



**Functional Differences –
NYSE Group Options Platforms**

This document provides a comparison of functional behaviors across NYSE Options UTP and Pillar.

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

	NYSE Options UTP	Standard Pillar	NYSE Arca Option
1 Order Entry Time & Hours of Operation (all times represented as ET (Eastern Time)) <i>#General</i> <i>#Session</i>	Pre-open: 5:30 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 underlyings have late closing and remain in Core Session until 4:15 PM. Note: Orders and quotes received outside the pre-open and core trading times are rejected.	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 underlyings have late closing and remain in Core Session until 4:15 PM. List of underlyings with late closing. Note: Orders and quotes received outside the pre-open and core trading times are rejected.	Standard Pillar
2 Trading Session Eligibility on Orders	Does not support designation of trading session eligibility on orders, as there is only one trading session (Core Trading Session).	Customers are required to set TradingSessionID tag to 2 (Core Trading Session).	Standard Pillar

	#Gateways #General #Session			
3	Ability to configure session level defaults #Gateways #General #Session	Following session level default configurations are supported for all gateways: - Cancel on Disconnect For CGW FIX Entry: - BOLD	Following session level default configurations are supported: - Cancel on Disconnect - Order Priority Update Acknowledgment - Self-Trade Prevention - Test Symbols Only - Max Order/Quote Quantity - BOLD	BOLD not available
4	FIX Protocol Version #Gateways	Order entry sessions support FIX 4.0, 4.1, and 4.2. Drop copy sessions support FIX 4.0.	Both order entry and drop copy sessions support FIX 4.2 only.	Standard Pillar
5	FIX Sequence Numbers #Gateways #OrderHandling	The firm may reset both the client and Exchange side sequence numbers to 0 upon login by sending ResetSeqNumFlag (141) = Y on the "Logon Request" message.	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
6	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 10 characters in FIX Tag 1.	Inbound FIX Orders and Cancel/Replace Requests may be sent with up to 16 characters in FIX Tag 1, which will be echoed back as is on execution reports but truncated to 10 chars for clearing, end of day files, etc. Note: Only printable ASCII characters allowed, excluding comma, semicolon, pipe delimiter, "at" symbol, greater than/less than, ampersand (&) and single/double quotation mark.	Standard Pillar
7	Price, LastPx Formats on Outgoing Gateway Messages & Pillar Market Data Price Scale #Gateways #MarketData	CGW/UGW/MMD Price and LastPx fields on outgoing messages are formatted with 2 decimals.	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

<p>8</p> <p>ExecID and ExecRefID</p> <p>#Gateways #MarketData</p>	<p><u>CGW FIX:</u></p> <p>- ExecID - this tag/field is populated on all MsgType = 8 messages, with a numeric of up to 20 characters.</p> <p>- 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 numeric of up to 20 characters.</p> <p><u>UGW Binary/MMD:</u></p> <p>- ExecID and ExecRefID are supported as 8-digit Binary.</p>	<p><u>Pillar FIX:</u></p> <p>- ExecID - this tag/field is populated on all MsgType = 8 messages, with a string of up to 32 characters (alphanumeric), which is globally unique.</p> <p>- 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).</p> <p><u>Pillar Binary:</u></p> <p>- ExecID and ExecRefID are not supported.</p> <p>- Instead, each response message has its own SeqMsgID, which is globally unique and is referred back to on trade busts/corrections.</p>	<p>Standard Pillar</p>
<p>9</p> <p>Firm Identifier</p> <p>#Gateways</p>	<p>TPID (5 chars).</p> <p>TPID is implied by the session.</p>	<p>TPID is replaced by MPID (4 chars).</p> <p>MPID must be provided actively on each order.</p>	<p>Standard Pillar</p>
<p>10</p> <p>Order Identifiers</p> <p>#Gateways #MarketData</p>	<p>Orders are identified on outgoing messages with an exchange assigned OrderID. Quotes are not assigned with an ID.</p> <p>This ID is not published in XDP proprietary market data products.</p>	<p>Orders are identified on outgoing messages with OrderID, an unsigned 64-bit value (Exchange defined ID).</p> <p>This 64-bit value matches what is published in Pillar proprietary market data products, in the OrderID field.</p> <p>Quotes are not assigned with an ID.</p>	<p>Standard Pillar</p>
<p>11</p> <p>Trade Identifiers</p> <p>#Gateways #MarketData</p>	<p>Executions receive a ArcaExID, which is an un-bundled identifier unique to each pair of orders that execute.</p> <p>Binary and FIX: For corrections, the original trade ID is retained and reported in the ArcaExID field. This ArcaExID is how the client may link to the Trade ID reported to OCC.</p>	<p>Executions receive a DealID, which is an un-bundled identifier unique to each pair of orders that execute.</p> <p>DealID is made up of the following concatenated values, together forming an unsigned 64 bit value: GTCIndicator + SystemID + MarketID + TradeID</p> <p>The TradeID portion of this value matches what is published in Pillar 2.1 proprietary market data products, in the TradeID field.</p> <p>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 how the client may link to the Trade ID reported to OCC.</p> <p>Pillar Binary: For corrections, a new Deal ID is assigned and RefSeqMsgID provides a link back to the original transaction.</p>	<p>Standard Pillar</p>

		Post trade changes made in GEMS are not communicated via GWs (Order Entry or Drop Copy).	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 how the client may link to the Trade ID reported to OCC.	
12	Clearing firm and CMTA Support <i>#Gateways</i>	<u>CGW FIX:</u> ClearingFirm is used to identify the CMTA. ClearingAccount is used to provide an optional sub-account value to give-up a different TPID and clearing number. <u>UGW Binary:</u> ClearingFirm is used to identify either the default clearing number for the session or the CMTA. ClearingAccount is used to provide an optional sub-account value to give-up a different TPID and clearing number.	ClearingFirm is used to identify the CMTA. ClearingAccount is used to provide an optional clearing number that is different from the default clearing number for the associated MPID of an order. CMTA will be passed to OCC as-is.	Standard Pillar
13	Give-up Support <i>#Gateways</i>	Sub-accounts are used to perform clearing firm give-ups.	Sub-accounts are not supported. On an order-by-order basis the order sender must explicitly identify the MPID they will trade and the clearing number that they would like to clear the trade with.	Standard Pillar
14	Default ClearingAccount on Order Acks <i>#Gateways</i>	If ClearingAccount is not populated on an order, it is not populated on the order acknowledgment.	If ClearingAccount is not populated on an order: - 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.	Standard Pillar
15	Market Maker Symbol Appointments <i>#General</i> <i>#MarketMaker</i>	Market Maker symbol appointments are provided in a Nightly file.	Market Maker symbol appointments are provided within the Pillar Binary interface via an appointment message.	Standard Pillar
16	Market Maker Order and Quotes <i>#Gateways</i> <i>#General</i> <i>#MarketMaker</i> <i>#Orderhandling</i> <i>#Quoting</i>	UGW Binary and CGW FIX is used for orders and Market Maker Direct is used for bulk quotes. Separate (distinct) sessions are used for sending orders and sending quotes.	Pillar Binary supports both orders and quotes. Pillar FIX supports orders only. The same session supports both order and quote entry.	Standard Pillar

17	Bulk Quote Support <i>#Gateways</i> <i>#General</i> <i>#MarketMaker</i> <i>#Orderhandling</i> <i>#Quoting</i>	<p>Maximum 300 single sided quotes supported per bulk quote.</p> <p>GroupID is supported for quotes and are assigned by the Exchange.</p> <p>Quoting multiple price levels of depth is not supported. Quote uniqueness is defined as the combination of MMID + series + side.</p> <p>A zero Bid or Offer along with a zero quantity is accepted whether a standing quote for the associated side exists or not.</p>	<p>Maximum 20 single sided quotes supported per bulk quote.</p> <p>GroupID is supported for quotes; however, it is not Exchange assigned. Market Makers are allowed to tag their quotes to specific groups of their own choice.</p> <p>Quoting multiple price levels of depth is supported. Quote uniqueness is per 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.</p> <p>A zero Bid or Offer along with zero quantity is accepted as a quote cancel and will only be accepted by Pillar when a standing quote on the associated side exists. An R107 Too late to Cancel reject will be returned when no quote exists for the side being updated. A valid price with a quantity of zero will also be accepted as a cancel and will reject when there is no standing quote.</p>	Standard Pillar
18	Bulk Quote Rejects/Cancel <i>#Gateways</i> <i>#MarketMaker</i> <i>#Orderhandling</i> <i>#Quoting</i>	<p>When a quote is rejected the same side of the quote is assumed to be cancelled. An explicit acknowledgment is not provided for the quote that is cancelled.</p>	<p>When a quote is rejected with a Bulk Quote Acknowledgement the same side of the quote from the same session is cancelled. An explicit cancel acknowledgment is provided for the quote that sent every time a quote is cancelled, both solicited and unsolicited.</p> <p>When a Bulk Quote is rejected with an Application Layer Reject (section 8.18), quotes are not cancelled.</p>	Standard Pillar
19	Symbol Identification <i>#Gateways</i> <i>#MarketData</i>	<p>Index numbers for option series changes every day.</p>	<p><u>Single Leg Options:</u> Index numbers for option series will remain the same until the series expires.</p> <p><u>Complex Options:</u> All complex series are assigned unique Series index number (Series index numbers will be unique for a year) by the matching engine intraday. The Series index remains the same until the series expires or all GTC orders have been executed or cancelled.</p>	Standard Pillar

20	Gateway Failure Recovery <i>#Gateways</i> <i>#OrderHandling</i>	<p>Each session is configured with one IP address. In the event of a gateway failure, the affected sessions are moved to a cold backup that assumes the IP addresses of the primary sessions. Firms experience an interruption of service during the recovery process.</p>	<p>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.</p> <ul style="list-style-type: none"> - 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 will be triggered subject to 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. - For more details, see the "Failure Recovery" section of the Pillar Gateway FIX or Binary Protocol Specifications. 	Standard Pillar
21	Inbound Message Throttling <i>#Gateways</i> <i>#OrderHandling</i>	<p>Inbound messages are throttled on a per-session basis at a rate of 1000 messages/1 rolling second.</p>	<p>Inbound messages are throttled on a per-session basis at a rate of 500 messages/100 rolling milliseconds.</p> <p>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).</p> <p>NYSE Pillar Binary Gateway sessions have an option to specify in the "Login" request message to reject new inbound Orders when throttled, instead of the default behavior to queue the messages until they can be processed.</p> <ul style="list-style-type: none"> - New order messages will be rejected <78 – Throttle Reject > - Cancel, Modify and Bulk Cancel messages will be processed as if queued - Cancel portions of Cancel Replace messages will be processed as if queued. <p>The Exchange will send the following response messages:</p> <ul style="list-style-type: none"> o UROUT for the cancelled order with BitfieldFlowIndicator, "Throttled" bit set to '1' (Inbound Message was Throttled). o Cancel/Replace Reject with <78 – Throttle Reject>. <p>- For more details, see the "Pillar Stream Protocol Specification" and the "Message Throttling" section of the "NYSE Pillar Gateway Binary Protocol Specification."</p>	Standard Pillar
22	Cancel on Disconnect <i>#Gateways</i> <i>#OrderHandling</i>	<p>If enabled, cancellation criteria include all orders except GTC, GTX, and AON orders.</p>	<p>If enabled, cancellation criteria can be either of the options below. This setting must be made as part of the logon message:</p> <ul style="list-style-type: none"> - 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. 	Standard Pillar

