



INVESTORS EXCHANGE TICK PILOT FAQ

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TICK PILOT OVERVIEW

What is the Tick Pilot?

On May 6, 2015 the SEC approved the Tick Size Pilot Plan (“Tick Pilot”) under Regulation NMS. The Tick Pilot is a two-year program beginning in October 2016 that will widen the minimum quoting and trading increments – tick sizes – from \$.01 to \$.05 for certain small capitalization securities.

In addition to new quoting and trading restrictions, the Tick Pilot also requires FINRA and the exchanges (collectively, “SROs”) to collect data on various market quality metrics. Data collected by ATS operators and market makers will be reported to each firm’s respective DEA, while SROs and FINRA report data directly to the SEC. Please see the [Tick Size Pilot Program Approval Order](#) for a complete description of the trading and quoting rules and applicable exceptions for each Test Group.

What is trade-at?

Generally, “trade-at” prohibits a trading venue from executing orders in the subset of securities in Test Group 3 at the same price as a protected quote, subject to certain specified exceptions (described below).

What are the Test Groups?

The Pilot will apply changes to trading conventions in three Test Groups of stocks (400 symbols in each group), as follows:

1. In **Test Group 1**, quotes and order limits will have to be expressed in \$.05 increments, but orders may be executed at any currently permissible increment.
2. In **Test Group 2**, minimum quote, order limit, and trade increments will change to \$.05, with trading exceptions for:
 - i. Midpoint executions,
 - ii. Retail executions with price improvement of at least \$.005, and
 - iii. Negotiated trades.
 - Negotiated trades are detailed in footnote #35 of the [Tick Pilot Approval Order](#).
3. In **Test Group 3**, the same requirements and trading exceptions apply as in Test Group 2, with the addition of a “trade-at” restriction that preferences displayed liquidity on exchanges by prohibiting a trading center from executing orders in Test Group 3 securities at the same price as a protected quotation. The trade-at restriction has various exceptions. A venue is permitted to execute at a price equal to a protected bid or offer when any of the following are satisfied:
 - i. The venue is:
 - Displaying a protected quotation priced equal to the prevailing protected quote, for a quantity of shares no greater than its full displayed size.
 - In receipt of an inbound TAISO (defined below), indicating that the sender has simultaneously routed TAISOs to execute against the full displayed size of the protected quote.



- Simultaneously routing TAISOs to execute against the full displayed size of the protected quote, as described above.
- ii. The order is:
- A retail investor order, and is executed with at least \$.005 price improvement.
 - A Block Size order, defined as 5,000 shares or notional value greater than \$100,000.
 - A stopped order.
 - For a fractional share quantity.
 - Executed at the prevailing PBBO midpoint.
 - Executed during a time when the exchange displaying the protected quote was experiencing a malfunction.
 - Executed as part of a transaction that was not a “regular way” contract.
 - Executed as part of a single-priced opening, reopening, or closing print.
 - Executed when the exchange displaying the traded-at quote had displayed a quote, within 1 second prior to the trade-at transaction, that was priced inferior to the price of the trade-at transaction.
 - Marked as a “Trade-At Intermarket Sweep” Order (TAISO).
 - Executed as part of a negotiated trade.
 - Executed while the prevailing PBBO is crossed (the protected bid is greater than the protected offer).

Further details for all trading exceptions for Test Group 2 and Test Group 3, and all trade-at exceptions for Test Group 3 are described by FINRA within its [FINRA Tick Size Program Trading and Quoting FAQs](#).

Venues will be obligated to fulfill SEC data collection requirements for a Control Group in addition to the three Test Groups. There are no changes to trading conventions for symbols included in the Control Group; the Control Group is included in the Tick Pilot for venue data reporting purposes only.

Which securities were selected for the Tick Pilot?

The criteria for selection of securities for the Tick Pilot were applied during a “Measurement Period” preceding the Tick Pilot, and were defined as:

- Market cap of \$3 billion or less,
- Closing Price of at least \$2.00 on the final day of the Measurement Period,
- Closing Price on every U.S. trading day during the Measurement Period that is not less than \$1.50,
- Consolidated Average Daily Volume (CADV) during the Measurement Period of one million shares or less, and
- A Measurement Period Volume-Weighted Average Price (VWAP) of at least \$2.00.

FINRA has [published a complete list of Tick Pilot securities and their Group assignments](#) on its website.

ETF symbols and other ETPs are not included in the Tick Pilot.



How will a symbol trade if its price depreciates to less than \$1?

For symbols assigned to a Tick Pilot Test Group, Tick Pilot trading requirements will continue to remain applicable if the symbol's price falls under \$1. An order's limit price must be defined in \$.05 increments, and all quotes must be displayed only in \$.05 increments.

If a Test Group symbol's closing price is less than \$1, it will be retired from its Test Group and re-assigned to the Control Group at the end of the day. In these circumstances, a symbol will not be re-introduced back into a Test Group if its price later appreciates above \$1.

When does the Tick Pilot become effective?

The Tick Pilot begins on October 3rd, 2016. Rather than becoming effective for all Test Groups at once, a staged rollout has been proposed from October 3rd until October 31st. Symbols within each Test Group will be migrated consistent with the schedule outlined on [FINRA's timeline](#).

