - Underlying Primary Market Last Sale, regardless of the size, after 9:30 AM) x (100 - Intrinsic Percentage)/100. The Intrinsic Percentage is determined based on the following Intrinsic Reference Price: - Intrinsic Reference Price for orders/quotes that arrive during continuous trading is the options series NBB - Intrinsic Reference Price for orders/quotes that arrived prior to the opening and during a halt is: ○ Options series Auction Price. If none: ○ Options series Lower Auction Collar. If none: ○ Options series NBB $0 - $5.00 - 100% $5.01 to $10.00 - 50% Above $10.00 - 25% A Market Maker quote or order reject results in an automated risk Breach Action of Cancel Non-Auction Orders and Block across the MM's orders and quotes (same as Arbitrage Check reject). UROUTs are provided during a breach for resting orders only. Quotes are not issued UROUTs. The breach counts toward the MM's GRMP limit.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		During pre-open/halt, does not apply the check. Waits until after the opening/reopening auction and applies the check for both orders and quotes before applying trading collars (regardless of opening/reopening on a trade or quote).		
88	**Limit Order Price Protection - Single Leg** *#OrderHandling* *#Quoting* *#RiskControls*	Limit Order Price Protection applies to Order Sending Firm orders, Market Maker orders, and Market Maker Quotes using a consistent set of price buckets/percentages. During pre-open/halt, does not apply the check. Waits until after the opening/reopening auction and applies the check for both orders and quotes before applying trading collars (regardless of opening/reopening on a trade or quote). <u>Buy Orders/Quotes:</u> Rejects/cancels Option Limit ≥ Limit Order Price Protection Reference Price + (Limit Order Price Protection Percentage X Limit Order Price Protection Reference Price) <u>Sell Orders/Quotes:</u> Rejects/cancels Option Limit ≤ Limit Order Price Protection Reference Price - (Limit Order Price Protection Percentage X Limit Order Price Protection Reference Price) The Limit Order Price Protection limit is determined based on the following Limit Order Price Protection Reference Price: - Limit Order Price Protection Reference Price for orders/quotes that arrive during continuous trading is the contra side NBBO - Limit Order Price Protection Reference Price for orders/quotes that arrived prior to the opening and during a halt is: o Auction Price. If none: o Contra side Auction Collar. If none: o Contra side NBBO \$0 - \$1.00 - \$0.30 \$1.01 to \$10.00 - 50% \$10.01 to \$20.00 - 40% \$20.01 to \$50.00 - 30% \$50.01 to \$100.00 - 20% Above \$100.00 - 10%	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		The default limits for each Limit Order Price Protection Reference Price is client configurable, via TOP or Pillar Binary.		
89	**Customer Priority** *#General* *#MarketData*	Market Specific	Both Customer and Professional Customer is considered for Customer Priority.	Only Customer is considered for Customer Priority.
90	**Exchange Allocation** *#General*	Market Specific	Price/Time with LMM Guarantee	Pro-Rata with Customer Priority and Directed/Specialist Pool Guarantee
91	**Directed Order** *#Gateways* *#Orderhandling*	Orders can be directed to a Market Maker's Quote by identifying the Directed Market Maker's MPID in DeliverToCompID. Orders can be defaulted with a Market Maker's MPID upon request.	N/A	Standard Pillar
92	**DOMM Guarantee** *#General* *#MarketMaker*	A Directed Market Maker Quote is eligible for 40% of a Directed order after all displayed Customer interest has been satisfied when the execution price is at the NBBO. - Orders that are directed to a Primary Specialist Quote are eligible for 100% of the Directed Order after all displayed Customer interest has been satisfied when the original order quantity is 5 contracts or less. If the Directed Market Maker has more than one quote at the NBBO then all quotes are eligible for a pro-rata share of the guarantee up to the size quoted. Directed Market Maker Guarantee is not available in auction trades.	N/A	Standard Pillar
93	**LMM/Specialist Guarantee** *#General* *#MarketMaker*	Market Specific	LMM Quotes are eligible for 40% of the aggressing order or quote before all other same priced interest when the execution price is at the NBBO and there is no displayed Customer interest ahead in time. - The LMM Quote is eligible for 100% of the aggressing order or quote when the original	Specialist Quotes are eligible for 40% of the aggressing order or quote after all displayed Customer interest has been satisfied when the execution price is at the NBBO. - The Primary Specialist Quote is eligible for 100% of the aggressing order or quote after all displayed Customer

		Standard Pillar	NYSE Arca Options	NYSE American Options
			aggressing order or quote quantity is 5 contracts or less. If the LMM has more than one quote at the NBBO, only the first quote in time priority is eligible for the guarantee up to the size quoted. The LMM Guarantee is not available in auction trades.	interest when the original aggressing order or quote quantity is 5 contracts or less. If the Specialist have more than one quote at the NBBO then all quotes are eligible for a pro-rata share of the guarantee up to the size quoted. The Specialist Pool Guarantee is not available in auction trades.
94	**Non-Displayed Priority Interest** *#General*	Market Specific	After all displayed interest, non-displayed interest is executed in time priority at a price level.	After all displayed interest, non-displayed Customer interest is executed in time priority before all other non-displayed interest at a price level.