23	Pending Cancel <i>#Gateways</i> <i>#OrderHandling</i>	A Cancel, Modify, or Cancel/Replace Request always receives a “pending” message, even if it can be applied right away.	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.: auction running, or interest routed away).	Standard Pillar
24	Pending Fast Cancel Replace/Modify <i>#Gateways</i> <i>#OrderHandling</i>	Pending Cancel/Replace and Pending Modify Acknowledgments are both represented with an OrdStatus (in FIX, tag 39) of “Pending Cancel/Replace.”	Pending Cancel/Replace and Pending Modify Acknowledgments are distinguished from each other with separate values. In Pillar Binary, this is represented by the “AckType” field on the “Order Modify/Cancel Request Acknowledgment.” In Pillar FIX, a value of “M” for “Pending Modify” has been added to both OrdStatus (39) and ExecType (150).	Standard Pillar
25	Text on Outgoing messages <i>#Gateways</i>	Reason text is provided on Execution Reports and Cancel/Cancel-Replace.	A numeric reason code along with new descriptive text is provided on Execution Reports and Cancel/Cancel-Replace E.g.: "R028: Invalid Price" Full List of reason codes can be found in Appendix B of the NYSE Pillar FIX Gateway and Appendix B of the NYSE Pillar Binary Gateway specifications.	Standard Pillar
26	Start of Day Ref Data <i>#Gateways</i>	Series referential data is only provided in Market Maker Direct and is limited to providing index numbers for series. Reference data is not provided over any gateway.	The following reference data will be provided over Pillar Binary: - Firm - Underlying Symbol - Series - Market Maker Appointment	Standard Pillar
27	Done for Day Messages <i>#Gateways</i>	Done for day messages are sent out for all open orders when the market closes for a series. Done for day message are not sent out for GTC orders.	The Done for Day messages are sent for all open orders when the market closes for a series, including for GTC orders.	Standard Pillar
28	Filters for Drop Copy messages <i>#Gateways</i>	Filters available for drop copy: - SenderCompID for orders Only supports Drop Copying of partial fills and fills. Drop Copy of Floor Broker activity is not available.	Filters available for drop copy: - SenderCompID - MMID - MPID - Clearing Number (Available to Clearing firms only) Order Activity Filters – 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). Note: For Market Maker Quotes , only Fills and Partial Fills are available via drop copy, regardless of the filter selected above. - Fills and Partial Fills only – only Execution Reports (MsgType = 8) with OrdStatus = 1 (Partially Filled) and 2 (Filled). Drop Copy of Floor Broker activity is available.	Standard Pillar

29 Contra Fields for Fills <i>#Gateways</i>	Contra fields are provided over drop copy only. The following fields are provided: ContraTPID ContraCMTA ContraCustomerFirm ContraClearingFirm	Contra fields are provided over both order and drop copy sessions. The following fields are provided: ContraMPID ContraCMTA ContraCustomerFirm ContraClearingFirm ContraOpenClose ContraMMID ContraCrossType	Standard Pillar
30 Max Quantity <i>#Gateways</i> <i>#OrderHandling</i> <i>#Quoting</i>	1,000,000 contracts.	999,999 contracts.	Standard Pillar
31 Max Price <i>#Complex</i> <i>#Gateways</i> <i>#OrderHandling</i> <i>#Quoting</i>	The maximum Limit price allowed for single leg order or quote is \$9,999.99. The maximum Limit price for a Complex Order is \$9,999.99.	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/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 \$99,999.99.	Standard Pillar
32 Min Price <i>#Complex</i> <i>#Gateways</i> <i>#OrderHandling</i> <i>#Quoting</i>	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. The minimum Limit price for a Complex Order is \$-9,999.99	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 penny/nickel option series symbols is \$0.00000001. - Min. price for nickel/dime option series symbols is \$0.01. The minimum Limit price for a Complex Order is \$-99,999.99	Standard Pillar

<p>33 Working Price on Acks</p> <p>#Gateways #OrderHandling</p>	<p>There is no working price field on Acks; Acks provide Limit price in the Price field/tag.</p> <p>Repricing orders and quotes - the display price is provided in the Limit price field.</p> <p>Repricing ack (Display Price Update Acknowledgment) is sent when display price of Repricing PNP or Repricing ALO order changes</p> <ul style="list-style-type: none"> - Only display price is provided on the repricing ack <p>The quantity fields on repricing ack:</p> <ul style="list-style-type: none"> - FIX and Binary formats provide both original OrderQty and current LeavesQty - Market Maker Direct format only provides current LeavesQty in Volume field 	<p>Acks have two additional fields in addition to Limit price:</p> <ul style="list-style-type: none"> - Working Price - WorkingAwayFromDisplay field <p>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.</p> <p>Display price is the price at which an order or quote is displayed, which may be different from the Limit price or working price.</p> <p>The working price for a Market order is returned as 0 if the order arrived when continuous trading is not in effect.</p> <p>A Market order that arrives during continuous trading returns Trading Collar in the WorkingPrice field/tag.</p> <p>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.</p> <p>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.</p> <p>Repricing ack (Order Priority Update Acknowledgment) is sent when working or display price of Limit Non-Routable or ALO/DAY ISO ALO order changes</p> <ul style="list-style-type: none"> - 'WorkingPrice' and 'WorkingAwayFromDisplay' fields are provided - Display price may be derived by the firm from these two fields (as described above) <p>The quantity fields on repricing ack:</p> <ul style="list-style-type: none"> - Pillar FIX provides leaves quantity in OrderQty tag, LeavesQty tag is set to 0 - Pillar Binary provides leaves quantity in OrderQty field 	<p>Standard Pillar</p>
<p>34 CustomerOrFirm/MMID Validation on Orders</p> <p>#Gateways #MarketMaker</p>	<p>No cross-validation between the SenderSubID field (where MMID is populated) vs. the CustomerOrFirm field on orders.</p>	<p>The SenderSubID/MMID field on an order must be populated if CustomerOrFirm is identified as Market Maker or Away Market Maker and will be rejected if populated for any other CustomerOrFirm value.</p> <p>In the case of CustomerOrFirm = Market Maker, Pillar also checks that the specified value is a valid local MMID, and that the MMID is valid in combination with the MPID specified on the order.</p>	<p>Standard Pillar</p>

35	Away Market Maker Identification <i>#Gateways</i> <i>#MarketMaker</i>	<p>Local market makers are identified with a CustomerOrFirm value of 3 and a valid exchange assigned MMID.</p> <p>Away market makers are identified with a CustomerOrFirm value of 3 and a user defined MMID preceded by "MM-".</p>	<p>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.</p> <p>Away market makers are identified with a CustomerOrFirm value of 4 in Pillar FIX and 5 in Pillar Binary along with user defined MMID.</p>	Standard Pillar
36	Underlying Opening Triggers <i>#Auctions</i>	<p>Opening for any single leg series begins once a 2-sided quote and a Round Lot trade is received for the underlying after 9:30 am, wherein trade price is at/within the bid and offer.</p>	<p>Opening for any single leg series begins once a 2-sided quote and a trade, regardless of the size, is received for the underlying after 9:30 am, wherein trade price is at/within the bid and offer.</p>	Standard Pillar
37	Market Maker Quote Dependency for Opening/Reopening <i>#Auctions</i> <i>#MarketMaker</i> <i>#Quoting</i>	<p>Series opening/reopening does not require Market Makers to submit quotes prior to opening or reopening. Legal width Quote for series opening can be established based off NBBO.</p>	<p>Once the underlying has opened, Pillar starts a timer (currently set to 30 second, but can be changed via subsequent Trade Updates) during which time, a series opening/reopening process requires the Market Makers to provide Quotes</p> <ul style="list-style-type: none"> - If there is only one Market Maker assigned to a series, Pillar waits for that Market Maker to provide a quote during this period. If a Market Maker quote has not been provided by the end of this period, the series will open if there is a legal width away NBBO. - If series has two or more Market Makers assigned, Pillar waits for at least two quotes from the Market Makers during this period. The two quotes may be from the same Market Maker or from two Market Makers. If two Market Maker quotes have not been received by the end of this period, Pillar waits for additional time (30 seconds) for at least one Market Maker to provide a quote. At the end of this period, if no Market Maker Quote has been provided, the series will open if there is a legal width away NBBO. <p>Market Data</p> <ul style="list-style-type: none"> - During the period where the Exchange is waiting for a Quote, the AuctionStatus field in the Options imbalance message (msg type 305) will display a status of "5" i.e., Auction will not run because Market Maker Quote is not received. 	Standard Pillar
38	Legal Width for Auction Collars <i>#Auctions</i>	<p>If there is no crossing interest on the Book, series can open if NBBO bid-ask differential does not exceed \$5.</p> <p>Series cannot open if the NBBO is locked or crossed.</p>	<p>If there is no crossing interest on the Book, series opening still requires a bid-ask differential of "legal width". However, after a preconfigured time (typically 90 seconds after underlying has opened) series can open without a legal width bid-ask differential if there is no crossing interest on the Book. Any Market Orders sitting on the Book would be cancelled when a series is opened without a legal width NBBO.</p>	Standard Pillar

		Series can open if the NBBO is locked however they cannot open if the NBBO is crossed.		
39	Auction Imbalance Publication Triggers, Times and Intervals <i>#Auctions</i> <i>#MarketData</i>	<u>Core Opening Auction:</u> - Imbalance publication begins as soon as the exchange begins to receive orders and quotes and there is a resulting total or market imbalance. - A new Imbalance message is disseminated any time there is an update to any field on the message until the series opens. <u>Reopening Auction:</u> - Imbalance publication begins immediately with trading halt. - A new Imbalance message is disseminated any time there is an update to any field on the message. - Imbalances are published until the series reopens.	<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. - A new Imbalance message is disseminated every 1 second, if changed from previous message until the series opens. <u>Reopening Auction:</u> - Imbalance publication begins immediately with trading halt. - A new Imbalance message is disseminated every 1 second, if changed from previous message. - Imbalances are published until the series reopens. If the halt occurs prior to the initial opening of the stock, Pillar stops publication of Opening Imbalances and starts publication of Halt Imbalances. As soon as the series is no longer halted, Pillar will resume with publication of Opening Imbalances until the series opens.	Standard Pillar
40	Auction Freeze Processing <i>#Auctions</i> <i>#Gateways</i> <i>#OrderHandling</i>	The series is frozen to facilitate the opening/reopening. During this time orders as well as cancels, mods and cancel/replaces for orders which arrive prior to the freeze, are not acknowledged immediately. The acks are sent only when the orders, cancels or cancel/replaces are processed off of the freeze queue.	The series is frozen to facilitate the opening/reopening. During this time orders as well as cancels, mods and cancel/replaces for orders which arrive prior to the freeze, are queued and immediately acknowledged with 'R176: Pending Cancel - Pending Auction State', 'R177: Pending Modify - Pending Auction State' and 'R178: Pending Replace - Pending Auction State' correspondingly. Any cancels, mods and cancel/replaces for orders within the freeze queue are immediately processed. Once the auction is conducted, the queued orders, cancels or cancel/replaces are processed off the freeze queue.	Standard Pillar
41	Market Order Handling while Auction Price Calculation <i>#Auctions</i> <i>#Gateways</i> <i>#OrderHandling</i>	For calculating Auction Indicative Price, Market orders are traded as aggressively priced Limit orders and included in indicative price at the contra side auction collar.	For calculating Auction Indicative Price, Market orders are included at the price derived based off other Limit orders participating in the auction. If there are no Limit orders in the auction, Market orders trade at the midpoint of the legal width quote. Unmatched Market orders do not affect the Indicative Match Price.	Standard Pillar

