**Rule Self-Certification**

October 17, 2016

Christopher J. Kirkpatrick

Office of the Secretariat

Commodity Futures Trading Commission

Three Lafayette Center

1155 21st Street, NW

Washington, DC 20581

Re: **Implementation of New Self-Match Prevention Functionality**

**Reference File: SR-NFX-2016-96**

Dear Mr. Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended (“Act”), and Section 40.6(a) of the regulations promulgated by the Commodity Futures Trading Commission (“CFTC” or the “Commission”) under the Act, NASDAQ Futures, Inc. (“NFX” or “Exchange”) amends its Rules at Chapter IV, Section 10, entitled “Self-Match Prevention” (“SMP”) as well as its Mass Quote Protection & Self-Match Prevention Reference Guide (“Reference Guide”), to offer Futures Participants additional optionality in selecting the manner by which orders that would result in a self-match are handled. This rule change will be implemented on November 1, 2016 for trade date November 2, 2016. The text of Chapter IV, Section 10 is set forth in Exhibit A. The text of the Reference Guide is set forth in Exhibit B.

Under the current NFX trading system (“Trading System”), a Futures Participant may elect to have Orders or Quotes[[1]](#footnote-1) not execute against Orders or Quotes on the opposite side of the market that were entered by a Futures Participant with the same Market Participant User Identification (“MPID”). Under this process, the incoming Order or Quote will skip the resting Order or Quote that would result in self-match and match with the next marketable Order or Quote from a Futures Participant with a different MPID. The Exchange is amending the SMP rule to provide Futures Participants greater clarity as to how potential self-matching Orders or Quotes are handled by the Trading System. Under the new rule, Futures Participants utilizing SMP must elect to either (1) cancel the incoming Order or Quote; (2) cancel the resting Order or Quote; or (3) in the case of Implied Orders, allow the incoming Order to skip the resting Order or Quote that would result in a self-match and match with the next marketable Order or Quote of a Futures Participant with a different MPID. The Exchange will continue to offer SMP on an optional basis to Future Participants to prevent against self-match in both the Single and Combination Order Books. The Exchange believes that these additional choices will allow Futures Participants to better manage their risk.

The Exchange proposes to make corresponding changes to the Reference Guide to provide further guidance to market participants with respect to the optional protections offered by the Exchange. In addition, the Exchange has added more specificity to the Reference Guide, including cross references, relocated certain text and added more examples. The Reference Guide will be posted on the Exchange’s website to provide market participants additional information with respect to these available protections.

The Exchange certifies that the amendments comply with the Act and, specifically, the following designated contract market core principles:

• *Protection of markets and market participants*. Chapter III of the Exchange’s Rulebook sets out general trading standards and prohibited practices. Specifically, NFX prohibits Futures Participants from engaging in wash transactions that create the misleading appearance of activity occurring on the Trading System and/or causes the reporting of a misleading price level. The new SMP rule will work to reduce the likelihood that Futures Participants will be able to engage in wash trading activity. This will protect the market by ensuring that displayed trading activity accurately reflects the level of supply and demand in any given contract traded on the NFX platform. This will protect market participants from inadvertently engaging in wash trades.

• *Execution of Transactions*. The Exchange operates an electronic trading facility that provides Futures Participants with the ability to execute Orders within the Exchange’s Order Book using a predetermined automated trade matching and execution algorithm. Orders submitted into the Trading System will be matched in Price-Time priority. The Exchange specifies the types of Orders that will be accepted by the Trading System in Chapter IV, Section 4. The new SMP functionality will allow NFX to continue to protect the price discovery function by ensuring only competitively priced trades are executed on the Trading System.

• *Prevention of Market Disruption*: The Exchange’s Regulatory Department, which handles real-time surveillance, monitors trading activity on the Exchange with a SMARTS Surveillance Application through which the Exchange can track activity of specific Authorized Traders, monitor price and volume information and receive alerts regarding market messages.  The Exchange’s Regulatory Department utilizes data collected by the SMARTS Surveillance Application to monitor price movements, as well as market conditions and volumes to detect suspicious activity such as manipulation, disruptive trading and other abnormal market activity.  The new SMP functionality will aid the Exchange’s Regulatory Department by allowing it to focus valuable resources on other areas of market disruption that cannot be prevented using automated trading controls such as SMP.

• *Compliance with Rules*. The Exchange specifies the manner in which Futures Participants may access and trade on NFX. Chapter II, Section I provides for the qualifications and rules of participation applicable to Futures Participants as well as Authorized Traders. Futures Participants must utilize the Exchange’s services in a responsible manner, comply with Rules, cooperate with Exchange investigations and inquiries and observe high standards of integrity. In addition, the Rule provides clear and transparent access criteria and requirements for Futures Participants and Authorized Traders. Chapter V, Section 18 describes prohibited activities with respect to the Trading System.

There were no opposing views among the Exchange’s Board of Directors, members or market participants. The Exchange hereby certifies that the amendments to Chapter IV, Section 10 and the Reference Guide comply with the Commodity Exchange Act and regulations thereunder. The Exchange also certifies that a notice of pending certification with the Commission and a copy of this submission have been concurrently posted on the Exchange’s website at [business.nasdaq.com/futures](http://business.nasdaq.com/futures). A Futures Trader Alert, informing NFX’s Futures Participants of the pending changes and the need to select a new SMP functionality by November 1, 2016, is attached to this certification as Exhibit C.