95	**Order & Market Maker Quote Ranking** *#General* *#MarketData* *#OrderHandling* *#Quoting*	Market Specific	At each price point, interest is ranked as follows: (1) Market orders; (2) Displayed Limit Orders and Market Maker Quotes; and (3) Non-displayed Limit orders and Market Maker Quotes	At each price point, interest is ranked as follows, provided that Customer interest in each of categories (1)-(3) are afforded first priority ahead of non-Customer interest in that category: (1) Market orders; (2) Displayed Limit Orders and Market Maker Quotes; and (3) Non-displayed Limit orders and Market Maker Quotes.
96	**Setter Priority** *#General*	Order acknowledgment identifies when an order is a candidate for setting or joining the NBBO. Setter Priority can be gained on arrival, when interest returns unexecuted from the away market, on re-pricing, on replenishment, or when it becomes eligible to trade for the first time upon transitioning to a new trading session. Setter priority is not used to determine eligibility for transaction fee pricing incentive programs.	Standard Pillar	Standard Pillar
97	**Supported Complex Order Types** *#Complex* *#OrderHandling*	Order types supported by Pillar: Limit Orders	The following order types are not supported: - CUBE - AON CUBE	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- Limit DAY - Limit GTC - Limit IOC Complex Only orders (formerly known as PNP+) - Limit DAY Complex Only - Limit GTC Complex Only - Limit IOC Complex Only - Limit FOK Complex Only* Complex Order Auction orders - Limit DAY COA - Limit GTC COA - Limit IOC COA - Limit DAY COA Complex Only - Limit GTC COA Complex Only - Limit IOC COA Complex Only Complex Order Auction Response Only orders - Limit GTX Cross Orders - QCC - Customer-to-Customer - CUBE - AON CUBE * This order type is currently not supported. Activation of this order type will be announced via trader update. For more information, refer to the Order Attribute Matrices: Pillar Options FIX Order Validation Matrix Pillar Options Binary Order Validation Matrix		
98	**Complex FOK Orders** *#Complex* *#OrderHandling*	Fill or Kill (FOK) order is a Limit order that is immediately executed in its entirety with any available complex interest at or inside the derived best bid and offer, as soon as the order is received. If it cannot be executed in its entirety upon receipt, it is cancelled back with reason code '**R229**: Expire FOK'. Accepted during the Core Trading session **only**; Rejected before the Open and during a Halt.	Standard Pillar*	Standard Pillar*

		Standard Pillar	NYSE Arca Options	NYSE American Options
		Only Limit FOK Complex Only order type is supported. * This order type is currently not supported. Activation of this order type will be announced via trader update.		
99	**Complex Only Orders** *#Complex* *#OrderHandling*	Complex Only orders are allowed to trade on the derived best bid or offer regardless of whether the ratio can be satisfied by the derived best bid or offer, unless Customer interest is on all the leg markets. If there is Customer interest on all the leg markets, then the Complex Only order trades up to $0.01 x the smallest leg ratio inside the side of the derived best bid or offer containing the Customer interest. Complex Only orders trade at permissible prices as outlined above, but their trading priority remains as is. The above processing also applies to all Non-standard Complex Series.	Standard Pillar	Standard Pillar
100	**Complex Series Alignment** *#Complex* *#MarketData* *#OrderHandling*	A complex series is defined from the perspective of the buyer (i.e., Buy aligned). When creating a complex series, Pillar arranges the component legs in a sequence to align incoming Complex Orders to the correct side of the market (Buy or Sell). Pillar arranges the component legs by series index number, from lowest series index number to highest series index number. After sequencing the component legs of the Complex Order or the Pillar Binary complex series request, the complex series is disseminated over Pillar Complex Market Data. Using the first component leg, if the leg is to Buy, the complex series is created and defined according to the rules above. If the first leg is to Sell, the side of all component legs are reversed and defined in Pillar Complex Market Data to the rules above.	Standard Pillar	Standard Pillar
101	**Complex Series Supported Number of Legs** *#Complex* *#OrderHandling*	Complex series support a total of 12 option component legs. Complex series with 5 or fewer component legs are permitted to trade with leg markets. Complex series with 6 or more component legs are restricted to Complex- Only trading.	Standard Pillar	Standard Pillar
102	**Non-standard Complex Series** *#Complex* *#OrderHandling*	Complex Orders and complex series requests are accepted and restricted to complex to complex trading when submitted with the following component leg criteria: - Composed of two legs that are both Buys or both Sells and both legs are Calls or both legs are Puts.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- Composed of three or more legs and all legs are Buys or all legs are Sells.		
103	**Complex Net Pricing** *#Complex* *#MarketData* *#OrderHandling*	Pillar FIX - Net Debit price - identified without a sign indicates that the sender is intending to pay. - Net Credit price - identified with a negative sign indicates that the sender is requesting to receive payment. Pillar Binary Buyer - Net Debit price - identified without a sign indicates that the Buyer is intending to pay. - Net Credit price - identified with a negative sign indicates that the Buyer is requesting to receive payment. Seller - Net Credit price - identified without a sign indicates that the Seller is requesting to receive payment. - Net Debit price - identified with a negative sign indicates that the Seller is intending to pay. The order is posted to Pillar Complex Market Data with the price as identified on the Pillar Binary Complex Orders.	Standard Pillar	Standard Pillar
104	**Complex BBO** *#Complex* *#MarketData* *#OrderHandling*	Marketable Complex Orders including Complex Only orders are displayed to Pillar Complex Market Data at their Limit prices (Complex BBO can be locked/crossed).	Standard Pillar	Standard Pillar
105	**Complex FIX Messaging** *#Complex* *#Gateways* *#OrderHandling*	Complex Order, Cancel and Cancel Replace messages are rejected when symbol or side is provided on the messages. Acknowledgment messages reported are: - Pending Order acknowledgment for complex and an acknowledgment for each leg - Order reject for Complex Only - Pending Replace acknowledgment for complex and an acknowledgment for each leg - Replace for complex and a replace for each leg - Pending Cancel for complex and a pending cancel for each leg - UROUT for complex and a UROUT for each leg - Cancel reject for Complex Only - Fills for each leg only	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		Complex acknowledgment is sequenced ahead of the component leg acknowledgments. OrderID is the same for complex and leg level messages. SecurityType is MLEG for all complex and leg level messages.		
