PHLX XL SYSTEM SETTINGS

OPENING

- **Open Delay** – 30 seconds - A delay imposed if at least two XL participants or the specialist have not submitted quotes and the market for the underlying has an opening trade or quote. *Rule 1017(k)*

- **Quality Opening Market Differentials Table** – The table of values defined as an acceptable bid/ask differential in order to establish a "quality opening market." *Rule 1017 (l)(iii)(A)*

Non-Penny Issues:

Price low end of range	Price high end of range	Maximum bid/ask differential
$0.00	$1.00	$0.15
$1.01	$2.00	$0.22
$2.01	$3.00	$0.30
$3.01	$5.00	$0.45
$5.01	$7.00	$0.60
$7.01	$10.00	$0.75
$10.01	$20.00	$0.90
$20.01	$30.00	$1.20
$30.01	$40.00	$1.50
$40.01	40.01+	$2.25

Standard Penny Issues (excluding SPY/IWM/QQQQ):

Price low end of range	Price high end of range	Maximum bid/ask differential
$0.00	$1.00	$0.10
$1.01	$2.00	$0.14
$2.01	$3.00	$0.18
$3.01	$5.00	$0.40
$5.01	$7.00	$0.50
$7.01	$10.00	$0.60
$10.01	$15.00	$1.00
$15.01	$20.00	$1.20
$20.01	$30.00	$1.60
$30.01	$40.00	$2.00
$40.01	$40.01+	$3.00

Special Penny Issues (SPY/IWM/QQQQ)

Price low end of range	Price high end of range	Maximum bid/ask differential
$0.00	$0.40	$0.06
$0.41	$1.00	$0.10
$1.01	$2.00	$0.12
$2.01	$3.00	$0.14
$3.01	$5.00	$0.18
$5.01	$7.00	$0.24
$7.01	$10.00	$0.40
$10.01	$15.00	$0.60
$15.01	$20.00	$0.80
$20.01	$30.00	$1.00
$30.01	$40.00	$1.20
$40.01	$40.01+	$1.60

- **Imbalance Timer** – 1 second – Amount of time the XL system may wait before opening an option with an imbalance after broadcasting an Imbalance Message. *Rule 1017(l)(iv)(A)*

- **Opening Quote Range Table** – The table of values added to the offer and subtracted from the bid to establish PHLX's maximum Opening Quote Range. *Rule 1017(l)(iii)(A)*

Non-Penny Issues:

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
$0.00	$1.00	$0.10	1.5X
$1.01	$2.00	$0.15	1.5X
$2.01	$3.00	$0.20	1.5X
$3.01	$5.00	$0.30	1.5X
$5.01	$7.00	$0.40	1.5X
$7.01	$10.00	$0.50	1.5X
$10.01	$20.00	$0.60	1.5X
$20.01	$30.00	$0.80	1.5X
$30.01	$40.00	$1.00	1.5X
$40.01	+	$1.50	1.5X

Standard Penny Issues (excluding SPY/IWM/QQQQ):

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
$0.00	$1.00	$0.05	2.0X
$1.01	$2.00	$0.05	2.0X
$2.01	$3.00	$0.07	2.0X
$3.01	$5.00	$0.10	2.0X
$5.01	$7.00	$0.15	2.0X
$7.01	$10.00	$0.20	2.0X

$10.01	$15.00	$0.30	1.5X
$15.01	$20.00	$0.40	1.5X
$20.01	$30.00	$0.60	1.5X
$30.01	$40.00	$0.80	1.5X
$40.01	+	$1.00	1.5X

Special Penny Issues (SPY/IWM/QQQQ)