If you require any additional information regarding the submission, please contact Aravind Menon at +1-301-978-8416 or via e-mail at [aravind.menon@nasdaq.com](mailto:aravind.menon@nasdaq.com). Please reference SR-NFX-2016-96 in any related correspondence.

Regards,

Daniel R. Carrigan

President

cc: National Futures Association

**Exhibit A to SR-NFX-2016-96**

*New text is underlined; deleted text is stricken*

Chapter IV: Trading System

\*\*\*\*\*

Section 10: Self-Match Prevention

1. Futures Participants may elect that Single or Combination Orders or Quotes of the Futures Participant not be executed against Single or Combination Orders or Quotes entered on the opposite side of the market by its Authorized Traders with the same Market Participant Identifier (“MPID”). Authorized Traders of a Futures Participant may elect to be grouped together with a unique MPID (collectively “Group MPID”), for purposes of Self-Match Prevention. A Futures Participant's Authorized Customer may elect that Orders or Quotes of the Authorized Customer not be executed against Orders or Quotes entered on the opposite side of the market by its Authorized Traders using the same MPID.
2. If Self-Match is engaged, the Trading System will remove certain Orders or Quotes that would otherwise match with Orders or Quotes of Authorized Traders using the same Group MPID. In the case of Implied Orders, an Order or Quote that would result in a self-match will not be removed. Instead, the Implied Order will skip to the next marketable Order or Quote in the Order Book that will not result in a self-match. In the event there is no other marketable Order or Quote in the Order Book, the incoming Order or Quote will be removed, except Incoming Implied Orders may be generated in the Order Book at one minimum trading increment away from the best bid or offer.
3. ~~the last Order which is entered on the opposite side of the market at a price which is at or better than the affiliated Futures Participant's Authorized Trader's bid or offer will be ineligible to execute against that Order. The Order will not be rejected unless the only contra-side interest resting on the book is from its affiliated Authorized Traders, and the Order may interact with other resting Orders on the Order Book.~~ Self-Match Prevention is optional for Futures Participants. Authorized Traders of a Futures Participant and an Authorized Customer may not be grouped together for purposes of Self-Match Prevention. Once elected, Self-Match Prevention is in effect throughout ~~available~~ each trading day during the Open Session, and applies to all Orders and Quotes associated with an MPID Group.

\*\*\*\*\*

**Exhibit B to SR-NFX-2016-96**

**NASDAQ Futures, Inc. (NFX)   
Mass Quote Protection & Self-Match Prevention Reference Guide**

Version1.0~~3~~4 **|** 2016-~~4~~11-~~15~~02

**CONFIDENTIALITY/DISCLAIMER**

This  Reference Guide is being forwarded to you strictly for informational purposes and solely for the purpose of developing or operating systems for your use that interact with systems of NASDAQ Futures, Inc. (NFXSM) and its affiliates (collectively, NFX).  This specification is proprietary to NFX.

NFX reserves the right to withdraw, modify, or replace this Reference Guide at any time, without prior notice.  No obligation is made by NFX regarding the level, scope or timing of NFX’s implementation of the functions or features discussed in this specification. The Reference Guide is provided “AS IS,” “WITH ALL FAULTS”. NFX makes no warranties to this Reference Guide or its accuracy, and disclaims all warranties, whether express, implied, or statutory related to the Reference Guide or its accuracy. This document is not intended to represent an offer of any terms by NFX. While reasonable care has been taken to ensure that the details contained herein are true and not misleading at the time of publication, no liability whatsoever is assumed by NFX for any incompleteness or inaccuracies.  By using this Reference Guide you agree that you will not, without prior written permission from NFX, copy or reproduce the information in this Reference Guide except for the purposes noted above. You further agree that you will not, without prior written permission from NFX, store the information contained in this Reference Guide in a retrieval system, or transmit it in any form or by any means, whether electronic, mechanical, or otherwise except for the purposes noted above. In addition you agree that you will not, without prior written permission from NFX, permit access to the information contained herein except to those with a need-to-know for the purposes noted above.

NFX℠is a servicemark of Nasdaq Futures, Inc.

© Copyright 2016, Nasdaq Futures, Inc. All rights reserved.