106	**Complex Binary Messaging** *#Complex* *#Gateways* *#OrderHandling*	Complex Orders and cancel replaces can only be sent using the Complex Series ID. Acknowledgment messages reported are: - Pending Order acknowledgment for Complex Only - Order reject for Complex Only - Pending Replace acknowledgment for Complex Only - Replace for Complex Only - Pending Cancel for Complex Only - UROUT for Complex Only - Cancel reject for Complex Only - Fills for complex and fill for each leg - Busts/Corrections for each leg only Component leg acknowledgments are sequenced ahead of the complex acknowledgment for fills. Both component leg and complex acknowledgments are not provided for any other acknowledgment message. OrderID is the same for complex and leg level messages. SecurityType is MLEG for all complex and leg level messages. Complex series request messages require that each component leg be defined using the options series index number that identifies the terms of the option legs to be traded.	Standard Pillar	Standard Pillar
107	**Limit Order Price Protection - Complex** *#Complex* *#OrderHandling* *#RiskControls*	The Complex Limit Price Protection begins validation following the opening or reopening of the complex series. All new Complex Orders following the opening/reopening and any residual for those orders arriving prior to and participating in the opening/reopening is validated before going into Core Trading. A Complex Order is rejected/cancelled if the following criteria is met: - Buy Limit price is greater than or equal to the Complex NBO + $1.00 - Sell Limit price is less than or equal to the Complex NBB - $1.00 The default limit is client configurable, via TOP or Pillar Binary.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
108	**Complex Series Protections** *#Complex* *#OrderHandling* *#RiskControls*	Complex Orders are rejected when any of the follow criteria is met: - Complex Order where all component legs are to Sell (Buy) if it is entered at a price that is less than $0.01 times the sum of the ratio on each leg of the Complex Order. - Vertical spread orders are rejected as follows: o Buying a lower (higher) strike call and selling a higher (lower) strike call and the sender would receive (pay) a net premium. o Buying a higher (lower) strike put and selling a lower (higher) strike put and the sender would receive (pay) a net premium. - Calendar spread orders are rejected as follows: o Buying a call with a shorter (longer) expiration while selling a call with a longer (shorter) expiration and the sender would pay (receive) a net premium. o Buying a put with a shorter (longer) expiration while selling a put with a longer (shorter) expiration and the sender would pay (receive) a net premium.	Standard Pillar	Standard Pillar
109	**Complex Series Limit** *#Complex* *#OrderHandling* *#RiskControls*	Limits are imposed on the maximum number of new complex series created: - The number of complex series created by an MPID - The number of complex series created per underlying symbol by an MPID When an MPID exceeds the limit of 100,000 new complex series exchange wide or the limit of 15,000 new complex series for an underlying symbol, Pillar rejects all subsequent new complex series from that MPID for the criteria breached for the balance of the trading day. Trade support staff cannot re-enable the firm. The complex series count is increased for each series created, regardless of whether or not the firm subsequently enters orders for the series. Series created from prior day GTC orders are not counted towards the limit.	Standard Pillar	Standard Pillar
110	**Complex Trading & Pricing** *#Complex* *#OrderHandling*	Complex orders are prevented from trading with other complex orders when the leg price is zero or is locked/crossed, however trading with the leg market is permitted. Complex transactions occur and are printed on the corresponding leg markets so long as they don't print through displayed leg interest on the local market or through the greater of $0.05 or 5% of the Away NBBO.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
111	**Complex Opening/Reopening Collars** *#Auctions* *#Complex* *#OrderHandling*	Opening/reopening Auction collar boundaries for complex series are restricted by the derived best bid or offer. If there is Customer interest on all the leg markets, the auction collar boundaries are $0.01 x the smallest leg ratio inside the side of the derived best bid or offer containing the Customer interest.	Standard Pillar	Standard Pillar
112	**Complex Opening/Reopening Market Data** *#Auctions* *#Complex* *#MarketData* *#Quoting*	A complex series is opened only when all leg series are opened. When the complex series is opened, an Options Status messages will be provided for the complex series with a status of "O". When a complex series is changed from halt to unhalt, there are 2 Option Status messages that go out. The first Option Status message is published with "5", then the next status with "O" upon completion of all leg series being opened.	Standard Pillar	Standard Pillar
113	**Complex Order Auctions (COA)** *#Auctions* *#Complex* *#MarketData* *#OrderHandling*	COA designated orders auction upon receipt. In order to auction, a COA order must be priced at the midpoint of the derived best bid or offer, or more. COA orders are rejected if received in the pre-open and during a Halt. Carryover COA GTC orders are handled as Complex Limit orders. COA orders trade vs resting complex orders priced up to and including the derived best bid or offer, unless there is Customer interest on all the leg markets, in which case, the COA trades up to $0.01 x the smallest leg ratio inside the derived best bid or offer, before starting an auction. COA RFQs provide an RFQ price and Auction ID over Pillar Complex Market Data. COA auctions have a maximum run time of 100 milliseconds with a single auction at any given time for a complex series. Auction responses (except IOC and GTX) are published to Pillar Complex Market Data at the time of receipt. COA auctions trade following the Exchange’s allocation algorithm. At the conclusion of a COA auction, the trades of the COA auction are followed by an RFQ to identify that a COA has concluded. The following market events cause on ongoing COA auction to end early:	Standard Pillar	Responses eligible for Pro-rata allocation are size capped to the size of the COA order.