Price low end of range	Price high end of range	Acceptable range (highest bid – X or lowest ask + X)	Range Multiplier for options that expire >9 months away
$0.00	$0.40	$0.03	2.0X
$0.41	$1.00	$0.05	2.0X
$1.01	$2.00	$0.06	2.0X
$2.01	$3.00	$0.07	2.0X
$3.01	$5.00	$0.09	2.0X
$5.01	$7.00	$0.12	2.0X
$7.01	$10.00	$0.20	2.0X
$10.01	$15.00	$0.30	1.5X
$15.01	$20.00	$0.40	1.5X
$20.01	$30.00	$0.50	1.5X
$30.01	$40.00	$0.60	1.5X
$40.01	+	$0.80	1.5X

- **Number of Imbalance Process Iterations Before an Opening with an Imbalance –** 3 iterations - Number of times the system will repeat the imbalance process before opening with a remaining imbalance. *Rule 1017(l)(iv)(C)(6)*

- **Duration to Display Orders in the PHLX Quote Before Cancelling Them Back to the Firm** – 0 seconds - Amount of time unexecuted contracts from the imbalance, which were not traded or routed, will be displayed in the PHLX quote at the opening price prior to being cancelled back to the entering participant. *Rule 1017(l)(iv)(C)(7)*

ROUTING

- **Route Timer** – 200 milliseconds - Amount of time the system will allow XL participants and other market participants to interact with a FIND or SRCH order before the order is routed to an away market during an opening or during normal trading. *Rule 1017(l)(ii)(C), Rule 1080(m)(iv)(B) and (C)*

QUOTE EXHAUST

- **Quote Exhaust Timer** – 200 milliseconds - Amount of time after a quote has been exhausted during which any XL participant may submit quotes, sweeps or orders to allow possible price improvement before PHLX trades at the next available price. *Rule 1082(a)(ii)(B)(3)(a)*

- **Acceptable Range Table** – The table of values added or subtracted from the reference price to establish PHLX's Acceptable Range for executions of remaining contracts from an initiating quote or order. *Rule 1082(a)(ii)(B)(3)(f)*

Acceptable Range Table (excluding NDX and RUT)

Reference Price = or > than	Reference Price = or < than	Acceptable range (RP – X or RP + X)	Range Multiplier for options that expire > 9 months away
$0.00	$1.00	$0.05	2X
$1.01	$3.00	$0.10	2X
$3.01	$5.00	$0.20	2X
$5.01	$10.00	$0.30	2X
$10.01	$20.00	$0.50	2X
$20.01	$40.00	$0.70	2X
$40.01	+	$0.90	2X

Acceptable Range Table (NDX and RUT)

Reference Price = or > than	Reference Price = or < than	Acceptable range (RP – X or RP + X)	Range Multiplier for options that expire > 9 months away
$0.00	$2.00	$0.75	2X
$2.01	$5.00	$1.00	2X
$5.01	$10.00	$1.50	2X
$10.01	$20.00	$3.00	2X
$20.01	$40.00	$6.00	2X
$40.01	$80.00	$12.00	2X
$80.01	$200.00	$18.00	2X
$200.01	+	$22.00	2X

- **Duration to Display Orders After Quote Exhaust Resolution Before Cancelling Them Back to the Firm** – 500 milliseconds - Amount of time unexecuted contracts from quote exhaust resolution will be displayed in the Exchange quote at the Acceptable Range price prior to being cancelled back to the entering participant. *Rule 1082(a)(ii)(B)(3)(g)(iv)(A)(3)*

COMPLEX

Complex Live Auction Duration – 1 second – Amount of time participants have to submit interest responding to a complex auction notification. Rule 1080 Commentary .08(e)(iii).

Acceptable Complex Execution Parameter (ACE) – 5 % - A price range, based on the cNBBO, outside of which a Complex Order will not be executed. Rule 1080 Commentary .08(i).

Strategy Price Protection (SPP) - $0.02 – Acceptable range for Vertical Spreads to trade below zero or above the difference in the strikes; Acceptable range for Time Spreads to trade below zero.

For more information, contact your firm's Transaction Services U.S. Market Sales representative or **sales@nasdaqomx.com**.