42	Order Behavior during Preopen <i>#Auctions</i> <i>#MarketData</i> <i>#OrderHandling</i> <i>#Quoting</i>	<p>Quotes entered prior to the opening transition are displayed on the XDP Market Data. Orders entered prior to the opening transition are not displayed on the XDP Market Data. They (orders) rest on the Book and wait for the opening transition.</p>	<p>Quotes and orders entered prior to the opening transition are displayed on Pillar Deep Market Data (for their display quantity) at their Limit price.</p> <p>Any auction eligible orders are ranked on Book. They rest on the Book to participate in the opening auction.</p> <p>Any non-auction eligible orders (e.g. Limit non-displayed and AON) are not ranked on the Book. They rest on the Book in a non-live state and wait for the opening transition upon which they get ranked in effective sequence behind any orders already ranked on Book.</p>	Standard Pillar
43	Order Behavior during Halt <i>#Auctions</i> <i>#MarketData</i> <i>#OrderHandling</i> <i>#Quoting</i>	<p>Market orders are not cancelled upon halt and the newly arriving ones are accepted.</p> <p>Quotes are cancelled upon halt.</p> <p>Resting orders do not re-price to their Limit price and remain at their last working price at the time of the halt.</p> <p>Orders entered during halt are not displayed to XDP Market Data. They rest on the Book and wait for the opening transition.</p>	<p>Resting Market and Limit orders that are collared prior to halt are cancelled upon halt. The newly arriving ones are accepted during halt.</p> <p>Quotes are cancelled upon halt.</p> <p>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 Market Data.</p> <p>Quotes and orders entered during the halt are displayed on Pillar Deep Market Data (for their display quantity) at their Limit price.</p> <p>Any auction eligible orders arriving during the halt are ranked on Book. They rest on the Book to participate in the reopening auction.</p> <p>Any non-auction eligible orders (e.g. Limit non-displayed and AON) arriving during the halt are not ranked on the Book. They rest on the Book in a non-live state and wait for the reopening transition upon which they get ranked in effective sequence behind any orders already ranked on Book.</p>	Standard Pillar
44	Order Handling after Opening <i>#Auctions</i> <i>#OrderHandling</i>	<p>When a series opens, any unexecuted non-routable interest is repriced if crossing away BBO.</p>	<p>When a series opens, any unexecuted non-routable interest is cancelled if it is locking or crossing away BBO irrespective of the instructions on the orders to reprice or cancel. This includes ALO orders, non-routable Limit orders, Limit non-displayed orders and AON orders.</p>	Standard Pillar
45	Imbalances Calculation - General <i>#Auctions</i> <i>#MarketData</i>	<p>If legal width NBBO does not exist to establish the opening/reopening auctions collars for the Imbalance calculation, Indicative Price, Paired Qty and Total Imbalance Qty are not calculated.</p>	<p>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.</p>	Standard Pillar

46	Imbalances - Interest Included in Calculations of Imbalance and Paired Quantities <i>#Auctions</i> <i>#MarketData</i>	<u>Opening and Reopening Imbalances:</u> All interest eligible to participate in the auction is included in calculations.	<u>Opening and Reopening Imbalances:</u> 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
47	Additional Fields on Imbalance Message <i>#Auctions</i> <i>#MarketData</i>	<u>Indicative Match Price:</u> N/A. The Indicative Match Price is provided under Reference price field. <u>Continuous Book Clearing Price:</u> N/A <u>Auction Interest Clearing Price:</u> N/A <u>Auction Status:</u> N/A <u>Auction Collars:</u> N/A	<u>The following additional fields are included on the Imbalance message:</u> <u>Indicative Match Price:</u> Indicative Match Price is provided under 'Indicative Match Price' field. <u>Continuous Book Clearing Price:</u> 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. <u>Auction Interest Clearing Price:</u> The price where all eligible auction only interest would trade inside the Auction Collars. <u>Auction Status:</u> Indicates whether the opening or reopening preconditions have been satisfied for the auction to run. <u>Auction Collars:</u> Upper Collar and Lower Collar fields are populated with the legal width bid and offer which establish the opening/reopening auctions collars.	Standard Pillar
48	Imbalance Calculation - Market Imbalance Quantity <i>#Auctions</i> <i>#MarketData</i>	<u>Opening and Reopening Imbalances:</u> Market Imbalance is the difference between the quantities of buy and sell market orders.	<u>Opening and Reopening Imbalances:</u> Market Imbalance is the quantity of any remaining Market orders that are not matched for execution in the auction.	Standard Pillar
49	Imbalance Message - Auction Type <i>#Auctions</i> <i>#MarketData</i>	O – Core Opening Auction H – Reopening Auction (Halt resume)	M – Core Opening Auction H – Reopening Auction (Halt resume)	Standard Pillar
50	Auction Print Reporting to OPRA and Pillar <i>#Auctions</i>	All auction prints are reported to OPRA and XDP Market Data individually.	All auction prints are reported to OPRA and Pillar Top Market Data & Pillar Deep Market Data individually.	Standard Pillar

#MarketData		In addition, a consolidated Cross Trade Message is published on Pillar Deep Market Data. For individually reported auction trades on Pillar Deep Market Data, 'PrintableFlag' is set to 0 to avoid double counting of the volume executed in the auction.															
51 Trading Collars #General #OrderHandling	<p>Market orders are collared off the same side NBBO, aggressively priced Limit orders are collared off the contra side NBBO.</p> <p>Aggressively priced Limit orders or Quotes arriving on the same side as a collared order will cause the collared order's display price order to update. In most cases, incoming same-side interest at a better price than the collared orders' display price will cause the collared order to reprice.</p> <p>Trading Collars settings are as follows based on the same side NBBO:</p> <table border="0"> <tr><td>< \$2.00</td><td>- \$0.10</td></tr> <tr><td>\$2.00 - \$5.00</td><td>- \$0.16</td></tr> <tr><td>> \$5.00 - \$10.00</td><td>- \$0.20</td></tr> <tr><td>> \$10.00 - \$20.00</td><td>- \$0.32</td></tr> <tr><td>> \$20.00</td><td>- \$0.40</td></tr> </table>	< \$2.00	- \$0.10	\$2.00 - \$5.00	- \$0.16	> \$5.00 - \$10.00	- \$0.20	> \$10.00 - \$20.00	- \$0.32	> \$20.00	- \$0.40	<p>Market orders and aggressively priced Limit orders are collared based on the following Trading Collars Reference Price:</p> <ul style="list-style-type: none"> - Trading Collars Reference Price for the orders that arrive during continuous trading is contra side NBBO - Trading Collars Reference Price for the orders that arrived prior to the opening and during the halt is: <ul style="list-style-type: none"> o Auction price. If none: o Auction collar price (upper collar for Buy orders, lower collar for Sell orders). If none: o Contra side NBBO <p>Trading Collar is calculated as the percentage/dollar value off the Reference price.</p> <p>If there is no Trading Collars Reference Price, Limit orders are not collared (Market Order behavior is described in item 54).</p> <p>The order will trade/route up to the Trading Collar. Once it hits the price of a Trading Collar, it will be placed on the Book at that price for 500 milliseconds, after which it will be cancelled. The collars are never recalculated.</p> <p>Trading Collars settings are as follows based on the Trading Collars Reference Price:</p> <table border="0"> <tr><td>\$0 - \$1.00</td><td>- \$0.25</td></tr> <tr><td>Above a \$1.00</td><td>- the lesser of \$2.50 or 25% of the Reference Price</td></tr> </table>	\$0 - \$1.00	- \$0.25	Above a \$1.00	- the lesser of \$2.50 or 25% of the Reference Price	Standard Pillar
< \$2.00	- \$0.10																
\$2.00 - \$5.00	- \$0.16																
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> \$20.00	- \$0.40																
\$0 - \$1.00	- \$0.25																
Above a \$1.00	- the lesser of \$2.50 or 25% of the Reference Price																

52 Supported Single Leg Order Types <i>#OrderHandling</i>	Order types in red are not supported in Pillar.	Order types in bold are newly introduced in Pillar.	Standard Pillar
	<p>Market Orders:</p> <ul style="list-style-type: none"> Market DAY Market GTC <p>Limit Orders</p> <ul style="list-style-type: none"> Limit DAY Limit GTC Limit IOC NOW <p>PNP Orders</p> <ul style="list-style-type: none"> Limit DAY PNP Limit DAY PNP Repricing Limit DAY PNPB Limit DAY PNPLO Limit GTC PNP Limit GTC PNP Repricing Limit GTC PNPB Limit IOC <p>ALO Orders</p> <ul style="list-style-type: none"> Limit DAY Limit DAY Repricing <p>Reserve Orders</p> <ul style="list-style-type: none"> Reserve Limit DAY Reserve Limit DAY PNP Reserve Limit GTC <p>Intermarket Sweep Orders</p> <ul style="list-style-type: none"> Limit IOC ISO <p>All or None Orders</p> <ul style="list-style-type: none"> Market DAY AON 	<p>Market Orders:</p> <ul style="list-style-type: none"> Market DAY Market GTC <p>Limit Orders</p> <ul style="list-style-type: none"> Limit DAY Limit GTC Limit IOC Routable <p>Non-Routable orders</p> <ul style="list-style-type: none"> Limit DAY Non-Routable (Option to Cancel or Reprice) Limit DAY Non-Display Limit GTC Non-Routable (Option to Cancel or Reprice) Limit GTC Non-Display Limit IOC <p>ALO orders</p> <ul style="list-style-type: none"> Limit DAY ALO (Option to Cancel or Reprice) <p>Reserve Orders</p> <ul style="list-style-type: none"> Reserve Limit DAY Reserve Limit DAY Non-routable (Option to Cancel or Reprice) Reserve Limit GTC Reserve Limit GTC Non-routable (Option to Cancel or Reprice) <p>Intermarket Sweep Orders</p> <ul style="list-style-type: none"> Limit IOC ISO Limit DAY ISO Limit DAY ISO ALO (Option to Cancel or Reprice) <p>All or None Orders</p>	

	<ul style="list-style-type: none"> • Market GTC AON • Limit DAY AON • Limit GTC AON <p>Fill or Kill</p> <ul style="list-style-type: none"> • Limit FOK <p>Stop Orders</p> <ul style="list-style-type: none"> • Stop DAY • Stop Limit DAY • Stop GTC • Stop Limit GTC <p>Opening Only</p> <ul style="list-style-type: none"> • MOO • LOO <p>Cross Orders</p> <ul style="list-style-type: none"> • QCC 	<ul style="list-style-type: none"> • Limit DAY AON • Limit GTC AON <p>Fill or Kill</p> <ul style="list-style-type: none"> • Limit FOK <p>Stop Orders</p> <ul style="list-style-type: none"> • Stop DAY • Stop Limit DAY • Stop GTC • Stop Limit GTC <p>Opening Only</p> <ul style="list-style-type: none"> • MOO • LOO • Imbalance Offset <p>Cross Orders</p> <ul style="list-style-type: none"> • QCC <p>For more information, refer to Order Attribute Matrices at: Pillar Options FIX Order Validation Matrix Pillar Options Binary Order Validation Matrix</p>	
<p>53 Support Market Maker Quote Types</p> <p>#MarketMaker #Quoting</p>	<p>Quote types in red are not supported in Pillar.</p> <p>Standard Quote Re-pricing Quote Light Only Quote ALO Re-pricing Quote</p>	<p>Quote types in bold are newly introduced in Pillar.</p> <p>Standard Quote (follows non-routable limit orders) Re-pricing Quote (follows non-routable limit orders) ALO Quote ALO Re-pricing Quote</p>	<p>Standard Pillar</p>