TABLE OF CONTENTS

1 INTRODUCTION 4

2 MQP PARAMETERS 4

2.1 DEFINTION OF UNDERLYING ASSET CLASS 5

2.2 EXPOSURE LIMIT TIME INTERVAL 5

2.3 QUANTITY PROTECTION 6

2.4 DELTA PROTECTION 6

2.4.1 Delta Protection Including Futures 6

2.4.2 Delta Protection Not Including Futures 6

2.5 QUOTATION FROZEN TIME INTERVAL 7

3 TRIGGERING CALCULATIONS AND CONSQUENCES 7

3.1 TRADES INCLUDED IN THE CALCULATION 7

3.2 THRESHOLD BREACH ACTION 7

3.3 RESET OF THE PARTICIPNT PROTECTION PARAMETERS 8

3.4 QUOTING AFTER A PARTICIPANT PROTECTION EVENT 8

3.5 MQP WITH MASS QUOTATIONS 8

3.6 PASSIVE AND AGGRESSIVE QUOTES 8

3.6.1 Aggressive Quotes 8

3.6.2 Passive Quotes 8

3.7 IN-HOUSE TRADING 8

3.7.1 Aggressive Quote matched with a Combination Order 8

3.7.2 Passive Quote matched with a Combination Order 9

3.8 STOP ORDERS 9

3.9 SESSIONS STATES 9

4 MQP EXAMPLES 9

4.1 EXAMPLE 1: AGGRESSIVE QUOTES (SECTION 3.6.1) 9

4.2 EXAMPLE 2: PASSIVE QUOTES (SECTION 3.6.2) 10

4.3 EXAMPLES 3 AND 4: COMBINATION ORDERS (SECTION 3.8) 10

5 SELF-MATCH PREVENTION (SMP) 12

6 DESCRIPTION OF SMP METHODS AND EXAMPLES 14

6.1 CANCEL NEWEST 14

6.2 CANCEL OLDEST 15

6.3 SKIP INTERNAL 17

# INTRODUCTION

This objective of this document is to provide an overview of NFX’s Trading System Mass Quote Protection (MQP) and Self-Match Prevention (SMP) functionality, as well as act as an explanatory reference guide for these key concepts and services provided by NFX. For purposes of this Reference Guide, a Participant is defined as a Clearing Futures Participant, Futures Participant, or Authorized Customer. A User is defined as an Authorized Trader. (See NFX Reference Guide, Section 2.3, Relational Model). To implement either MQP or SMP, Participants must designate a unique Market Participant Identifier (“MPID”) for identification in the NFX Trading System, or request NFX Market Operations to assign a unique MPID.

The Mass Quote Protection functionality is designed to prevent rapid fire trade executions resulting from Participant Mass Quotes. The Participant may elect MQP functionality whereby the Trading System will automatically purge all Quotes in a certain underlying Futures or Options Contract if a configurable number of contracts have been met or executed during a configurable amount of time. Participants will have the ability to use the MQP functionality for all underlying Contracts. Mass Quote Protection is optional for Futures Participants and Authorized Customers. All Participants may enter Quotes into NFX’s Trading System. See NFX Rulebook at Chapter IV, Section 9. See NFX Rulebook at Chapter I for definition of a Quote (including mass Quote).

Self-Match Prevention functionality prevents matching between counterparties affiliated with the same Participant or User. As a reminder, a Participant is defined as a Clearing Futures Participant, Futures Participant, or Authorized Customer. A User is defined as an Authorized Trader. (See NFX Reference Guide, Section 2.3, Relational Model). Futures Participants may elect that Orders and/or Quotes not execute against Orders and/or Quotes on the opposite side of the market by its Authorized Traders. A Futures Participant’s Authorized Customer may elect that Orders and/or Quotes not be executed against Orders and/or Quotes entered on the opposite side of the market by its Authorized Traders. Self-Match Prevention is optional for Futures Participants and Authorized Customers. See NFX Rulebook, Chapter V, Section 10 for the rule related to Self-Match Prevention.

# MQP Parameters

The MQP parameters are configurable by the Participant and are set at the Participant level or Group level. The Participant can update (change or disable) the MQP parameters intra-day. Affiliated Participants of either a Futures Participant or an Authorized Customer constitute a (“Group”), if elected.

Parameters available for a Participant to set by underlying are:

* Exposure Limit Time Interval;
* Quotation Frozen Time;
* Delta Protection; and
* Quantity Protection.

Note that all MQP parameter calculations will be measured on Participant Quote executions, and once triggered, only Participant Quotes will be purged from the Trading System Single Order Book. Orders and Combination Orders entered into the Trading System are not included in any MQP parameter calculations.

## DEFINTION OF UNDERLYING ASSET CLASS

The term “Underlying Asset Class” is an important concept in the configuration and implementation of NFX MQP. All parameters are monitored and calculated based on an Underlying Asset Class.

Underlying Asset Class is defined as the asset class upon which all of the related Futures and Options Contracts and Options on Futures Contracts are based. Per the diagram below, the NFX WTI Crude Underlying Asset Class includes WTI Crude Futures Contracts and Options on WTI Crude Futures Contracts.

If a MQP parameter threshold is triggered for an Underlying Asset Class, the Trading System would purge all Quotes for the WTI Crude Underlying Asset Class, which includes Quotes in WTI Crude Futures and Options.

The NFX Heating Oil Underlying Asset Class includes only Heating Oil Futures Contracts since no Options are listed.

## EXPOSURE LIMIT TIME INTERVAL

The Exposure Limit Timer Interval is the number of contracts executed during a period of time specified in seconds per Contract by the Participant.

Once the Participant commences submitting Quotes in a specified Contract, the Trading System will count the Exposure Limit Time Interval. After the expiration of an Exposure Time Limit, a new Exposure Limit Time Interval commences with an execution in a Contract.

The rolling time interval is used to determine if the Quantity or Delta Protection thresholds have been breached. Note that the Exposure Limit Time Interval can occasionally extend to 110% of the parameter due to Trading System constraints following excessive message activity.

It is especially important to note that if the rolling time interval is set to 0 (zero), the MQP functionality is turned off, disabling the MQP.

## QUANTITY PROTECTION

The Quantity Protection threshold value is a value that if equaled or exceeded for a specific Underlying Asset Class will trigger the Trading System to purge all Quotes or Group Quotes in the respective Futures and Options Contracts. The Quantity Protection threshold value is as defined as the maximum volume threshold of executed contracts that the Participant wants to trade within the given time interval (Exposure Limit Time Interval).