		Standard Pillar	NYSE Arca Options	NYSE American Options
		- An incoming order to buy (sell) in the same complex series that is priced higher (lower) than the initiating COA Order to buy (sell) - An incoming order locks or crosses the derived best bid or offer on the same side as the COA order - The leg markets update causing the derived best bid or offer on the same side as the COA order to lock or cross a complex order including GTX - The leg markets update causing the contra side derived best bid or offer to lock or cross the COA initiation price - Halt in the series - Acceptance of a QCC in the same complex series - Acceptance of a CUBE in the same complex series (American only COA auctions that end due to a Trading Halt, end early without trades. Self-Trade is enforced during COA auctions.		
114	**GTX Orders** *#Auctions* *#Complex* *#MarketData* *#OrderHandling*	GTX orders are dedicated auction responses that can be sent in response to a CUBE or COA RFQ message. GTX orders that are received when no contra side auction is in progress are rejected. GTX orders are not published to OPRA or Pillar Market Data and are automatically cancelled at the end of the auction. GTX orders can only trade vs the auction order. GTX responses that are not executable vs the RFQ price are rejected/cancelled on arrival. A given GTX order can only participate in one auction. GTX responses to a CUBE can be defined with an Auction ID. Those with an Auction ID are only eligible to trade in the CUBE with the same Auction ID. GTX responses without an Auction ID are assigned to the last CUBE auction to start before the GTX order arrived. Auction IDs are not supported for COA auctions; if defined, a GTX order is rejected/cancelled.	Standard Pillar	Standard Pillar
115	**Bulk Cancel Filters for Complex Orders** *#Complex* *#Gateways* *#RiskControls*	Pillar Bulk cancels allow for specifying the cancellation of single leg orders only, Complex Orders only or both single leg and Complex Orders.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
116	**FLEX Orders** *#OrderHandling*	Outcry orders are accepted by Pillar for FLEX symbols from the Floor broker systems. "Admin" trade messages are published to OPRA. Series definition and trade messages are published to Pillar Deep Market Data.	Standard Pillar	Standard Pillar
117	**Cabinet Orders** *#OrderHandling*	Outcry Cabinet orders are accepted by Pillar from the Floor broker systems.	Standard Pillar	Standard Pillar
118	**Billing Invoice Support** *#General*	Pillar invoices are generated at an MPID level. Participants are required to designate a "Default Billing MPID" at the time of MPID set-up that will be used for all Firm Level billing programs such as Trading Permits and Port Fees. All Tiering calculations towards any rebate or incentive programs are calculated based on volumes across both Trading Platforms. See the NYSE Summary of Options Rate and Tiers for additional details.	N/A	Standard Pillar
119	**Customer Outputs** *#General*	All reports are delivered via MFT. Participants may request to subscribe to any of the new Pillar outputs by contacting NYSE-CustomerOutput@theice.com. See Pillar Options Client Reports for additional details.	N/A	Standard Pillar
120	**Market Maker Sliding Scale Invoicing** *#General*	Invoicing for the Market Maker Sliding Scale program is based on the MPID of the trade.	N/A	Standard Pillar
121	**Trade Ops Portal (TOP)** *#General*	TOP supports the following via a GUI and API: - View/Cancel orders - Risk management & bulk cancel capabilities - View trades - Post trade adjustments	Standard Pillar	Standard Pillar
122	**Post Trade Adjustments** *#General*	Real-time drop copy messages capture post-trade adjustments performed in TOP. Firms can subscribe for and download EOD execution reports via MFT to capture final state of all trades.	N/A	Standard Pillar
123	**Qualified Contingent Cross (QCC)** *#Complex*	QCC is a cross order with a minimum quantity of 1,000 contracts. Complex QCC is a minimum of 1,000 contracts per leg.	Standard Pillar	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#Gateways *#MarketData* *#OrderHandling*	QCC orders are not published to Pillar Market Data and do not rest on the Book. All QCC orders and trades must be at or inside the NBBO (NBBO for each series for a Complex QCC) and cannot be at the same price as resting Customer interest. QCC trades are published to OPRA and Pillar Market data. Complex QCC trades in non-standard ratios are not published to Pillar Complex Market Data. Complex QCC orders are accepted in ratios outside 3:1 in Pillar FIX only. Complex QCC orders can support Leg Ratio quantity up to 999,999 in Pillar FIX and 65,535 in Pillar Binary.		