54	Market Orders <i>#OrderHandling</i>	<p>Market order is rejected:</p> <ul style="list-style-type: none"> - If there is already a collared marketable order on the contra side of the arriving Market order in a wide market. - If there is no NBBO (no NBB and no NBO). - Sell Market orders are rejected if there is no NBO. <p>After executing/routing Market order within the Collar Range, Market order is cancelled if there are no quotes (local or away) on either side of the market.</p>	<p>Market order is rejected:</p> <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> o If NBO is > \$0.50, Sell Market order is rejected (cancelled) o If NBO is <= \$0.50, Sell Market order is accepted and displayed @ 1 MPV (no timer). <p>If accepted, an order executes/routes up to the Trading Collar</p> <ul style="list-style-type: none"> - If there are no quotes (local or away) on the contra side of the order after all possible executions/routes, the residual of the order is cancelled. - Otherwise it is displayed at a Trading Collar for 500 msec, after which it is cancelled. <p>Once displayed at a collar, a Market order is cancelled if contra side NBBO changes to zero.</p>	Standard Pillar
55	GTC Orders <i>#OrderHandling</i>	<p>ClOrdID must begin with the current date. The format of the ClOrdID must start with YYYYMMDD. E.g.: 11=20080623-XXXXXXX or 11=20080623XXXXXXX.</p> <p>On GTC order load from the prior day, no restatement is sent to the client.</p> <p>When a series expires, no notification is sent to the client.</p> <p>If the TPID or MMID is removed, the GTC order will be rejected upon loading from prior day. However, no reject message is sent back to the client.</p> <p>During corporate action, the affected GTC orders are cancelled. Orders will be cancelled overnight.</p> <p>Unexecuted GTC orders are reloaded when there is matching engine failure.</p>	<p>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.</p> <p>On GTC order load from the prior day, a restatement message is sent to the client.</p> <p>When a series expires, a DFD (Done for day) message is sent to the client with reason code/text indicating "Series Expired."</p> <p>If the MPID or MMID is removed, the GTC order will be rejected back to the originating session upon loading from the prior day.</p> <p>Trading Collars and Limit Order Price protection is calculated on each trading day a GTC is live.</p> <p>During corporate action, affected GTC orders are rejected back to the originating session upon loading from the prior day.</p> <p>Unexecuted GTC orders may be cancelled during failure scenarios. Client will be notified on a best effort basis.</p>	Standard Pillar

56	Add Liquidity Only (ALO) Orders <i>#Auctions</i> <i>#OrderHandling</i>	<p>ALO does not participate in opening/reopening auctions. Arriving ALO orders are rejected before the opening and during the trading halt. Resting ALO orders are cancelled at the time of a trading halt.</p> <p>If an ALO order with an option to cancel would trade or route on arrival, the order will be rejected.</p> <p>Repricing ALO is rejected if its Limit price is more than 1 MPV away from the initial display price.</p> <p>When locking displayed or non-displayed local interest, ALO order is cancelled, repricing ALO order works and displays 1 MPV less aggressive than the locking displayed or non-displayed interest. When locking an away BBO, ALO order is cancelled, repricing ALO displays 1 MPV less aggressive than the away BBO and works at the away BBO.</p>	<p>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.</p> <p>If an ALO order with an option to cancel would trade or route on arrival, the order will be accepted, an order acknowledgment sent and then the order will be cancelled.</p> <p>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 will either remain there or will be cancelled back (based on the customer's choice) if the conditions change in such a way that the order can be repriced. ALO repricing quotes will not have the option to cancel.</p> <p>When locking or crossing local interest or an away BBO, ALO that can reprice, behaves as follows (the sequence of validation is implied):</p> <ul style="list-style-type: none"> - 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. <p>When locking or crossing local interest or an away BBO, ALO that cancels instead of repricing, cancels except for the following:</p> <ul style="list-style-type: none"> - If it locks non-displayed interest, it will not cancel, since it doesn't need to reprice. It just works and displays at the price of the locking non-displayed interest. 	Standard Pillar
57	PNP Blind Order / Limit Non-Displayed Orders <i>#Auctions</i> <i>#OrderHandling</i>	<p>PNPB is dark at any price except for its limit; displayed at its limit. When at its limit, stands its ground if it gets crossed by the away BBO.</p> <p>PNPB can participate in opening/reopening auctions.</p>	<p>Limit Non-Displayed order is always dark, even at its Limit price, and continuously reprices if it gets crossed by the away BBO.</p> <p>Limit Non-Displayed does not participate in opening/reopening auctions.</p>	Standard Pillar

58	Post no Preference (PNP) Order / Non-Routable Limit Orders <i>#OrderHandling</i>	Repricing PNP order is rejected if its Limit price is more than 1 MPV away from the initial display price. If a PNP order with an option to cancel would route to an away market on arrival, the order will be rejected.	Order type renamed as 'Non-Routable Limit order' 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, and once resting on the Book, its display price can be adjusted one additional time. After that the order will either remain there or will be cancelled back (based on the customer's choice) if the conditions change in such a way that the order can be repriced. Repricing quotes will 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 will be accepted, an order acknowledgment sent and then the order will be cancelled.	Standard Pillar
59	Reserve Orders <i>#OrderHandling</i>	When reserve order is crossed by an away quote, the Reserve portion stands its ground and can be executed at that price.	Only displayed portion of a Reserve order stands its ground when crossed by an away quote. The reserve portion of the reserve order behaves as Limit Non-Displayed order (i.e. it will reprice to the crossing away quote). As the away quote updates, the reserve portion will reprice up to the price of a displayed portion. This applies to both Limit Reserve and Limit Non-Routable Reserve.	Standard Pillar
60	Stop and Stop Limit Orders <i>#OrderHandling</i>	Buy (Sell) Stop Limit order is accepted if its Stop price is higher than (lower than) its Limit price. Stop orders are not elected when the underlying is in Limit State/Straddle State. When Limit State/Straddle State is lifted, Stop orders are not evaluated for election until a new last sale is received or new exchange BBO is published. When elected on exchange BBO, only the final quote is published, after all elected orders are processed. Restrictions on replacing elected Stop/Stop Limit orders: - Stop price of an order cannot be changed. - If an elected Stop/Stop Limit order is replaced with Stop/Stop Limit order, it is allowed (as long as Stop price is not changed), but the replacement will keep the 'elected' state of the order and will act as Market/Limit order.	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 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 (but they 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 will 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 will keep its standing and will keep 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 one, with new OrderID, is entered). If elected Stop/Stop Limit order is replaced with another Stop/Stop Limit, the replacement is unelected.	Standard Pillar

61	AON (All or None) Orders <i>#OrderHandling</i>	<p>AON Orders execute solely against interest resting in the Book when sufficient size is available.</p> <p>AON Orders are not subject to Trading Collars.</p>	<p>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.</p> <p>AON orders are subject to Trading Collars.</p>	Standard Pillar
62	Electronically Support FLEX Orders <i>#OrderHandling</i>	<p>FLEX trades can only be entered via GEMS.</p> <p>“Admin” message published to OPRA - manually via NYSE Floor Staff.</p> <p>No messages published to XDP Market Data.</p>	<p>Electronic Floor trades are available for FLEX symbols from the Floor broker systems.</p> <p>FLEX Trades can also be added by the exchange staff as a backup.</p> <p>“Admin” message published to OPRA - Automatically.</p> <p>Series definition message and trade message is published to Pillar Market Data.</p>	Standard Pillar
63	Electronically Support Cabinet Orders <i>#OrderHandling</i>	<p>Cabinet trades can only be entered via GEMS.</p>	<p>Electronic Floor trades are available for Cabinet from the Floor broker systems.</p>	Standard Pillar
64	New Order Modifiers - Cancel Instead of Reprice <i>#Gateways</i> <i>#OrderHandling</i>	<p>N/A</p>	<p>When ‘cancel instead of reprice’ modifier (CancelInsteadOfReprice) is set to 3, an order is cancelled instead of repricing (ALO/ DAY ISO ALO will cancel if it needs to reprice for any local interest or an away quote, Limit Non-Routable will cancel if it needs to reprice for an away quote).</p> <p>When ‘cancel instead of reprice’ modifier (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 will be cancelled back if the conditions change in such a way that the order can be repriced.</p> <p>The modifier is available to Limit Non-Routable orders (including Reserve), ALO and DAY ISO ALO.</p>	Standard Pillar

65	Order Handling when Order's Working Price is Different from Display Price <i>#OrderHandling</i>	For Repricing PNP and Repricing ALO orders: - When the working price is adjusted to be the same as the displayed price (while display price isn't changing), an order gets new 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 adjusted to lock the away market.	For Limit Non-Routable and ALO orders that can reprice: - 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
66	New Order Modifiers - Proactive If Locked (for routable orders) <i>#Gateways</i> <i>#OrderHandling</i>	N/A	When Proactive If Locked modifier is set (ProactivelyLocked = 1), a resting order will proactively route 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
67	New Order Modifiers - Proactive Trade Non-display (Non-Display Remove) <i>#Gateways</i> <i>#OrderHandling</i>	N/A	A resting order designated with a Non-Display Remove Modifier (ProactivelyLocked = 2) will trade as the liquidity taker against an arriving ALO order that would display at the undisplayed price of the resting order. The modifier is available to Limit Non-Routable orders (including Reserve), Limit Non-Displayed orders and AON orders.	N/A
68	New Order Modifiers - Minimum Trade Size and Minimum Fill <i>#Gateways</i> <i>#OrderHandling</i>	N/A	Minimum Trade Size (MinQty) can be entered on the following order types, with or without an optional "Minimum Fill" instruction (RoutingInst = 8). - Limit IOC - Non-Displayed Limit Minimum Trade Size can be less than or equal to the order quantity. Once resting, when the value specified for Minimum Trade Size is greater than the leaves quantity of the order, the balance of the order is cancelled. On arrival, an order with MinQty and "Minimum Fill" instruction will trade only against individual resting contra-side orders that each satisfy the MinQty. On arrival, an order with MinQty that does not have this modifier will trade with contra-side orders that in aggregate or individually satisfy the MinQty. Once resting, an order with MinQty will continue to be evaluated against individual arriving contra-side orders, regardless of adding the Min Fill modifier.	Standard Pillar

69	Self-Trade <i>#General</i> <i>#OrderHandling</i> <i>#Quoting</i>	<p>STP is supported for Market Makers only.</p> <p>STP matches against the TPID of orders and the TPID assigned to the MMID of quotes.</p> <p>STP is not supported for complex.</p>	<p>STP is supported for all clients.</p> <p>STP matches against the MPID of the orders and quotes. An optional user defined SubID can be used in conjunction with the MPID to further distinguish self-trade matches.</p> <p>STP is supported for complex to complex transactions; however complex to legs self-trade is not supported.</p>	Standard Pillar
70	Partially Routed Order with Quantity Returned Unexecuted from Away Market <i>#MarketData</i> <i>#OrderHandling</i>	<p>The returned quantity is treated as a newly arriving order and gets a new effective sequence.</p>	<p>When interest is returned unexecuted from the away market, the resting quantity of this order will be increased by the returned unexecuted quantity, and the order keeps its most recent effective sequence. The order also keeps its original OrderID. A Modify message will be sent to Pillar Deep Market Data when the resting quantity of the order is increased by the returned unexecuted quantity from the away market.</p>	Standard Pillar
71	Cancel and Cancel-Replace Handling/ Elimination of Cancel Request to Reduce OrderQty <i>#Gateways</i> <i>#OrderHandling</i> <i>#Quoting</i>	<p>To reduce the OrderQty on an open order, the Fast Cancel Replace Request message is used. Once reduced, the order maintains its effective sequence and existing OrderID.</p> <p>A Cancel-Replace order gets a new effective sequence and new OrderID, regardless of what is changed from the original order.</p> <p>All quote updates are considered new quotes and will result in a new ranking on the Book.</p> <p>A Cancel/Replace Request to change the quantity of an order in a pending state when the request comes in, and that is fully executed or cancelled before the quantity change can be applied – the Cancel/Replace Request will be rejected.</p> <p>If a Cancel Request or Cancel-Replace Request is rejected, the OrdStatus on the Cancel/Cancel-Replace Reject message will denote the actual order status (e.g., Filled, Partial Filled) at the time of the reject.</p> <p>If a Cancel-replace Request gets rejected by the matching engine, the original order remains on the order book, and subsequent Cancel or Cancel-replace Requests can be sent for that order.</p>	<p>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 effective sequence and existing OrderID. For reserve orders, reserve quantity will be reduced before being applied to the publish quantity.</p> <p>For changes other than those listed above, Cancel-Replace gets a new effective sequence and new OrderID.</p> <p>A Modify or Cancel/Replace Request to reduce quantity with a specified OrderQty less than the executed quantity of that order – will get a “Replaced” response with LeavesQty = 0.</p> <p>Reducing quantity for a quote is treated as a modify and the ranking on the Book will be maintained. Any other change will result in a new ranking on the Book.</p> <p>A Modify or Cancel/Replace Request to change the quantity of an order in a pending state when the request comes in, and that is fully executed or cancelled before the quantity change can be applied – will receive a Pending Cancel Ack followed by a Cancel Reject message.</p> <p>If a Cancel Request or Cancel-Replace Request is rejected, the OrdStatus on the Cancel/Cancel-Replace Reject message will always be set to "Rejected".</p> <p>If the Cancel-replace Request gets rejected specifically due to market conditions by the matching engine, the message is rejected, and the original order will be cancelled from the order book.</p>	Standard Pillar