If the Quantity Protection threshold is set to 0 (zero), the Quantity Protection functionality would be effectively disabled.

## DELTA PROTECTION

The Delta Protection threshold value is a net delta value which if equaled or exceeded for an Options Contract related to the same Underlying Asset Class, will trigger the Trading System to purge all Quotes or Group Quotes in the Underlying Asset Class (including Futures). The Trading System calculates the absolute value of (long call executions + short put executions) – (short call executions – long put executions), which if equals or exceeds the net delta value during the Exposure Limit Time Interval, the Trading System will remove all Group Quotes in a Contract.

Participants may elect to also include Futures in that calculation per Contract. In this case, the Trading System calculates the absolute value of (long futures executions + long call executions + short put executions) – (short call executions – long put executions – short futures executions), which if equals or exceeds the net delta value during the Exposure Limit Time Interval, the Trading System will remove all Group Quotes in a Contract.

The Delta Protection threshold value will be monitored for each Underlying Asset Class individually. There are two different methods to calculate the Delta Protection threshold value depending if Futures Contracts are included in the calculation. The methods are defined in Sections 2.4.1 and 2.4.2 herein.

If the Delta Protection is set to 0 (zero), the Delta Protection functionality would effectively disable MQP.

### 2.4.1 Delta Protection Including Futures

The Delta Protection threshold value calculation method including Futures Contracts is:

the Absolute value of the sum of [(bought Future Contracts + bought Call Options on Futures Contracts + sold Put Options on Futures Contracts) – (sold Future Contracts + sold Call Options on Futures contracts + bought Put Options on Futures Contracts)].

### 2.4.2 Delta Protection Not Including Futures

The Delta Protection threshold value calculation method, not including Futures Contracts, is:

the Absolute value of the sum of [(bought Call Options on Futures Contracts + sold Put Options on Futures Contracts) – (sold Call Options on Futures Contracts + bought Put Options on Futures Contracts)].

## QUOTATION FROZEN TIME INTERVAL

When MQP is triggered due to a Delta and/or Quantity Protection threshold breach, the Participant will be prevented from entering new Quotes for a period of time defined by this parameter. The Quotation Frozen Time interval parameter shall be specified in number of seconds. The “frozen” time period exists to prevent Participant from entering additional Quotes before the threshold counters can be reset, which would lead to additional rejections.

Once the Quotation Frozen Time interval has expired, the thresholds counter(s) for the specified Contract underlying(s) will be reset and the Participant can enter additional Quotes into the Trading System.

If the Quotation Frozen Time interval is set to 0 (zero), the quotes are considered frozen and the quotation ability can only be activated by updating the parameter for the remainder of the Open Session unless the setting is modified; notwithstanding a reopening due to a Trading Halt.

# TRIGGERING CALCULATIONS AND CONSEQUENCES

## TRADES INCLUDED IN THE CALCULATION

Only single-leg trades that are matched in the Order Book via Quotes entered by the Participant are counted for purposes of MQP.

Additionally, Off-Order Book trade reports (Block Trades and Exchange of Futures for Related (“EFRPs”) Products) entered by the Participant are counted for purposes of MQP.

## THRESHOLD BREACH ACTION

When a Quantity or Delta Protection threshold is reached and/or breached, all Quotes for the Underlying Asset Class in which the threshold violation took place will automatically be purged by the Trading System. Note that Quotes in Futures Contracts will be purged regardless of whether the Delta Protection threshold calculation is set to include or exclude Futures Contracts. As an example, if a Participant’s Delta Protection threshold calculation method excludes Futures Contracts and the Participant executes an amount of WTI Crude Options on Futures Contract trades via Quotes in one direction to reach or breach the Participant’s threshold, MQP will purge all of the Participant’s existing Quotes in WTI Crude Futures Contracts and WTI Crude Options on Futures Contracts (the WTI Crude Underlying Asset Class) regardless of direction (either long or short) of the Quotes.

Single Orders and Combination Orders submitted by the Participant will not be purged. The Participant will be informed via a Trading System broadcast message of the purge. There will be one Trading System broadcast message sent for each purged Quote. The Participant will also be informed when limits have been reached or breached via a broadcast message.

In the case where the Participant has many Quotes in the Order Book in the same Instrument series, all Quotes will be purged.

## RESET OF THE PARTICIPANT PROTECTION PARAMETERS

After MQP has taken place, due to a threshold violation, and the respective Quotes are purged, the counted quantities will automatically reset to zero. This prevents the threshold breach from being triggered immediately after the initial trigger. The Participant will be able to submit additional Quotes in the underlying after the frozen time interval has expired.

## QUOTATION AFTER A PARTICIPANT PROTECTION EVENT

If additional Quotes have been submitted by a Participant immediately after a MQP threshold breach has occurred, causing a purge of all Quotes in the underlying, but before the notification broadcast message is received by the Participant, additional Quotes will be rejected, and the Participant will receive an additional notification message with the reason code “Participant Protection.” After the specified quotation frozen time, the Participant can start submitting Quotes into the Trading System. If the Participant wants to submit new Quotes earlier than this timeframe, the Participant has the ability to override the Quotation Frozen Time by updating the parameters. When the parameters are updated, the calculated Quantity Protection and Delta Protection values will reset for that particular Underlying Asset Class; regardless of whether parameters have been changed.