124	**Customer-to-Customer Cross** *#Complex* *#Gateways* *#MarketData* *#OrderHandling*	Customer-to-Customer orders are cross orders with no minimum quantity, however each order in the cross must represent Customer interest. Customer-to-Customer orders are not published to Pillar Market Data and do not rest on the Book. Single Leg Customer-to-Customer orders and trades must be at or inside the NBBO and cannot be at the same price as resting Customer interest. Complex Customer-to-Customer orders and trade prices must adhere to the following: - At or inside the derived best bid or offer, unless Customer interest is on at least one of the leg markets. If there is Customer interest, then the Customer-to-Customer order must be $0.01 inside the side of the derived best bid or offer containing the Customer interest. - At or inside the Complex BBO, unless there is Customer interest. If there is Customer interest resting on Complex BBO, the price must be $0.01 inside the side with Customer interest. Customer-to-Customer trades are published to OPRA and Pillar Market Data. Complex Customer-to-Customer trades are published to Pillar Complex Market Data.	Standard Pillar	Standard Pillar
125	**BOLD Supported Order Types** *#Gateways* *#MarketData* *#OrderHandling*	The BOLD Mechanism sources additional liquidity for eligible order types that lock or cross an away market by displaying them to Pillar Market data via an RFQ message at the away market before they are routed, cancelled or re-priced.	N/A	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
		Supported Single Leg Order Types: The following order types are eligible for BOLD Mechanism functionality: - Market Day - Limit Day - Limit GTC - Limit IOC Routable - Limit Day Non-Routable (Option to Cancel or Reprice) - Limit Non-Routable GTC (Option to Cancel or Reprice) - Limit IOC Ineligible orders with a BOLD value in the *AttributedQuote* field are rejected with the reject code: "*R074 - Invalid Attributed Quote.*"		
126	**BOLD Identification** *#Gateways* *#OrderHandling*	Orders can be identified as BOLD on an order-by-order basis or by default. BOLD can be defaulted at a session level in both Pillar FIX and Binary. Any order may be submitted through a session that is defaulting the BOLD instruction, however BOLD functionality is only applied to order types that are eligible for BOLD.	N/A	Standard Pillar
127	**BOLD Timer and RFQ** *#Gateways* *#MarketData* *#OrderHandling*	BOLD Timer is 50 milliseconds and begins when the RFQ is disseminated. Multiple BOLD orders in the same series can be broadcast at a given time and each have its own timer. RFQs do not include a cumulative quantity of size or orders. BOLD-designated orders can be cancelled or replaced prior to execution. A BOLD RFQ that identifies the end of the BOLD is not provided.	N/A	Standard Pillar
128	**BOLD Availability** *#OrderHandling*	BOLD functionality is available during the core trading session, provided there is enough time for the BOLD Timer to run in its entirety. Any eligible BOLD-designated orders submitted during pre-open, after-market hours or during any other time that BOLD functionality is not available, are accepted but not processed by the BOLD Mechanism. The BOLD Timer concludes during trading halts or system disruptions. Any portion of the BOLD-designated order that did not execute before the BOLD Timer concluded are subjected to normal processing based on the order type.	N/A	Standard Pillar
129	**BOLD Execution** *#Gateways*	BOLD is not an auction and therefore does not have a specified response type. Quotes and orders received via Pillar FIX or Binary on the opposite side of the BOLD order are executed as received.	N/A	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
	#OrderHandling	BOLD orders and orders/quotes that execute against BOLD orders receive BOLD specific liquidity indicators. BOLD orders not executed within the BOLD Timer or executed partially are routed, cancelled, or posted to the Book based on the original order specifications.		
130	**BOLD Support with Cross orders** *#OrderHandling*	BOLD interaction with CUBE, Customer-to-Customer and QCC orders: - A BOLD-designated order arriving on either side of the market while a CUBE auction is ongoing does NOT end the CUBE auction early. - CUBE, Customer-to-Customer or QCC order received during a BOLD are accepted.	N/A	Standard Pillar
131	**CUBE Order Types** *#Auctions* *#Complex* *#Gateways* *#MarketData* *#OrderHandling*	A CUBE is a cross order, composed of a one CUBE order and one Contra order. Instead of trading on arrival, the CUBE order is published via an RFQ message to Pillar Market Data to allow other market participants an opportunity to participate in the trade. Each individual CUBE is identified by an Auction ID on the RFQ message. **Type P** - CUBE orders of any size. **Type S (AON)** - CUBE orders of 500 contracts or more. The above values are supported for both single leg and complex CUBE.	N/A	Standard Pillar