72	Pending Cancel Acknowledgments <i>#Gateways</i> <i>#OrderHandling</i>	<p>Multiple Pending Cancel Acks are never sent for an order.</p> <p>Pending Replace Acks for Cancel/Replace are sent with the attributes of the new (replacement) order.</p>	<p>An order will receive multiple pending Acks indicating the current state of the order in the following scenarios:</p> <p>The firm attempts to cancel or cancel/replace an order during a Trading Session transition, and then the order routes to an away market immediately after the transition.</p> <p>The firm attempts to cancel or cancel/replace an order while an auction is running, and then the order routes to an away market immediately after the auction.</p> <p>Pending Cancel Acks for Cancel/Replace are sent with the attributes of the new (replacement) order.</p>	Standard Pillar
73	Dark Series <i>#General</i> <i>#OrderHandling</i> <i>#Quoting</i>	N/A	N/A	N/A
74	Cancel-Replace Reject Logic <i>#OrderHandling</i>	<p>If a Cancel-replace Request gets rejected by the matching engine, the original order remains on the Book, and subsequent Cancel or Cancel-replace Requests can be sent for that order.</p>	<p>If the Cancel-replace Request gets rejected specifically due to market conditions by the matching engine, the message is rejected, and the original order will be cancelled from the Book.</p>	Standard Pillar
75	Customer Management Tool (CMT) & GEMS <i>#General</i>	<p><u>CMT supports the following:</u> View/Cancel orders Risk management & bulk cancel capabilities View trades</p> <p><u>GEMS supports the following:</u> View trades Post trade adjustments</p>	<p>CMT & GEMS are replaced by TOP (Trade Operations Portal).</p> <p><u>TOP supports the following:</u> View/Cancel orders Risk management & bulk cancel capabilities View trades Post trade adjustments</p>	Standard Pillar
76	Series Status in Options Status Message <i>#MarketData</i>	<p>The following Security Statuses are supported:</p> <ul style="list-style-type: none"> - L - Light up a dark series - N - Open a dark series - O - Open - X - Close - S - Halt - U - Unhalt - T - Unhalt a dark series - Q - End of RFQ auction 	<p>The following Security Statuses are supported:</p> <ul style="list-style-type: none"> - 4 - Trading Halt - 5 - Resume - 6 - Suspend <p>Market Session values:</p> <ul style="list-style-type: none"> - P - Preopening - B - Begin Accepting orders - O - Core session - X - Closed 	Standard Pillar

		<p>If this series is not halted at the time of a session change, the Halt Condition field = ~. If this series is halted on a session change, Halt Condition field = non-~, and the series remains halted into the new session.</p> <p>When a series is changed from halt to unhalt, there are 2 Option Status messages that go out with Series Status field set to 5 and O respectively. The first Option Status message will be published with "5", then the next status with "O".</p>		
77	<p>XDP Series Status Message Publication Sequence</p> <p><i>#MarketData</i></p>	When an underlying halts, series status messages are published first and the underlying status message at the end.	When an underlying halts, underlying status message is published after series status messages or in between series status messages.	Standard Pillar
78	<p>Removal of Online Extract</p> <p><i>#General</i></p>	<p>Users of firms that are subscribed for Online Extracts can view the reports via GEMS GUI.</p> <p>Users of firms that are subscribed for Batch Extracts can view the reports via GEMS GUI.</p>	<p>Real-time drop copy messages will capture post-trade adjustment performed in TOP.</p> <p>Firms can subscribe for and download EOD execution reports via MFT to capture final state of all trades.</p>	Standard Pillar
79	<p>Bulk Cancel</p> <p><i>#Gateways</i> <i>#MarketMaker</i> <i>#RiskControls</i></p>	<p>Bulk Cancel via CGW FIX and UGW Binary allows the bulk cancel of all orders only.</p> <p>Bulk Cancel "Takedown" via Market Maker Direct cancels quotes only.</p>	<p>Bulk cancel via a Pillar FIX or a Pillar Binary non-marker maker session cancels orders with the following CustomerOrFirm values: Customer, Firm, Broker, Away Market Maker, and Professional Customer only.</p> <p>Bulk cancel of orders and quotes can be combined by the same action for Market Maker sessions.</p>	Standard Pillar
80	<p>Bulk Cancel Order Exclusions</p> <p><i>#Gateways</i> <i>#RiskControls</i></p>	<p>The following orders are excluded from Bulk Cancel:</p> <ul style="list-style-type: none"> - GTC orders - GTX orders - AON orders - IOC orders including cross orders 	<p>Pillar excludes the following order types:</p> <ul style="list-style-type: none"> - GTC orders - IOC orders including cross orders 	Standard Pillar
81	<p>Bulk Cancel Filters for Non-Market Maker Sessions</p> <p><i>#Gateways</i> <i>#RiskControls</i></p>	Bulk Cancel via CGW FIX and UGW Binary allows the bulk cancel by TPID only.	<p>Bulk cancel via a Pillar FIX or a Pillar Binary non-marker maker session cancels supports the filters listed below. All criteria may be combined.</p> <ul style="list-style-type: none"> - Target MPID - Session (must be same as the session sending the Bulk Cancel Request) - Underlying Symbol - Options series (Binary Only) 	Standard Pillar

82	Bulk Cancel Processing for Non-Market Maker Sessions <i>#Gateways</i> <i>#RiskControls</i>	<p>UTP does not send an acknowledgment for bulk cancel requests. However, a UROUT is provided for each order cancelled.</p> <p>In the event that orders subject to cancellation have been routed to other exchange destinations, a cancel pending acknowledgment for each of the routed orders will be sent to the session from which the order originated.</p>	<p>Pillar sends an acknowledgment that the bulk cancel was accepted, and the orders have been removed from being executed followed by UROUTs for each order cancelled.</p> <p>For Bulk Cancel, no individual pending cancel messages will be sent for routed orders.</p> <p>Cancels sent from non-market maker sessions do not cancel orders or quotes designated with CustomerOrFirm = Market Maker.</p>	Standard Pillar
83	Bulk Cancel Filters for Market Maker Sessions <i>#Gateways</i> <i>#MarketMaker</i> <i>#RiskControls</i>	<p>Bulk Cancel "Takedown" via MMD allows cancelations of quotes for an MMID based on the following filters:</p> <ul style="list-style-type: none"> - Series - Underlying Symbol - Group by Underlying Symbol - All Underlying Symbols 	<p>Pillar Bulk Cancel message supports the filters listed below. All criteria may be combined.</p> <ul style="list-style-type: none"> - Target MPID - Session (must be same as the session sending the Bulk Cancel Request) - Underlying Symbol - Options series (Binary Only) <p>Additionally, for MMs (Binary only):</p> <ul style="list-style-type: none"> - MMID - User-defined GroupID - Orders/Quotes/Both 	Standard Pillar
84	Bulk Cancel User Defined Group <i>#Gateways</i> <i>#MarketMaker</i> <i>#Quoting</i> <i>#RiskControls</i>	N/A	<p>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.</p>	Standard Pillar
85	Bulk Cancel Processing for Market Maker Sessions <i>#Gateways</i> <i>#MarketMaker</i> <i>#RiskControls</i>	<p>Single Bulk Cancel "Takedown" acknowledgment is provided when all quotes for a filter have been cancelled.</p>	<p>Pillar sends an acknowledgment that the bulk cancel was accepted, and orders/quotes have been removed from being executed followed by UROUTs for each order. Quotes will not be issued UROUTs following a bulk cancel request.</p> <p>Bulk Cancel via a Pillar Binary Market Maker session cancels quotes and orders designated with CustomerOrFirm = Market Maker only.</p>	Standard Pillar

		<p>Bulk Cancel "Takedown" by Underlying Symbol and All Underlying symbols immediately Blocks new quote entry.</p> <p>Dedicated Cancel Session is available for Bulk Cancel "Takedown" by Underlying symbol and All underlying symbols.</p>	<p>Bulk Cancels have an option to Cancel and Block new quote entry. Quoting will be allowed following an Unblock request.</p> <p>Dedicated Cancel session are not explicitly supported; however, any Marker Maker session can be reserved to facilitate Bulk cancels only.</p>	
86	<p>Gapfill or Refresh Recovery</p> <p><i>#MarketData</i></p>	Options does not support a request based gapfill or snapshot refresh facility. Instead the system periodically publishes refresh messages directly in the XDP Market Data channel.	Pillar will support only client request based gapfill or refresh functionality, no periodic snapshots.	Standard Pillar
87	<p>Deep Market Data Message Publication</p> <p><i>#MarketData</i></p>	XDP Deep Market Data provides depth of book information for all single leg options symbols traded on the NYSE Options exchange for the top three levels.	<p>Pillar Deep Market Data provides a comprehensive order-by-order view of events for all single leg options symbols on the NYSE Options exchange. Pillar Deep Market Data include depth of book, RFQ, imbalances, and options status messages.</p> <p>See Pillar Options Deep Feed for message details.</p>	Standard Pillar
88	<p>Options Proprietary Market Data channelization</p> <p><i>#MarketData</i></p>	<ul style="list-style-type: none"> - XDP Deep Market Data: Alpha-based channelization - XDP Top Market Data: Alpha-based channelization - XDP Complex Market Data: Alpha-based channelization (1 single channel) 	<ul style="list-style-type: none"> - Pillar Deep Market Data : TXN-based channelization - Pillar Top Market Data (BBO): TXN-based channelization - Pillar Top Market Data (Trade/Summary/Imbalance): Single channel for all TXNs - Pillar Top Market Data (Summary): Single channel for all TXNs - Pillar Top Market Data (Imbalance): Single channel for all TXNs - Pillar Complex Market Data: TXN-based channelization 	Standard Pillar
89	<p>Sequence Numbers</p> <p><i>#MarketData</i></p>	A Stream ID, a Channel ID, and a sequence number taken together uniquely identify a message.	<p>There is no concept of stream and stream sequence number in Pillar. All the messages for a TXN will be sent over a channel and has a sequence number per message.</p> <p>Each message in a given channel is assigned a unique sequence number.</p> <p>Sequence numbers increase monotonically per channel and can be used to detect publication gaps.</p>	Standard Pillar
90	<p>New Fields in Single Leg Series Mapping Message</p> <p><i>#MarketData</i></p>	N/A	<p>Pillar Options new fields:</p> <ul style="list-style-type: none"> - Series Type - identifies series type - ClosingOnlyIndicator - identifies closing only type 	Standard Pillar