## MQP WITH MASS QUOTTIONS

If a mass Quote is sent to the Trading System which results in trade executions, the mass Quote transaction shall be processed as multiple, individual transactions, instead of one composite transaction. If these multiple individual transactions were to cause a threshold breach, thus triggering MQP, the remaining unexecuted Quotes in the transaction in the same Underlying Asset Class will be purged with reason code “Participant Protection.”

## PASSIVE AND AGGRESSIVE QUOTES

### 3.6.1 Aggressive Quotes

If an aggressive Quote is entered by the Participant that matches with Orders in the Order Book, the MQP is checked for each individual Quote. See example 1 in Section 5.1 herein.

### 3.6.2 Passive Quotes

If an aggressive single Order is entered into the Trading System that matches with passive Quotes from the Participant in the Order Book, MQP shall be checked when the aggressive Order has been fully matched. See example 2 in Section 5.2 herein.

## IN-HOUSE TRADING

### A Participant or User will not be able to match its Orders against its own Orders or Orders submitted by another Participant or User affiliated with a common Futures Participant or Authorized Trader.

### 3.7.1 Aggressive Quote matched with a Combination Order

If an aggressive Quote by a Participant is matched with an Implied Order generated from a Combination Order, the MQP will first check each individual Quote item, and then consider other legs of the Combination Order Strategy, which shall be traded before the MQP is triggered, even if a threshold is reached after the first leg is traded. See example 3 in Section 5.3 herein.

### 3.7.2 Passive Quote matched with a Combination Order

If a passive Quote by the Participant is matched with an Implied Order generated from a Combination Order the MQP will first check each individual Quote item, and then consider the other legs of the Combination Order Strategy, which shall be traded before the MQP is triggered, even if a threshold is reached after the first leg is traded.

## STOP ORDERS

MQP has priority against resting Stop Orders. If a trade triggers MQP and the new last price also triggers a Stop Order, which is eligible to trade against another Participant Quote, the Stop Order will not be triggered before the Quotes have been purged.

## SESSION STATES

The MQP will only be enabled during Trading Sessions with continuous matching (the Open Session).

# MQP Examples

## EXAMPLE 1: AGGRESSICE QUOTES (SECTION 3.6.1)

If an aggressive Quote is entered by the Participant that matches with Orders in the Order Book, MQP shall be checked for each individual Quote.

Example 1:

Assume that the Participant has defined the Quantity Protection to 9.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
| 1. Order | 10 | 100.0 |  |  |  |
| 2. Order | 10 | 100.0 |  |  |  |
| 3. Order | 10 | 100.0 |  |  |  |
| 4. Order | 7 | 100.0 |  |  |  |
| 5. Quote P | 5 | 99.0 |  |  |  |

Assume that the Participant enters one Quote: sell 30@99.0.

This Quote is fully matched against all Orders and Quotes in the Order Book before the Quantity Protection is checked. The calculated Quantity Protection value is then 30, which exceeds the Quantity Protection of 9.

The Mass Quote Protection is triggered.

Any Quotes belonging to the Participant in the affected Order Books are removed (thus removing the remaining of Quote number 5 in the Order Book).

The Order Book, after the Order has been matched, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
| 1 | 7 | 100.0 |  |  |  |

## EXAMPLE 2: PASSIVE QUOTES (SECTION 3.6.2)

Assume that the Participant has defined the Quantity Protection to 9.

Assume that two individual Quotes and two Orders are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
| 1. Quote P | 10 | 100.0 |  |  |  |
| 2. Order | 10 | 100.0 |  |  |  |
| 3. Order | 5 | 99.0 |  |  |  |
| 4.Quote P | 10 | 99.0 |  |  |  |
| 5. Order | 10 | 99.0 |  |  |  |

Assume that a market participant enters one Order sell 30@99.0.

This Order is matched against all Orders and Quotes in the Order Book, leaving 5 in the Quote number 4. Next, the Trading System checks the Quantity Protection. The calculated Quantity Protection value is then 15 (10 from Quote number 1. + 5 from Quote number 4.), which exceeds the Quantity Protection of 9. Note that the calculated Quantity Protection value does not contain any quantity contribution from Order number 2 or Order number 3.

The Mass Quote Protection is triggered.

Any Quotes belonging to the Participant in the affected Order Book are removed (thus removing the remaining of Quote number 4 in the Order Book).

The Order Book, after the Order has been matched, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
| 5. order | 10 | 99.0 |  |  |  |

## EXAMPLES 3 AND 4: COMBINATION ORDERS (SECTION 3.8)

If an aggressive Quote by the protected Participant is matched with an Implied Order generated from a Combination Order Strategy, Mass Quote Protection shall first check each individual Quote and then consider the other legs of the Combination Order Strategy which shall be traded before the Mass Quote Protection is triggered, even if a threshold is reached after the first leg is executed.

**Example 3: Aggressive Quote matched with Combination Order Strategy**

Combination Order AB: buy A and sell B (A and B is part of the same underlying)

Step 1:

Mass Quoter A (MQA) has a one-sided Quote in series A. (10@10)

The Quantity Protection parameter is set to 9 for MQA.