132	**CUBE Price Validations - Single leg** *#Auctions* *#MarketData* *#OrderHandling*	To be eligible to begin an auction, CUBE orders must meet the following price validations. Both CUBE Types **P** and **S (AON)** can be at or inside the NBBO unless there is Customer interest on the CUBE-side NBBO. - If the CUBE order price is through contra side NBBO, it is priced to be on the contra side NBBO. - If the Contra order price is through CUBE-side NBBO, it is priced to be on the CUBE-side NBBO. If there is Customer interest resting on the CUBE-side NBBO, then the CUBE or Contra order price must be priced $0.01 inside the CUBE-side NBBO. If the NBBO is $0.01 wide and the CUBE is for less than 50 contracts, then both the CUBE and Contra order price must be equal to the CUBE side NBBO. If there is Customer interest resting on the CUBE-side NBBO, then the CUBE is rejected. All CUBE types can be in penny increments regardless of the series.	N/A	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
133	**CUBE Price Validations - Complex in Standard Ratios (3:1)** *#Auctions* *#Complex* *#MarketData* *#OrderHandling*	To be eligible to begin an auction, complex CUBE orders must meet the following price validations. Complex CUBE Types **P** and **S (AON)** can be at or inside the derived best bid or offer, unless there is Customer interest on at least one of the leg markets. - If the CUBE price is through contra side derived best bid or offer, it is priced to the contra side derived best bid or offer, unless there is Customer interest. - If the Contra order price is through the CUBE-side derived best bid or offer, it is priced to the CUBE-side derived best bid or offer, unless there is Customer interest. If there is Customer interest resting on either side of the derived best bid or offer, then the CUBE or Contra order price must be $0.01 inside the side of the derived best bid or offer containing the Customer interest. All complex CUBE Types **P** and **S** (AON) can be at or inside the Complex BBO, unless there is Customer interest on the CUBE-side Complex BBO. - If the Contra order price is through the CUBE-side Complex BBO, it is priced to the CUBE-side Complex BBO, unless there is Customer interest. If there is Customer interest resting on the CUBE-side Complex BBO, then the CUBE or Contra order price must be priced $0.01 inside the CUBE-side Complex BBO.	N/A	Standard Pillar
134	**CUBE Price Validations - Complex in Non-standard Ratios (outside 3:1)** ***#Auctions*** ***#Complex*** ***#MarketData*** ***#OrderHandling***	To be eligible to begin an auction, non-standard complex CUBE orders (i.e., those outside of a 3:1 leg ratio) must meet the following price validations. Complex CUBE types **P** and **S** (AON) can be at or inside the derived national best bid or offer, unless there is Exchange Customer interest on any of the leg markets. - If the CUBE price is through contra side derived national best bid or offer, it is priced to the contra side derived national best bid or offer, unless there is Exchange Customer interest. - If the Contra order price is through the CUBE-side derived national best bid or offer, it is priced to the CUBE-side derived national best bid or offer, unless there is Exchange Customer interest. Non-standard complex CUBE or Contra order prices must be at least $0.01 times the leg ratio better than any leg containing Exchange Customer interest at the NBBO. No leg of a non-standard complex CUBE order may trade at the same price as resting Exchange Customer interest.	N/A	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
135	**CUBE Auction Duration** *#Auctions* *#Complex* *#MarketData* *#OrderHandling*	The CUBE order is allocated against responses and/or the Contra order at the end of the auction period. CUBE auctions have a set duration of 100ms. CUBE orders entered 100ms before Market Close are rejected.	N/A	Standard Pillar
136	**CUBE Contra Order Allocation and Surrender %** *#Auctions* *#Complex* *#Gateways* *#OrderHandling*	The Contra order can only trade with the CUBE order. A Contra order can be one of three different order types: Limit, AutoMatch Limit, and AutoMatch Market (single leg only). For CUBE Type **P**, the Contra order is granted a 40% entitlement allocation when at price. If the Contra order is a Limit order, a lessor allocation can be requested by defining a different Allocation Percentage. In this case, users indicate the percentage of the order they are willing to surrender and Pillar attempts to allocate only that amount. For CUBE Type **S** (AON), the Contra order is granted the entire allocation unless there are enough better priced non-Customer responses, or enough same priced Customer responses, or a combination of the two in sufficient quantity to fill the entire CUBE order. - If there are same or better priced Customer responses, but not in sufficient quantity either on their own or in combination with better priced non-Customer responses to fill the entire CUBE order, the CUBE and Contra order cancel without trading.	N/A	Standard Pillar
137	**CUBE Concurrent Auctions** *#Auctions* *#Complex* *#OrderHandling*	Once a CUBE auction begins, any GTX responses received are held until the auction ends, while non-GTX responses in the same series are allowed to trade, post, route or cancel, without causing the auction to end early. Multiple CUBE auctions in the same series can be conducted at the same time. Each CUBE executes against all contra side interest available at the exact instant the CUBE auction ends. To respond to a specific CUBE auction, an Auction ID is supported on GTX responses (see GTX orders).	N/A	Standard Pillar