91	Series Index Mapping Service <i>#MarketData</i>	TCP-based symbol index mapping service.	Removed TCP symbol index request process and replaced with Pillar refresh request.	Standard Pillar
92	Test Request Message <i>#MarketData</i>	Test request message (msg 458) and Test request response message (msg 459) can be requested by the client during periods of inactivity.	Regular heartbeats provided on Pillar Market Data. Request message not offered.	Standard Pillar
93	Quote Condition <i>#MarketData</i> <i>#Quoting</i>	<ul style="list-style-type: none"> ▪ 1 – Regular Trading ▪ 2 – Rotation ▪ 3 – Trading Halted ▪ 4 – Pre-open ▪ 5 – Rotation, legal width quote pending 	<p>Removed Pre-open quote condition (4) and rotation message (5)</p> <ul style="list-style-type: none"> ▪ 1 – Regular Trading ▪ 2 – Rotation ▪ 3 – Trading Halted 	Standard Pillar
94	Symbol/Series Mapping File <i>#MarketData</i>	Legacy XDP Market Data file available via FTP at 6:00 am ET every trading day.	<p>Pillar Market Data file made available at 11.00 pm ET the day before every trading day.</p> <p>File format changes:</p> <ul style="list-style-type: none"> • Removed StreamID • Removed GroupID • Removed ComplexSymbol • Added CabinetPriceScaleCode SeriesType ClosingOnlyIndicator 	Standard Pillar
95	Pre-trade Risk Controls <i>#RiskControls</i>	<ul style="list-style-type: none"> - Single risk limit for orders with the same TPID. - Available in FIX only, configured by the Exchange upon client request. 	<ul style="list-style-type: none"> - Set different risk limits for different SubIDs under the same MPID. - SubID must be registered with the Exchange. - Configurable by client via TOP or Pillar Binary. <ul style="list-style-type: none"> o Single Order Max Quantity. o Single Order Max Notional Value. 	Standard Pillar

96	Activity-based Control Processing - Rolling Transaction/Volume/Percentage <i>#OrderHandling</i> <i>#Quoting</i> <i>#RiskControls</i>	<p>Limits are applied for Order Sending Firm and MM order activity aggregated together.</p> <p>Limits are applied for MM Quote activity separately.</p> <p>Limits are mandatory for MM Quotes but not for MM orders.</p> <p>A default limit is applied to all firms and all underlying symbols automatically.</p> <p>Min/max limit values are different for orders vs. quotes.</p> <p>Rolling Risk Time Window is 100ms, not client configurable.</p> <p>Breach Action is Cancel & Block, not client configurable. For a given limit, a single gateway ack/alert message is used to represent Cancel & Block.</p> <p>Breach of Rolling Transaction/Volume/Percentage and GRMP controls are triggered when calculation = the respective limit.</p> <p>Order cancellation excludes AON and GTX orders but includes Opening Only orders.</p>	<p>Limits are applied as follows:</p> <ul style="list-style-type: none"> • 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. <p>Limits are mandatory for both MM Quotes and MM 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 will be rejected</p> <p>There is no default limit. Firms 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.</p> <p>A single set of min/max values apply consistently for both orders and quotes.</p> <p>Rolling Risk Time Window is client configurable between 100,000 and 300,000,000 microseconds, in 1,000 microsecond increments (equivalent to 1 millisecond).</p> <p>Breach Action is client configurable, with choice of Cancel Non-Auction Orders & Block, Block Only, and Notifications Only. For a given limit, multiple gateway ack/alert messages are used to represent the component actions of notify, cancel, and block. For more details, see the "Risk Control Acknowledgment" and "Risk Control Alert" sections of the "NYSE Pillar Gateway Binary Protocol Specification."</p> <p>Breach of Rolling Transaction/Volume/Percentage and GRMP controls are triggered when calculation > the respective limit.</p> <p>If configured as "Cancel Non-Auction Orders & Block," order cancellation includes AON and GTX orders but excludes Opening Only orders.</p>	Standard Pillar
97	Risk Control Aggregation <i>#RiskControls</i>	<p>The following risk checks apply in aggregate across a firm identifier.</p> <ul style="list-style-type: none"> - Activity-based Global Risk Mitigation Protection (GRMP) - Kill Switch <p>During the Pillar migration period, they will apply separately to underlying symbols trading on UTP vs. Pillar.</p>	<p>The following risk checks apply in aggregate across a firm identifier.</p> <ul style="list-style-type: none"> - Activity-based Global Risk Mitigation Protection (GRMP) - Kill Switch <p>During the Pillar migration period, they will apply separately to underlying symbols trading on UTP vs. Pillar.</p>	Standard Pillar

<p>98 Arbitrage Check</p> <p>#RiskControls</p>	<p>A Market Maker quote reject results in an automated risk Breach Action of Cancel & Block across the MM's quotes in the underlying symbol. Open quotes are cancelled, and new quotes rejected.</p> <p><u>Buy Calls</u></p> <p>Rejects/cancels Buy Calls with Option Limit \geq Underlying Primary Market Last Sale after 9:30 AM + number of pennies.</p> <p>The number of pennies differs for orders vs. Market Maker Quotes:</p> <ul style="list-style-type: none"> • Orders - number of pennies = 500 • Market Maker Quotes - number of pennies = 0 <p>During pre-open/halt, applies the check to quotes immediately upon message arrival using the underlying symbol previous day closing price as the reference price, except for Buy Calls in series with a strike price less than 5% of the underlying previous day closing price for which no Arbitrage Check is applied. For orders, waits to apply the check until immediately prior to the opening/reopening using underlying last sale after 9:30 AM as the reference price.</p> <p><u>Buy Puts</u></p> <p>Rejects/cancels Buy Puts with Option Limit \geq Option Strike Price.</p>	<p>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.</p> <p><u>Buy Calls</u></p> <p>Rejects/cancels Buy Calls with Option Limit \geq Underlying Primary Market Last Sale after 9:30 AM + (Arbitrage Percentage x Underlying Primary Market Last Sale after 9:30 AM).</p> <p>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.</p> <table data-bbox="1518 535 1841 706"> <tr> <td>\$0 - \$5.00</td> <td>- 100%</td> </tr> <tr> <td>Above \$5.00 to \$7.50</td> <td>- 70%</td> </tr> <tr> <td>Above \$7.50 to \$10.00</td> <td>- 50%</td> </tr> <tr> <td>Above \$10.00 to \$20.00</td> <td>- 40%</td> </tr> <tr> <td>Above \$20.00 to \$50.00</td> <td>- 20%</td> </tr> <tr> <td>Above \$50.00</td> <td>- 10%</td> </tr> </table> <p>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 if opening/reopening on a trade or quote).</p> <p><u>Buy Puts</u></p> <p>Rejects/cancels Buy Puts with Option Limit \geq Option Strike Price.</p>	\$0 - \$5.00	- 100%	Above \$5.00 to \$7.50	- 70%	Above \$7.50 to \$10.00	- 50%	Above \$10.00 to \$20.00	- 40%	Above \$20.00 to \$50.00	- 20%	Above \$50.00	- 10%	<p>Standard Pillar</p>
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Above \$10.00 to \$20.00	- 40%														
Above \$20.00 to \$50.00	- 20%														
Above \$50.00	- 10%														

99	Intrinsic Value Check <i>#RiskControls</i>	Applies to orders but does NOT apply to Market Maker Quotes. A Market Maker order reject does NOT result in a risk breach. During pre-open/halt, applies the check immediately prior to the opening/reopening. <u>Sell Calls</u> Rejects/cancels Option Limit \leq (Underlying Primary Market Last Sale after 9:30 AM - Option Strike Price) x (100 - Intrinsic Percentage)/100. <u>Sell Puts</u> Rejects/cancels Option Limit \leq (Option Strike Price - Underlying Primary Market Last Sale after 9:30 AM) x (100 - Intrinsic Percentage)/100. The Intrinsic Percentage is determined based on the options series NBB: <table data-bbox="790 769 1104 824" style="margin-left: 100px;"> <tr> <td>\$0 - \$1.00</td> <td>- 100%</td> </tr> <tr> <td>Above \$1.00</td> <td>- 25%</td> </tr> </table>	\$0 - \$1.00	- 100%	Above \$1.00	- 25%	Applies to orders and Market Maker Quotes. 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). 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 if opening/reopening on a trade or quote). <u>Sell Calls</u> Rejects/cancels Option Limit \leq (Underlying Primary Market Last Sale after 9:30 AM - Option Strike Price) x (100 - Intrinsic Percentage)/100. <u>Sell Puts</u> Rejects/cancels Option Limit \leq (Option Strike Price - Underlying Primary Market Last Sale after 9:30 AM) x (100 - Intrinsic Percentage)/100. The Intrinsic Percentage is determined based on the following Intrinsic Reference Price: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> o Options series Auction Price. If none: o Options series Lower Auction Collar. If none: o Options series NBB <table data-bbox="1615 1003 1929 1175" style="margin-left: 100px;"> <tr> <td>\$0 - \$1.00</td> <td>- 100%</td> </tr> <tr> <td>Above \$1.00 to \$2.00</td> <td>- 50%</td> </tr> <tr> <td>Above \$2.00 to \$3.00</td> <td>- 40%</td> </tr> <tr> <td>Above \$3.00 to \$10.00</td> <td>- 25%</td> </tr> <tr> <td>Above \$10.00 to \$50.00</td> <td>- 20%</td> </tr> <tr> <td>Above \$50.00</td> <td>- 10%</td> </tr> </table>	\$0 - \$1.00	- 100%	Above \$1.00 to \$2.00	- 50%	Above \$2.00 to \$3.00	- 40%	Above \$3.00 to \$10.00	- 25%	Above \$10.00 to \$50.00	- 20%	Above \$50.00	- 10%	Standard Pillar
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Above \$50.00	- 10%																			
100	Limit Order Price Protection - Single Leg <i>#OrderHandling</i> <i>#Quoting</i> <i>#RiskControls</i>	Too Executable Check applies to Order Sending Firm orders and Market Maker orders while NBBO Check on Market Maker Quotes applies to quotes, with different price buckets and percentages/dollar amounts for each. During pre-open/halt, applies the check immediately prior to the opening/reopening.	Too Executable Check is replaced by Limit Order Price Protection. 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 if opening/reopening on a trade or quote).	Standard Pillar																

	<p><u>Buy Orders/Quotes:</u></p> <p>Rejects/cancels Option Limit \geq NBO + (Limit Order Price Protection Percentage or Dollar Amount x NBO)</p> <p><u>Sell Orders/Quotes:</u></p> <p>Rejects/cancels Option Limit \leq NBB - (Limit Order Price Protection Percentage or Dollar Amount x NBB)</p> <p>The Limit Order Price Protection Percentage or Dollar Amount is determined based on the contra-side NBBO:</p> <table data-bbox="672 503 1384 649"> <tr> <td>\$0 - \$1.00</td> <td>- 100% for orders; \$1.00 for Market Maker Quotes on Buy Side, and no check for Market Maker Quotes on Sell Side</td> </tr> <tr> <td>Above \$1.00</td> <td>- 50% for orders and Market Maker Quotes</td> </tr> </table>	\$0 - \$1.00	- 100% for orders; \$1.00 for Market Maker Quotes on Buy Side, and no check for Market Maker Quotes on Sell Side	Above \$1.00	- 50% for orders and Market Maker Quotes	<p><u>Buy Orders/Quotes:</u></p> <p>Rejects/cancels Option Limit \geq Limit Order Price Protection Reference Price + (Limit Order Price Protection Percentage x Limit Order Price Protection Reference Price)</p> <p><u>Sell Orders/Quotes:</u></p> <p>Rejects/cancels Option Limit \leq Limit Order Price Protection Reference Price - (Limit Order Price Protection Percentage x Limit Order Price Protection Reference Price)</p> <p>The Limit Order Price Protection Percentage is determined based on the following Limit Order Price Protection Reference Price:</p> <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> o Auction Price. If none: o Contra side Auction Collar. If none: o Contra side NBBO <table data-bbox="1612 771 1948 950"> <tr> <td>\$0 - \$1.00</td> <td>- \$0.30</td> </tr> <tr> <td>Above \$1.00 to \$10.00</td> <td>- 50%</td> </tr> <tr> <td>Above \$10.00 to \$20.00</td> <td>- 40%</td> </tr> <tr> <td>Above \$20.00 to \$50.00</td> <td>- 30%</td> </tr> <tr> <td>Above \$50.00 to \$100.00</td> <td>- 20%</td> </tr> <tr> <td>Above \$100.00</td> <td>- 10%</td> </tr> </table>	\$0 - \$1.00	- \$0.30	Above \$1.00 to \$10.00	- 50%	Above \$10.00 to \$20.00	- 40%	Above \$20.00 to \$50.00	- 30%	Above \$50.00 to \$100.00	- 20%	Above \$100.00	- 10%	
\$0 - \$1.00	- 100% for orders; \$1.00 for Market Maker Quotes on Buy Side, and no check for Market Maker Quotes on Sell Side																		
Above \$1.00	- 50% for orders and Market Maker Quotes																		
\$0 - \$1.00	- \$0.30																		
Above \$1.00 to \$10.00	- 50%																		
Above \$10.00 to \$20.00	- 40%																		
Above \$20.00 to \$50.00	- 30%																		
Above \$50.00 to \$100.00	- 20%																		
Above \$100.00	- 10%																		
<p>101 Setter Priority</p> <p><i>#General</i></p>	<p>N/A</p>	<p>Order acknowledgment identifies when an order is a candidate for setting or joining the NBBO.</p> <p>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.</p>	<p>Standard Pillar - provided that Setter Priority may be used only for purposes of determining eligibility for transaction fee pricing incentive programs.</p>																