Participant B (PB) enters an Order in series A. (5@10)

Participant A (PA) wants to buy the Combination Order Strategy AB 10 times at 2.

When PA enters the Combination Order, an Implied Order is generated in the series B Order Book.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Order Combo AB |  |  |  |  |
| (PA) 10 @2 |  |  |  |  |
|  |  |  |  |  |
| Series A |  |  | Series B |  |
|  | 10@10 (MQA) |  |  | 10@8 (implied) |
|  | 5@10 (PB) |  |  |  |

Step 2:

MQA enters a Quote in series B: buy 10@8.

Result:

The whole Order will execute before the Mass Quote Protection is triggered, and the remaining Quotes (in the underlying Contract) would be removed because of the trigger. Orders are not removed as a result of the trigger.

The calculated Quantity Protection will be 20.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Combo AB |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Series A |  |  | Series B |  |
|  | 5@10 (PB) |  |  |  |

**Example 4: Passive Quote matched with Combination Order Strategy**

Step 1 is the same as in example 3.

Step 2:

Participant B (PB) enters an Order in series B: 10@8.

The whole Order will execute before the Mass Quote Protection is triggered, and the remaining Quotes (in the underlying Contract) would be removed because of the trigger. Orders are not removed as a result of the trigger.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Combo AB |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Series A |  |  | Series B |  |
|  | 5@10 (PB) |  |  |  |

# SELF-MATCH PREVENTION (SMP)

Self-Match Prevention (SMP) functionality prevents matching between counterparties affiliated with the same Participant or User. A Participant is defined as a Clearing Futures Participant, Futures Participant, or Authorized Customer. A User is defined as an Authorized Trader. Futures Participants (for example, a Futures Commission Merchant “FCM”) may elect that Orders and/or Quotes not execute against Orders and/or Quotes on the opposite side of the market by its Authorized Traders. A Futures Participant’s Authorized Customer (for example, an NFX Designated Market Maker “DMM” or Proprietary Trading Firm “Prop Firms”) may elect that Orders and/or Quotes not be executed against Orders and/or Quotes entered on the opposite side of the market by its Authorized Traders. An Order may be a Market Order, Limit Order, Market-to-Limit Order, Stop Order, Stop Limit Order, Iceberg Order, TAS Order, Combination Order, Implied Order or Linked Order. Please note Self-Match Prevention is optional for Futures Participants and Authorized Customers.

FCMs can utilize SMP to prevent unauthorized or unintentional self-matches by its Authorized Traders. For example, FCM Authorized Trader A enters a Limit Order into the NFX Trading System to pay $49.30 for 100 June Brent Crude contracts, and then immediately enters a new Limit Order to Sell 27 June Brent Crude contracts at $49.30. If SMP is not engaged, and if these respective Limit Orders are “top-of-book”, the Limit Orders will match. DMMs and Prop Firms can also utilize SMP to prevent unintentional self-matches by its Authorized Traders. For example, DMM Alpha Authorized Trader Bill enters a Limit Order into the NFX Trading System improving the best bid to pay $2.957 for 200 June Henry Hub Nat Gas contracts. Affiliated DMM Alpha Authorized Trader Jerry sees an opportunity and immediately enters a Limit Order to sell 150 June Henry Hub Nat Gas contracts at $2.952. Since DMM Alpha elected SMP for its Authorized Traders grouped under a unique MPID, the two Limit Orders do not match.

~~As mentioned in the introduction, this optional functionality prevents matching between counterparties affiliated with the same Participant or User.~~ NFX offers two electable versions of SMP functionality to allow Participants to choose how Orders and/or Quotes are handled in the event of a self-match situation in both the single-leg Order Book and Combination Order Book: 1.) Cancel Newest, and 2.) Cancel Oldest. However, neither of these SMP versions apply to Implied Orders. Rather, the Trading System will use Skip Internal SMP to evaluate all Implied Orders (Implied Out or Implied In) generated by an Authorized traders grouped under a unique MPID.

An Implied Out Order derives its price and quantity from resting Combination Strategy Orders and the aggregate of the respective legs which are at the best price for a Contract. An Implied In Order derives its price and quantity from the net differential from the best prices as between two contract months for a Contract. If SMP is elected, Skip Internal functionality will automatically apply to Implied Orders. The Trading System will aggregate all Implied Orders (only one Implied Order will be displayed to the market per leg Order Book and side, with all aggregated implied quantity at best price). However, even if the Trading Algorithm is price-time priority order execution, the aggregated Implied Orders are always ranked last amongst the Orders on the best price, and the ranking of the aggregated Implied Orders does therefore not reflect how the Implied Order will be matched. Further, an Implied Order may either be filled at or better than the implied price if contra side interest exists. However, if the last Implied Order which is entered on the opposite side of the market is at a price which is at or better than the affiliated Authorized Trader's (grouped under a unique MPID) bid or offer, it will be ineligible to execute against that Order and will skip to the next resting Order. (See NFX Reference Guide, Sections 1.2.6 and 1.2.6.1.10, Combination & Implied Orders Technical Reference Document).