138	**CUBE Allocations** *#Auctions* *#Complex* *#OrderHandling*	CUBE auction trades adhere to the standard Exchange allocation algorithm. - Displayed Customer interest trades in time - Displayed non-Customer interest trades Pro-rata - Non-displayed interest trades price/time with Customer Priority Responses eligible for Pro-rata allocation are size capped to the size of the CUBE order.	N/A	Standard Pillar

		Standard Pillar	NYSE Arca Options	NYSE American Options
139	**CUBE Early End Scenarios** *#Auctions* *#Complex*	The following market events cause on ongoing CUBE auction to end early: - CUBE-side BBO improves the RFQ price or the Contra order price when the Contra order is a Limit order. - Halt in the series	N/A	Standard Pillar
140	**CUBE Liquidity Codes** *#Auctions* *#Complex* *#Gateways*	Liquidity codes are used to identify when: - CUBE traded vs the Contra order - CUBE traded vs a GTX order - CUBE traded vs unrelated interest	N/A	Standard Pillar
141	**Behavior at Scheduled Series Close Time** *#General* *#Gateways* *#MarketData* *#OrderHandling*	Cease publishing all Quote messages to both SIP and Pillar Top Market Data at the series close time. Updates to the Pillar Deep Market Data continue until the Closed series status is published. Trading, routing, repricing and stop order election all end at the series close time. New orders and quotes are rejected after the Closing series status is published. Cancelation of interest is allowed until the Done for Day time. Pillar Deep Market Data updates continue for delete events until the Done for Day time.	Standard Pillar	Standard Pillar
142	**Done for Day Messages** *#Gateways*	Done for Day messages are sent for all open orders and quotes at the Done for Day time (30 minutes from late series market close), including for GTC orders.	Standard Pillar	Standard Pillar
143	**Options Firm Executive Summary Report** *#General*	The Options Firm Executive Volume Summary report classification of Complex Volume includes both Complex and Complex Volume that legged out.	Standard Pillar	Standard Pillar

Document Version History

Date	Document Version #	Change Summary
June 27, 2025	4.3	Updates made to the following cells (Updates are in light blue font throughout the document): - Row 23 *Order Identifiers*, column *Standard Pillar* - Row 40 *Order Behavior during Preopen*, column *Standard Pillar* - Row 41 *Order Behavior during Halt*, column *Standard Pillar* - Row 68 *Bulk Cancel Filters for Non-Market Maker Sessions*, column *Standard Pillar* - Row 83 *Pre-Trade Risk Controls*, column *Standard Pillar*
February 24, 2025	4.2	Updates made to the following cells: - Row 82 *Quote Condition*, column *Standard Pillar* - Row 112 *Complex Opening/Reopening Market Data*, column *Standard Pillar*
December 16, 2024	4.1	Updates made to the following cells: - Row 15 *Symbol Identification*, column *Standard Pillar* - Row 109 *Complex Series Limit*, column *Standard Pillar* - Row 134 *CUBE Price Validations - Complex in Non-standard ratios*, column *Standard Pillar*
June 17, 2024	4.0	Updates made to the following cells: - Row 83 *Pre-trade Risk Controls*, column *Standard Pillar* - Row 118 *Billing Invoice Support*, column *Standard Pillar* - Row 119 *Customer Outputs*, column *Standard Pillar* - Row 121 *Trade Ops Portal (TOP)*, row Title - Row 122 *Post Trade Adjustments*, row Title Removed the NYSE Options UTP column from the document.
March 12, 2024	3.4	Updates made to the following cells: - Row 49 *Supported Single Leg Order Types*, column *Standard Pillar* - Row 97 *Supported Complex Order Types,* column *Standard Pillar* - Row 124 *Customer-to-Customer Cross,* column *Standard Pillar* - Row 133 *CUBE Price Validations - Complex,* column *Standard Pillar*
January 12, 2024	3.3	Updates made to the following cells: - Row 15 *Symbol Identification*, column *Standard Pillar* - Row 49 *Supported Single Leg Order Types,* columns *Standard Pillar* and *NYSE American Options* - Row 55 *New Order Modifiers - Cancel Instead of Reprice,* column *Standard Pillar* - Row 57 *Reserve Orders,* column *Standard Pillar* - Row 113 *Complex Order Auctions, columns NYSE Options UTP and Standard Pillar*

November 3, 2023	3.2	Updates made to the following cells: - Row 15 *Symbol Identification,* column *Standard Pillar* - Row 49 *Supported Single Leg Order Types*, column *Standard Pillar* - Row 72 *MPID, Underlying, and MMIDMPID, Underlying, and MMID, column Standard Pillar* - Row 73 *Options Proprietary Market Data Channelization, column Standard Pillar*
October 2, 2023	3.1	Updates made to the following cells: - Row 49 *Supported Single Leg Order Types,* column *Standard Pillar* - Row 97 *Supported Complex Order Types, column Standard Pillar* - Row 109 *Complex Series Limit, column Standard Pillar* - Row 123 *Qualified Contingent Cross (QCC), column Standard Pillar* - Row 142 *Executive summary report,* columns *NYSE Options UTP and Standard Pillar*
July 10, 2023	3.0	Updates have been made to all cells to account for NYSE American options. Additional support has been added for Allocation, BOLD and CUBE.