102	Billing Code Support <i>#General</i>	N/A	<p>During the Pillar Migration, participants should expect 3 invoices for the month of November one with symbols that were on UTP and two for the migrated symbols on Pillar. These two invoices will be broken down with one invoice at the Firm level and the second at the MPID level. All tiering and aggregation will be handled throughout the month of the migration.</p> <p>After the migration, participants would expect to receive two invoices per month, one at the firm level and the second at the MPID level.</p>	Standard Pillar
103	Customer Outputs <i>#General</i>	N/A	<p>During the Pillar Migration, participants should expect 2 sets of reports during the migration. One in the current form for UTP and the second set of reports from Pillar. The Pillar reports will be accessible between the TOP interface and/or MFT. The tiering reports during the month of the migration will be handled and a weekly email will be provided that will aggregate across the two systems.</p>	Standard Pillar
104	Supported Complex Order Types <i>#Complex</i> <i>#OrderHandling</i>	<p>Order types supported in UTP.</p> <p>Limit Orders</p> <ul style="list-style-type: none"> • Limit DAY • Limit GTC • Limit IOC <p>PNP+ orders</p> <ul style="list-style-type: none"> • Limit DAY PNP+ • Limit GTC PNP+ • Limit IOC PNP+ <p>Complex Order Auction orders</p> <ul style="list-style-type: none"> • Limit DAY COA • Limit GTC COA • Limit IOC COA • Limit DAY PNP+ COA • Limit GTC PNP+ COA • Limit IOC PNP+ COA <p>Complex Order Auction Response Only orders</p> <ul style="list-style-type: none"> • Limit GTX 	<p>Order types in bold are newly introduced in Pillar.</p> <p>Limit Orders</p> <ul style="list-style-type: none"> • Limit DAY • Limit GTC • Limit IOC <p>Complex Only orders (formerly known as PNP+)</p> <ul style="list-style-type: none"> • Limit DAY Complex Only • Limit GTC Complex Only • Limit IOC Complex Only • Limit FOK Complex Only <p>Complex Order Auction orders</p> <ul style="list-style-type: none"> • Limit DAY COA • Limit GTC COA • Limit IOC COA • Limit DAY COA Complex Only • Limit GTC COA Complex Only • Limit IOC COA Complex Only <p>Complex Order Auction Response Only orders</p> <ul style="list-style-type: none"> • Limit GTX 	Standard Pillar

	<p>Cross Orders</p> <ul style="list-style-type: none"> • QCC 	<p>Cross Orders</p> <ul style="list-style-type: none"> • QCC <p>For more information, refer to the Order Attribute Matrices: Pillar Options FIX Order Validation Matrix Pillar Options Binary Order Validation Matrix</p>	
<p>105</p> <p>Complex FOK Orders</p> <p><i>#Complex</i> <i>#OrderHandling</i></p>	N/A	<p>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 (see row 106 for more details), 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'.</p> <p>Accepted during the Core Trading session only; Rejected before the Open and during a Halt.</p> <p>Only Limit FOK Complex Only order type is supported</p>	Standard Pillar
<p>106</p> <p>Complex Only Orders</p> <p><i>#Complex</i> <i>#OrderHandling</i></p>	<p>PNP+ Complex Orders are allowed to trade on the derived best bid or offer when the derived best bid or offer cannot satisfy the ratio.</p> <p>If there is enough ratio to satisfy the PNP+ order, then the PNP+ order will reprice \$0.01 x the smallest leg ratio inside the contra side derived best bid or offer.</p> <p>PNP+ orders continue to reprice and trading priority gets re-evaluated as market conditions allow until they are filled or cancelled.</p>	<p>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.</p> <p>If there is Customer interest on all the leg markets, then the Complex Only order will trade up to \$0.01 x the smallest leg ratio inside the side of the derived best bid or offer containing the Customer interest.</p> <p>Complex Only orders will trade at permissible prices as outlined above, but their trading priority will not be modified.</p> <p>The above processing also applies to all Non-standard Complex Series</p>	Standard Pillar

107	Complex Series Alignment <i>#Complex</i> <i>#MarketData</i> <i>#OrderHandling</i>	<p>A complex series is defined from the perspective of the seller (i.e. Sell aligned).</p> <p>When creating a complex series, UTP arranges the component legs in a sequence to align incoming Complex Orders to the correct side of the market (Buy or Sell). The component legs are sequenced according to the following rules:</p> <ul style="list-style-type: none"> • Earliest expiration date to latest expiration date; • Within the same expiration, lowest strike price to highest strike price; • Within the same strike price, Calls before Puts. <p>After sequencing the component legs of the Complex Order or the UGW Binary complex series request, the complex series is disseminated over XDP Complex Market Data. Using the first component leg, if the leg is a Sell, then the complex series is created and defined according to the rules above. If the first leg is a Buy, then the side of all component legs are reversed and defined in XDP Complex Market Data to the rules above.</p>	<p>A complex series is defined from the perspective of the buyer (i.e. Buy aligned).</p> <p>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.</p> <p>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.</p>	Standard Pillar
108	Complex Series Supported Number of Legs <i>#Complex</i> <i>#OrderHandling</i>	Complex series support a total of 5 option component legs.	<p>Complex series support a total of 12 option component legs.</p> <p>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 to complex trading only.</p>	Standard Pillar
109	Non-standard Complex Series <i>#Complex</i> <i>#OrderHandling</i>	<p>Complex Orders and complex series requests are rejected when submitted with the following component leg criteria:</p> <ul style="list-style-type: none"> • Composed of two legs that are both Buys or both Sells and both legs are Calls or both legs are Puts. • Composed of three or more legs and all legs are Buys or all legs are Sells. 	<p>Complex Orders and complex series requests are accepted and restricted to complex to Complex Only trading when submitted with the following component leg criteria:</p> <ul style="list-style-type: none"> • Composed of two legs that are both Buys or both Sells and both legs are Calls or both legs are Puts. • Composed of three or more legs and all legs are Buys or all legs are Sells. 	Standard Pillar

110	Complex Net Pricing <i>#Complex</i> <i>#MarketData</i> <i>#OrderHandling</i>	<u>CGW FIX and UGW Binary</u> <ul style="list-style-type: none"> • Net Debit price - identified with a negative value indicates that the sender is intending to pay. • Net Credit price - identified without a sign indicates that the sender is requesting to receive payment. <p>The component legs to be bought and sold are not determined by the debit or credit price entered on the order. The debit or credit price of the order is not impacted by the side of the complex series order book for which the order ends up on.</p> <p>The price represented in the XDP Complex Market Data is exactly as defined on the Complex Order.</p>	<u>Pillar FIX</u> <ul style="list-style-type: none"> • 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. <u>Pillar Binary</u> <ul style="list-style-type: none"> • Buyer <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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. <p>The order is posted to Pillar Complex Market Data with the price as identified on the Pillar Binary Complex Orders.</p>	Standard Pillar
111	Complex BBO <i>#Complex</i> <i>#MarketData</i> <i>#OrderHandling</i>	Marketable Complex Orders that cannot execute against the derived best bid or offer are displayed to the XDP Complex Market Data at the contra side derived best bid or offer. <ul style="list-style-type: none"> • Marketable PNP+ orders are displayed where they are allowed to trade either at the contra side derived best or offer or \$0.01 x the smallest leg ratio inside the contra side derived best bid or offer. 	Marketable Complex Orders including Complex Only orders are displayed to Pillar Complex Market Data at their Limit prices (Complex BBO can be locked/crossed), however they only execute at permissible prices.	Standard Pillar

<p>112 Complex FIX Messaging Changes</p> <p><i>#Complex</i> <i>#Gateways</i> <i>#OrderHandling</i></p>	<p>Complex Order, Cancel and Cancel Replace messages require both symbol and side on the messages.</p> <p>Acknowledgment messages reported are:</p> <ul style="list-style-type: none"> • 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 Only • UROUT for each leg only • Cancel reject for Complex Only • Fills for each leg only <p>Component leg acknowledgments are sequenced ahead of the complex acknowledgment.</p> <p>OrderID is the same for all complex and leg level acks; however, leg fills have a different order ID.</p> <p>SecurityType is MLEG for all complex messages and OPT for all leg level messages.</p>	<p>Complex Order, Cancel and Cancel Replace messages are rejected when symbol or side is provided on the messages.</p> <p>Acknowledgment messages reported are:</p> <ul style="list-style-type: none"> • 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 <p>Complex acknowledgment is sequenced ahead of the component leg acknowledgments.</p> <p>OrderID is the same for complex and leg level messages.</p> <p>SecurityType is MLEG for all complex and leg level messages.</p>	<p>Standard Pillar</p>
<p>113 Complex Binary Message Changes</p> <p><i>#Complex</i> <i>#Gateways</i> <i>#OrderHandling</i></p>	<p>Complex Orders and cancel replaces can be sent using either the Complex Series ID or by defining each leg in the order and cancel replace message.</p> <p>Acknowledgment messages reported are:</p> <ul style="list-style-type: none"> • 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 Only • UROUT for each leg only • Cancel reject for Complex Only • Fills and Busts/Corrections for each leg only <p>Component leg acknowledgments are sequenced ahead of the complex acknowledgment.</p> <p>OrderID is the same for all complex and leg level acks; however, leg fills have a different order ID.</p>	<p>Complex Orders and cancel replaces can only be sent using the Complex Series ID.</p> <p>Acknowledgment messages reported are:</p> <ul style="list-style-type: none"> • 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 <p>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.</p> <p>OrderID is the same for complex and leg level messages.</p>	<p>Standard Pillar</p>