The Self-Match Prevention parameter is configurable at both the Participant and User level. The functionality will prohibit matching between counterparties affiliated with the same Participant or User. A Participant or User will not be able to match its Orders and/or Quotes against its own Orders and/or Quotes or Orders and/or Quotes submitted by another Participant or User affiliated with a common Futures Participant or Authorized Trader. Self-Match Prevention at the Participant level can be configured to override any setting at the User level. Authorized Traders of a Futures Participant may be grouped together under a unique MPID for purposes of Self-Match Prevention. ~~If a residual quantity of an Order exists after matching, crossed or locks with Orders from the same or commonly affiliated Participant or User, the residual quantity of the Order will be rejected unless the only contra-side interest resting on the book is from its affiliated Authorized Traders, and the Order may interact with other resting Orders on the Order Book. If Self-Match is engaged, the last Order which is entered on the opposite side of the market at a price which is at or better than the affiliated Futures Participant’s Authorized Trader’s bid or offer will be ineligible to execute against that Order.~~

~~Self-Match Prevention at the Participant level can be configured to override any setting at the User level. Authorized Traders of a Futures Participant may be grouped together for purposes of Self-Match Prevention.~~

~~This configuration will apply also for Combination Orders, both when matching against other Combination Orders and against single-leg Orders.~~

~~For Mass Quotes, the configuration applies when matching against Orders. Regardless of the internal crossing configuration, only one optimized Quote per Options series and Participant is allowed and may never cross with each other.~~

The configuration for all two electable SMP versions applies in continuous matching Trading Sessions only (the Open Session). Therefore, two Orders submitted by the same Participant might match in an uncross (Pre-Open Session). Additionally, off-Exchange trade reports (Block Trades and EFRPs for Futures) and Crossing Transactions are not subject to Self-Match Prevention functionality.

# DESCRIPTION OF SMP METHODS AND EXMPLES

## CANCEL NEWEST

The last incoming (newest) Order or Quote, regardless of size, which is entered on the opposite side of the market at a price which is at or better than the affiliated Futures Participant’s Authorized Trader’s (Unique MPID) resting bid or offer will be ineligible to execute against that Order or Quote and will be cancelled back to the Authorized Trader. The Futures Participant’s Authorized Trader’s (Unique MPID) resting bid or offer will remain intact with no changes.

**Example 1: Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen CANCEL NEWEST SMP for Authorized Traders grouped under MPID1.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Order | 20 | 100.00 |  |  |  |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Order | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

Assume that Authorized Trader under MPID1 enters one Order: Sell 10@98.00.

The MPID1 Sell Order 10@98.00 is rejected against the resting top of book MPID1 Buy Order 20@100.00 and will be cancelled back to the Authorized Trader.

**Example 2: Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen CANCEL NEWEST SMP for Authorized Traders under MPID2.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Order | 20 | 100.00 |  |  |  |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Order | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

Assume that Authorized Trader under MPID2 enters one Order: Sell 70@98.00.

The incoming MPID2 Sell Order for 70@98.00 and the resting MPID1 top of book Buy Order for 20@100.00 are matched (total of 20 contracts). The original incoming MPID2 Sell Order is now seeking to sell 50@98.00.

When the original incoming MPID2 Sell Order is about to match against the resting second bid (MPID2 Order for 30@99.00), the remaining quantity to sell 50@98.00 is cancelled back to the Authorized Trader.

The Order Book, after SMP has been effected, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Quote | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

**Example 3: Market Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen CANCEL NEWEST SMP for Authorized Traders under MPID1.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Order | 20 | 100.00 |  |  |  |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Order | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

Assume that Authorized Trader under MPID1 enters one Order: Sell 10@Market.

The MPID1 Sell Order 10@Market is rejected against the resting top of book MPID1 Buy Order 20@100.00 and will be cancelled back to the Authorized Trader.

## CANCEL OLDEST

The last (incoming) Order or Quote, regardless of size, which is entered on the opposite side of the market at a price which is at or better than the affiliated Futures Participant’s Authorized Trader’s (Unique MPID) resting bid or offer will be ineligible to execute against that Order or Quote, but will remain intact with no changes. The Futures Participant’s Authorized Trader’s (Unique MPID) resting bid or offer (oldest) will be cancelled back to the Authorized Trader.

**Example 1: Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen CANCEL OLDEST SMP for Authorized Traders under MPID1.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Order | 20 | 100.00 |  |  |  |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Order | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

Assume that Authorized Trader under MPID1 enters one Order: Sell 10@98.00.

The resting MPID1 Buy Order 20@100.00 will be cancelled back to the Authorized Trader.

The incoming MPID1 Sell Order 10@98.00 and resting MPID2 Buy Order 30@99.00are matched (total of 10 contracts).

The Order Book, after SMP has been effected, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID2 Order | 20 | 99.00 |  |  |  |
| MPID1 Quote | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

**Example 2: Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen CANCEL OLDEST SMP for Authorized Traders under MPID1.

Assume that four individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Order | 20 | 100.00 |  |  |  |
| MPID2 Order | 30 | 99.00 |  |  |  |
| MPID1 Order | 10 | 99.00 |  |  |  |
| MPID99 Quote | 25 | 98.00 |  |  |  |

Assume that Authorized Trader under MPID1 enters one Order: Sell 60@98.00.

The resting MPID1 Buy Order 20@100.00 will be cancelled back to the Authorized Trader.

The incoming MPID1 Sell Order 60@98.00 matches with the resting MPID2 Order 30@99.00 (total of 30 contracts).