Proposed Tick Pilot Symbol Rollout Schedule

	October 3 rd	October 10 th	October 17 th	October 24 th	October 31 st
Test Group 1	5 Total Symbols	100 Total Symbols	400 Total Symbols		
Test Group 2	5 Total Symbols	100 Total Symbols	400 Total Symbols		
Test Group 3			5 Total Symbols	100 Total Symbols	400 Total Symbols

IEX TICK PILOT BEHAVIOR

Will IEX retire any order types for Tick Pilot symbols?

IEX will not retire any existing order types.

IEX will continue to support and accept all existing order types for all symbols, regardless of the Test Group assignment. Orders will not be rejected due to an unsupported order type for a Tick Pilot security.

How will non-displayed orders behave in a locked market in Test Group 3?

If a non-displayed resting buy (sell) order would lock or cross the protected quotation of another exchange, the order will be booked at one minimum increment (\$.05) below (above) the NBO (NBB), consistent with the terms of the order.



How will discretionary peg orders behave in Test Group 3?

Consistent with all pegged orders at IEX, discretionary peg orders are always non-displayed only.

For symbols in Test Group 3, discretionary peg orders will book and re-price at the passive side of PBBO, in \$.05 increments.

When IEX's crumbling quote indicator is inactive, the discretionary peg order will be eligible to exercise the minimum amount of discretion necessary, no more aggressively than the prevailing PBBO midpoint, to meet an inbound order order's limit. When the crumbling quote indicator is active, the discretionary peg order will be ineligible to exercise discretion, and therefore will only rest on the passive side of the PBBO in \$.05 increments.

As a result of the trade-at provision, hidden orders at all venues (including IEX discretionary peg orders) will only be eligible to trade on the passive side of the PBBO when the inbound order is marked TAISO, is marked ISO and has a limit price through the discretionary peg order's booked price, or meets the Block Size exemption. In both the TAISO and aggressively-priced ISO use-cases, the Member sending the inbound TAISO or ISO is representing that the sender has satisfied all protected quotes equal to the price at which the discretionary peg order is booked, and is therefore eligible to interact with hidden shares at that price level.

Will IEX make any changes to its Router for Tick Pilot symbols?

IEX will not change the Router due to the Tick Pilot; routing behavior remains the same, though IEX will incorporate the use of TAISOs versus ISOs as appropriate while routing orders for Test Group 3 securities.

Will IEX add any new order types for Tick Pilot symbols?

IEX will begin to accept the "Trade-at Intermarket Sweep Order" (TAISO) execution instruction when the Tick Pilot becomes effective.

The TAISO must be defined as FIX Tag #18=y. All TAISOs must be defined with a TIF of IOC (FIX Tag #59=3), and a price limit defined in FIX Tag #44. TAISOs are not compatible with a Minimum Quantity condition.

What is a TAISO, and how is it different from an ISO?

Receipt of a TAISO for a symbol assigned to Test Group 3 indicates to the receiving market center that simultaneously with routing the limit order identified as TAISO, the sender has routed one or more orders, as necessary, to execute against the full displayed size of all protected quotes priced better than or equal to the TAISO's limit price, so the receiving market center does not need to access other protected quotes in order to satisfy its trade-at obligations before executing the TAISO. The TAISO instruction is only applicable for symbols assigned to Test Group 3, however IEX will accept TAISOs in all non-Test Group 3 securities, and will treat them as ordinary ISOs.

A standard ISO represents that the sender has routed to execute against the full displayed size of all protected quotes priced better than the ISO's limit price.



To illustrate:

IEX Order Book Scenario	Event	Result
A displayed order to sell 600 shares and a non-displayed order to sell 400 shares rest on the IEX book equal to the national best offer price of \$10.00.	An IEX Member sends a TAISO buy order for 1,000 shares with a limit price of \$10.00 .	The TAISO buy order executes against the 600 displayed shares and 400 non-displayed shares resting on the book.
	An IEX Member sends an ISO buy order for 1,000 shares with a limit price of \$10.00 .	The ISO buy order only executes against the 600 displayed shares resting on the book.
	An IEX Member sends an ISO buy order for 1,000 shares with a limit price of \$10.05 .	The ISO buy order executes against the 600 displayed shares and 400 non-displayed shares resting on the book. This ISO buy order is eligible to execute against the 400 non-displayed shares because it is defined with a price more aggressive than the booked price of the non-displayed shares.

What will happen if an order’s limit does not conform to Tick Pilot requirements?

If an order for a symbol assigned to a Test Group is defined with a minimum price increment other than \$0.05, the order will be rejected. Orders submitted to buy (sell) Control Group securities will be accepted and traded at all currently permissible increments.

How will orders with a “retail investor” designation behave?

IEX does not recognize nor offer special handling for a “retail investor” order designation. Orders designated as “retail” will be accepted and processed consistent with any other orders within the IEX trading system.

Will IEX change its TOPS market data feed for Tick Pilot symbols?

IEX will not make changes to its TOPS messaging format for Tick Pilot symbols.

Will IEX apply Tick Pilot rules during extended hours?

Yes, IEX will apply all Tick Pilot conditions, including adherence to trade-at prohibitions, during all system hours. IEX supports order matching and routing [from 8 AM EST until 5 PM EST](#).

Please contact Market Operations at MarketOps@iextrading.com or 646-343-2310 with any questions.

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