	<p>SecurityType is MLEG for all complex messages and OPT for all leg level messages.</p> <p>Complex series request messages require that each component leg be defined with the exact terms of the option legs to be traded.</p>	<p>SecurityType is MLEG for all complex and leg level messages.</p> <p>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.</p>	
<p>114 Limit Order Price Protection - Complex</p> <p><i>#Complex</i> <i>#OrderHandling</i> <i>#RiskControls</i></p>	<p>Complex Orders are automatically rejected during Core Trading or at the time of the opening or reopening of the complex series, if the sum of the following is less than zero (\$0.00):</p> <ul style="list-style-type: none"> the net debit (credit) Limit price of the order, the contra-side Complex NBB0 for that same Complex Order, and an amount specified by the Exchange ("Specified Amount"). <p>The Specified Amounts are:</p> <ul style="list-style-type: none"> .10 for orders where the smallest MPV of any component leg is .01 .15 for orders where the smallest MPV of any component leg is .05 .30 for orders where the smallest MPV of any component leg is .10 <p>The Specified Amount may be adjusted based on the ratios and the MPVs of the component legs of the Complex Order.</p> <ul style="list-style-type: none"> For Complex Orders that are entered on a 1x1 ratio, the Specified Amount is not adjusted. For Complex Orders that are entered on an uneven ratio (2x3 for example) where the MPV on all component legs are the same, the Specified Amount is adjusted by multiplying the ratio represented by the smallest leg of the order by the Specified Amount (i.e., .20 is the adjusted Specified Amount for a 2x3 Complex Order with an MPV of .01 on both legs because .20 (2 x .10) is less than .30 (3 x .10) for example). For Complex Orders that are entered on an uneven ratio where the MPV of the component legs are not the same (a two-legged order with a 2x3 ratio where the first leg has a .10 MPV and the second leg has a .05 MPV for example), the Specified Amount is equal to the smallest amount calculated by multiplying each component leg of the order, the Specified Amount for the leg of the order by the ratio represented by that leg of the order (i.e., .45 is the adjusted Specified Amount in this example because .45 (3 x .15) is less than .60 (2 x .30). 	<p>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 will be validated before going into Core Trading.</p> <p>A Complex Order is rejected/cancelled if the following criteria is met:</p> <ul style="list-style-type: none"> 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 	<p>Standard Pillar</p>

<p>115 Complex Series Protections</p> <p><i>#Complex</i> <i>#OrderHandling</i> <i>#RiskControls</i></p>	<p>Complex Orders are rejected when any of the following criteria is met:</p> <ul style="list-style-type: none"> • Complex Order where all component legs are to Sell (Buy) if it is entered at a price that is less (more) than the minimum (maximum) price, which is calculated as the sum of the ratio on each leg of the Complex Order multiplied by \$0.01 (-\$0.01) per leg. • Vertical spread order when entered with a price less than \$0.00. • Calendar spread order when entered with a price less than \$0.00. 	<p>Complex Orders are rejected when any of the follow criteria is met:</p> <ul style="list-style-type: none"> • 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 order will be rejected as follows: <ul style="list-style-type: none"> ○ Buying a lower (higher) strike call and selling a higher (lower) strike call and the sender would receive (pay) a net premium. ○ Buying a higher (lower) strike put and selling a lower (higher) strike put and the sender would receive (pay) a net premium. • Calendar spread order will be rejected as follows: <ul style="list-style-type: none"> ○ 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. ○ 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. 	<p>Standard Pillar</p>
<p>116 Complex Series Limit</p> <p><i>#Complex</i> <i>#OrderHandling</i> <i>#RiskControls</i></p>	<p>The number of Complex Orders a firm is allowed to send over the course of the trading day is tracked.</p> <p>A firm is disabled from sending new Complex Orders when it breaches 40% of the overall Complex Orders accepted over the course of the day for all firms. Trade support staff can re-enable the firm upon request.</p> <p>If a firm breaches 60% of the overall Complex Orders accepted for the trading day, the firm is disabled for the rest of the trading day.</p>	<p>A limit is imposed on the maximum number of new complex series created per MPID over the course of the trading day.</p> <p>When an MPID exceeds the limit of new complex series created, Pillar will reject all subsequent new complex series from that MPID for the balance of the trading day. Trade support staff cannot re-enable the firm.</p> <p>The complex series count is increased for each series created, regardless of whether or not the firm subsequently enters orders for the series.</p>	<p>Standard Pillar</p>
<p>117 Complex Trading & Pricing</p> <p><i>#Complex</i> <i>#OrderHandling</i></p>	<p>Complex orders can trade with other complex orders when a component leg price is zero or is locked/crossed, as long as no leg trade price is zero. Trading with the leg market is also permitted.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	<p>Standard Pillar</p>

118	Complex Opening/Reopening Collars <i>#Auctions</i> <i>#Complex</i> <i>#OrderHandling</i>	<p>Opening/reopening auction collar boundaries for complex series are restricted by the Complex NBBO when better than the derived best bid or offer.</p> <p>If the derived best bid or offer is equal to the Complex NBBO and the ratio of the Complex Orders can be satisfied by the leg markets, the Complex auction collar boundaries are .01 x smallest leg ratio inside than the derived best bid or offer.</p>	<p>Opening/reopening Auction collar boundaries for complex series are restricted by the derived best bid or offer.</p> <p>If there is Customer interest on all the leg markets, the auction collar boundaries are \$0.01 x smallest leg ratio inside the side of the derived best bid or offer containing the Customer interest.</p>	Standard Pillar
119	Complex Opening/Reopening Market Data <i>#Auctions</i> <i>#Complex</i> <i>#MarketData</i> <i>#Quoting</i>	<p>A Rotation Quote is published via XDP Complex Market Data prior to opening a complex series.</p>	<p>A Rotation Quote is not published via Pillar Complex Market Data prior to opening a complex series.</p>	Standard Pillar
120	Complex Order Auctions (COA) <i>#Auctions</i> <i>#Complex</i> <i>#MarketData</i> <i>#OrderHandling</i>	<p>COA designated orders auction upon receipt or when eligible while resting on the order book.</p> <p>In order to auction a COA order must be priced within \$10 from the opposite side Derived BBO.</p> <p>COA orders are accepted in pre-open and during a Halt and are handled as standard Complex Limit orders.</p> <p>COA orders trade versus resting complex orders priced \$0.01 x the smallest leg ratio inside the Derived BBO, before starting an auction.</p> <p>COA RFQs do not provide an RFQ price or Auction ID over XDP Complex Market Data.</p> <p>COA auctions have a maximum run time of 1 second.</p> <p>Auction responses (except IOC and GTX) are published to XDP Complex Market Data at the conclusion of the COA auction.</p> <p>COA auctions trade following the Exchange pro-rata allocation algorithm.</p> <p>At the conclusion of a COA auction, a series status is provided to identify that a COA has concluded followed by the trades of the COA auction.</p> <p>COA auctions end early with trades when a Trading Halt is issued.</p> <p>Self-Trade support is not available for COA auctions.</p>	<p>COA designated orders auction upon receipt.</p> <p>In order to auction, a COA order must be priced at least halfway through the Derived BBO.</p> <p>COA orders are rejected if received in pre-open and during a Halt. Carryover COA GTC orders are handled as Complex Limit orders.</p> <p>COA orders will trade vs resting complex orders priced up to and including the Derived BBO, unless there is Customer interest on all the leg markets, in which case, the COA will trade up to \$0.01 x the smallest leg ratio inside the Derived BBO, before starting an auction.</p> <p>COA RFQs provide an RFQ price and Auction ID over Pillar Complex Market Data.</p> <p>COA auctions have a maximum run time of 100 milliseconds.</p> <p>Auction responses (except IOC and GTX) are published to Pillar Complex Market Data at the time of receipt.</p> <p>COA auctions trade following the Exchange price time allocation algorithm.</p> <p>At the conclusion of a COA auction, the trades of the COA auction are provided followed by an RFQ to identify that a COA has concluded.</p> <p>COA auctions will end early without trades when a Trading Halt is issued.</p> <p>Self-Trade will be enforced during COA auctions.</p>	Standard Pillar

	<p>GTX orders trade versus a COA order first, then any balance remaining is eligible to trade with resting interest before the balance is cancelled.</p> <p>GTX orders that are not executable with the RFQ price are accepted and at the end of the COA auction trade with resting interest before the balance is cancelled.</p>	<p>GTX orders only trade versus a COA order; any GTX order balance remaining is cancelled at the conclusion of the auction.</p> <p>GTX orders that are not executable with the RFQ price will be rejected.</p>	
<p>121 Bulk Cancel Filters for Complex Orders</p> <p><i>#Complex</i> <i>#Gateways</i> <i>#RiskControls</i></p>	<p>UTP Bulk cancels automatically include both single leg and Complex Orders that fit the bulk cancel criteria.</p>	<p>Pillar Bulk cancels allow for specifying the cancellation of single leg orders only, Complex Orders only or both single leg and Complex Orders.</p>	<p>Standard Pillar</p>

Document Version History

Date	Document Version #	Change Summary
July 22, 2022	2.4	Updates made to the following cells (updates are in light blue font throughout the document): <ul style="list-style-type: none"> - Row 17 <i>Bulk Quote Support</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 18 <i>Bulk Quote Rejects/Cancel</i>s, column <i>Standard Pillar</i>
April 8, 2022	2.3	Updates made to the following cells: <ul style="list-style-type: none"> - Row 27 <i>Done for Day Messages</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 37 <i>Market Maker Quote Dependency for Opening/Reopening</i>, column <i>Standard Pillar</i> - Row 73 <i>Dark Series</i>, column <i>NYSE Options UTP</i> - Row 96 <i>Activity-based Control Processing - Rolling Transaction/Volume/Percentage</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 106 <i>Complex Only Orders</i>, column <i>Standard Pillar</i> - Row 116 <i>Complex Series Limit</i>, column <i>Standard Pillar</i> - Row 117 <i>Complex Trading & Pricing</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 120 <i>Complex Order Auctions (COA)</i>, column <i>Standard Pillar</i>
November 26, 2021	2.2	Updates made to the following cells: <ul style="list-style-type: none"> - Row 33 <i>Working Price on Acks</i>, column <i>Standard Pillar</i> - Row 38 <i>Legal Width for Auction Collars</i>, column <i>Standard Pillar</i> - Row 63 <i>Electronic Support Cabinet Orders</i>, column <i>Standard Pillar</i> - Row 71 <i>Cancel and Cancel-Replace Handling / Elimination of Cancel Request to Reduce Order Qty</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 85 <i>Bulk Cancel Processing for Market Maker Sessions</i>, column <i>Standard Pillar</i> - Row 104 <i>Supported Complex Order Types</i>, column <i>Standard Pillar</i> - Row 105 <i>Complex FOK Orders</i>, column <i>Standard Pillar</i> - Row 116 <i>Complex Series Limit</i>, column <i>Standard Pillar</i> - Row 120 <i>Complex Order Auctions (COA)</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i>
September 24, 2021	2.1	Updates made to the following cells: <ul style="list-style-type: none"> - Row 96 <i>Activity-based Control Processing - Rolling Transaction/Volume/Percentage</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i> - Row 67 <i>New Order Modifiers - Proactive Trade Non-display (Non-Display Remove)</i> - Row 96 <i>Activity-based Control Processing - Rolling Transaction/Volume/Percentage</i>, columns <i>NYSE Options UTP</i> and <i>Standard Pillar</i>

August 2, 2021	2.0	<p>Functional differences detail related to Complex Options added.</p> <p>Support for Electronic Cabinet orders removed.</p> <p>Updates made to the following cells:</p> <ul style="list-style-type: none"> - Row 12 <i>Clearing firm and CMTA Support</i>, column <i>Standard Pillar</i> - Row 31 <i>Max Price</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 32 <i>Min Price</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 33 <i>Working Price on Acks</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 98 <i>Arbitrage Check</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 99 <i>Intrinsic Value Check</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 100 <i>Limit Order Price Protection - Single Leg</i>, columns <i>NYSE Options UTP and Standard Pillar</i>
June 8, 2021	1.1	<p>Updates made to the following cells:</p> <ul style="list-style-type: none"> - Row 17 <i>Bulk Quote Support</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 38 <i>Legal Width for Auction Collars</i>, column <i>Standard Pillar</i> - Row 51 <i>Trading Collars</i>, column <i>Standard Pillar</i> - Row 54 <i>Market Orders</i>, column <i>Standard Pillar</i> - Row 56 <i>Add Liquidity Only (ALO) Orders</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 58 <i>Post no Preference (PNP) Order/Non-Routable Limit Orders</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 77 <i>XDP Series Status message publication sequence</i> - New row added - Row 96 <i>Activity-based Control Processing - Rolling Transaction/Volume/Percentage</i>, columns <i>NYSE Options UTP and Standard Pillar</i> - Row 101 <i>Setter Priority</i>, column <i>NYSE Arca Option</i>
March 31, 2021	1.0	Initial version