The incoming MPID1 Sell Order is now seeking to sell 30@98.00.

The resting MPID1 Buy Order 10@99.00 will be cancelled back to the Authorized Trader.

The remainder of the incoming MPID1 Sell Order 30@98.00 matches with resting MPID99 Quote 25@98.00 (total of 25 contracts).

The remaining 5 contracts of the incoming MPID 1 Sell Order is placed in the Order Book.

The Order Book, after SMP has been effected, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
|  |  |  | 98.00 | 5 | MPID1 Order |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## SKIP INTERNAL

The Trading System uses Skip Internal SMP to evaluate all Implied Orders (Implied Out or Implied In) generated by an Authorized trader under a unique MPID. If SMP is elected, Skip Internal SMP functionality will apply to all Implied Orders. This means that an Order or Quote that would result in a self-match will not be removed. Instead, the Implied Order will skip to the next marketable Order or Quote in the Order Book that will not result in a self-match. In the event there is no other marketable Order or Quote in the Order Book, the incoming Order or Quote will be removed, except Incoming Implied Orders may be generated in the Order Book at one minimum trading increment away from the best bid or offer.

The Trading System will aggregate all Implied Orders (only one Implied Order will be displayed to the market per leg Order Book and side, with all aggregated implied quantity at best price). However, if the Trading Algorithm is price-time priority order execution, the aggregated Implied Orders are always ranked last amongst the Orders on the best price, and the ranking of the aggregated Implied Orders does therefore not reflect how the Implied Order will be matched.

**Example 1: Order and/or Quotes of Varied Size and Price**

Assume that Participant has chosen to engage one of the two SMP versions for Authorized Traders under MPID1:

Trading System evaluates all Implied Orders with SKIP INTERNAL SMP for Authorized Traders grouped under MPID1. Skip Internal SMP is engaged for any implied order generated by an MPID with any version of SMP active. Because the version of SMP engaged does not impact the outcome for implied orders generated by MPIDs with SMP engaged, the SMP version is not specified in this example.

Assume that three individual Orders and one Quote are stored in the Order Book:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID2 Order | 10 | 100.00 |  |  |  |
| MPID1 Implied Order | 10 | 100.00 |  |  |  |
| MPID3 Quote | 20 | 99.00 |  |  |  |

Assume that Authorized Trader under MPID1 enters one Order: Sell 30@99.00.

The MPID1 Sell Order 30@99.00 is matched against the MPID2 Order (10@100.0) (total of 10 contracts).

The remaining incoming MPID1 Sell Order 20@99.00 is ineligible to execute against the MPID1 Buy Implied Order 10@100.00.

The remaining incoming MPID1 Sell Order 20@99.00 is matched against the MPID3 Quote (20@99.00) (total of 20 contracts).

The Order Book, after SMP has been effected, looks like:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bid | | | Offer | | |
| Order No | Quantity | Price | Price | Quantity | Order No |
|  |  |  | 101.00 | 10 | MPID4 Order |
| MPID1 Implied Order | 10 | 100.00 |  |  |  |

© Copyright 2016, Nasdaq, Inc. All rights reserved

****

**Exhibit C to SR-NFX-2016-96**

**Futures Trader Alert #2016 - XX** October XX, 2016  
Futures Participants Must Elect New Self-Match Prevention Functionality by Nov 1st

|  |  |
| --- | --- |
| **Category:**  System Impact **Markets Impacted:**  [Nasdaq Futures](http://www.nasdaqomx.com/transactions/markets/nasdaq-futures)  **Contact Information:**  [U.S. Market Operations - Futures](mailto:nfxops@nasdaq.com) at +1 215 496 1571 [U.S. Market Sales](mailto:sales@nasdaqomx.com) at +1 800 846 0477   * [Futures Sales](mailto:nfxsales@nasdaq.com) * [Futures Regulation](mailto:futuresreg@nasdaq.com)   **Resources:** | Pending all regulatory approvals, effective for the Open Session November 1, 2016, the Exchange will implement new Self-Match Prevention functionality pursuant to regulatory filing SR-NFX-2016-96.  Under the current NFX Trading System, a Futures Participant may elect to have Orders or Quotes not execute against Orders or Quotes on the opposite side of the market that were entered by a Futures Participant with the same Market Participant User Identification (“MPID”). Under this process, the incoming Order or Quote will skip the resting Order or Quote that would result in self-match and match with the next marketable Order or quote from a Futures Participant with a different MPID. This process is known as “Skip Internal Functionality”. The Exchange is amending the SMP rule to eliminate Skip Internal Functionality as the default SMP version.  Under the new rule, Futures Participant utilizing SMP must elect by November 1, 2016 to either (1) cancel the incoming Order or Quote “Cancel Newest”; (2) cancel the resting Order or Quote “Cancel Oldest”. If a Futures Participant which has previously elected SMP fails to notify the Exchange by Noon EPT, November 1, 2016, the Exchange will set Cancel Newest as the default SMP functionality.  An explanatory reference guide, Mass Quote Protection & Self-Match Prevention Reference Guide is posted on the Exchange website.  For additional information, please contact NFX Market Operations nfxops@nasdaq.com. |

1. Both Orders and Quotes are defined in Chapter I, Section 1 as “bids or offers.” The Exchange is adding both Orders and Quotes within the rule for clarity. [↑](#footnote-ref-1)