February 10, 2022	2.9	Updates made to the following cells: - Row 3 *Ability to configure session level defaults*, columns *NYSE Options UTP* and *Standard Pillar* - Row 21 *Inbound Message Throttling*, column *Standard Pillar* - Row 39 *Legal Width for Auction Collars*, column *Standard Pillar* - Row 43 *Order Behavior during Preopen*, column *Standard Pillar* - Row 44 *Order Behavior during Halt*, columns *NYSE Options UTP* and *Standard Pillar* - Row 53 *Supported Single Leg Order Types*, column *Standard Pillar* - Row 69 *New Order Modifiers - Minimum Trade Size and Minimum Fill*, column *Standard Pillar* - Row 70 *Self-Trade Prevention (STP)*, column *Standard Pillar* - Row 97 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar* - Row 98 *Risk Control Aggregation*, columns *NYSE Options UTP* and *Standard Pillar* - Row 105 *Supported Complex Order Types,* column *Standard Pillar* - Row 117 Complex Series Limit, column *Standard Pillar*
November 18, 2022	2.8	Updates made to the following cells: - Row 28 *Done for Day Messages,* column *NYSE Options UTP* - Row 35 *CustomerOrFirm/MMID Validations on Orders*, column *Standard Pillar* - Row 37 *Underlying Open Triggers*, columns NYSE Options UTP and Standard Pillar - Row 40 *Auction Imbalance Publication Triggers, Times and Intervals*, column *Standard Pillar* - Row 99 *Arbitrage Check,* columns *NYSE Options UTP* and *Standard Pillar* - Row 100 *Intrinsic Value Check*, columns *NYSE Options UTP* and *Standard Pillar* - Row 123 *Behavior at Scheduled Series Close Time,* column *NYSE Options UTP*

September 15, 2022	2.7	Updates made to the following cells: - Row 28 *Done for Day Messages, column Standard Pillar* - Row 86 *Bulk Cancel Processing for Market Maker Sessions*, column *Standard Pillar* - Row 100 *Intrinsic Value Check*, column *Standard Pillar* - Row 123 *Behavior at Scheduled Series Close Time* - new row added
September 9, 2022	2.6	Updates made to the following cells: - Row 52 *Trading Collars*, column *Standard Pillar*
August 24, 2022	2.5	Updates made to the following cells: - Row 22 *Denial of Service Support* - new row added - Row 23 *Cancel on Disconnect*, columns *NYSE Options UTP* and *Standard Pillar* - Row 38 *Market Maker Quote Dependency for Opening/Reopening*, column *Standard Pillar* - Row 39 *Legal Width for Auction Collars*, column *Standard Pillar* - Row 56 *GTC Orders*, column *Standard Pillar* - Row 72 *Cancel and Cancel-Replace Handling/ Elimination of Cancel Request to Reduce OrderQty*, column *NYSE Option UTP* - Row 97 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar* - Row 99 *Arbitrage Check*, columns *NYSE Options UTP* and *Standard Pillar* - Row 100 *Intrinsic Value Check*, columns *NYSE Options UTP* and *Standard Pillar*
July 22, 2022	2.4	Updates made to the following cells: - Row 17 *Bulk Quote Support*, columns *NYSE Options UTP* and *Standard Pillar* - Row 18 *Bulk Quote Rejects/Cancels*, column *Standard Pillar*
April 8, 2022	2.3	Updates made to the following cells: - Row 27 *Done for Day Messages*, columns *NYSE Options UTP* and *Standard Pillar* - Row 37 *Market Maker Quote Dependency for Opening/Reopening*, column *Standard Pillar* - Row 73 *Dark Series*, column *NYSE Options UTP* - Row 96 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar* - Row 106 *Complex Only Orders*, column *Standard Pillar* - Row 116 *Complex Series Limit*, column *Standard Pillar* - Row 117 *Complex Trading & Pricing,* columns *NYSE Options UTP* and *Standard Pillar* - Row 120 *Complex Order Auctions (COA)*, column *Standard Pillar*
November 26, 2021	2.2	Updates made to the following cells: - Row 33 *Working Price on Acks*, column *Standard Pillar* - Row 38 *Legal Width for Auction Collars*, column *Standard Pillar* - Row 63 *Electronic Support Cabinet Orders,* column *Standard Pillar*

		- Row 71 *Cancel and Cancel-Replace Handling / Elimination of Cancel Request to Reduce Order Qty*, columns *NYSE Options UTP* and *Standard Pillar* - Row 85 *Bulk Cancel Processing for Market Maker Sessions,* column *Standard Pillar* - Row 104 *Supported Complex Order Types*, column *Standard Pillar* - Row 105 *Complex FOK Orders*, column *Standard Pillar* - Row 116 *Complex Series Limit*, column *Standard Pillar* - Row 120 *Complex Order Auctions (COA)*, columns *NYSE Options UTP* and *Standard Pillar*
September 24, 2021	2.1	Updates made to the following cells: - Row 96 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar* - Row 67 *New Order Modifiers - Proactive Trade Non-display (Non-Display Remove)* - Row 96 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar*
August 2, 2021	2.0	Functional differences detail related to Complex Options added. Support for Electronic Cabinet orders removed. Updates made to the following cells: - Row 12 *Clearing firm and CMTA Support*, column *Standard Pillar* - Row 31 *Max Price*, columns *NYSE Options UTP and Standard Pillar* - Row 32 *Min Price*, columns *NYSE Options UTP and Standard Pillar* - Row 33 *Working Price on Acks*, columns *NYSE Options UTP and Standard Pillar* - Row 98 Arbitrage Check, columns *NYSE Options UTP and Standard Pillar* - Row 99 Intrinsic Value Check, columns *NYSE Options UTP and Standard Pillar* - Row 100 Limit Order Price Protection - Single Leg, columns *NYSE Options UTP and Standard Pillar*
June 8, 2021	1.1	Updates made to the following cells: - Row 17 *Bulk Quote Support*, columns *NYSE Options UTP* and *Standard Pillar* - Row 38 *Legal Width for Auction Collars*, column *Standard Pillar* - Row 51 *Trading Collars*, column *Standard Pillar* - Row 54 *Market Orders*, column *Standard Pillar* - Row 56 *Add Liquidity Only (ALO) Orders*, columns *NYSE Options UTP* and *Standard Pillar* - Row 58 *Post no Preference (PNP) Order/Non-Routable Limit Orders*, columns *NYSE Options UTP* and *Standard Pillar* - Row 77 *XDP Series Status message publication sequence* - New row added - Row 96 *Activity-based Control Processing - Rolling Transaction/Volume/Percentage*, columns *NYSE Options UTP* and *Standard Pillar* - Row 101 *Setter Priority,* column *NYSE Arca Option*
March 31, 2021	1.0	Initial version