

Subject to regulatory review, effective for the Open Session on November 1, 2016, the Exchange will implement new Self-Match Prevention (“SMP”) functionality pursuant to regulatory filing SR-NFX-2016-96.

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

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# 1 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.

## 2 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.

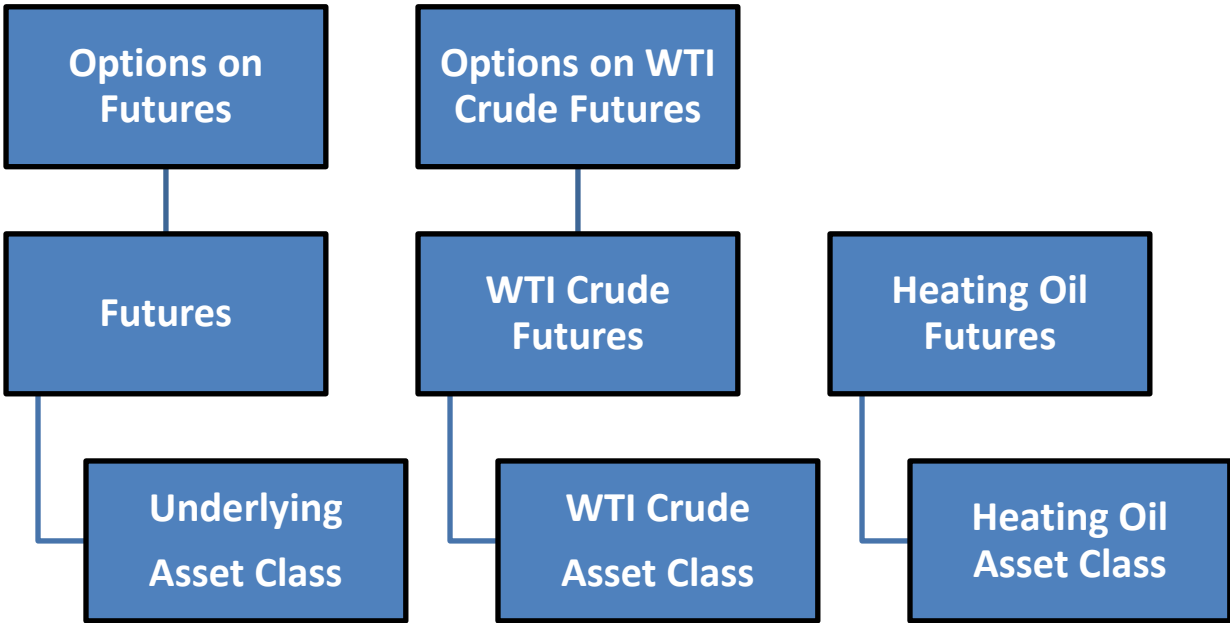
Note that all MQP parameter calculations will be measured on Participant Quote executions, and once triggered, only Participant Quotes will be purged from the Trading System Single Order Book. Orders and Combination Orders entered into the Trading System are not included in any MQP parameter calculations.

### 2.1 DEFINITION 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.

### 2.2 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.

### 2.3 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.

### 2.4 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)].

## 2.5 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.

# 3 TRIGGERING CALCULATIONS AND CONSEQUENCES

## 3.1 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.

## 3.2 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.

### **3.3 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.

### **3.4 QUOTING 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.

### **3.5 MQP WITH MASS QUOTATIONS**

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."

### **3.6 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.

### **3.7 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.

## 3.8 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.

## 3.9 SESSION STATES

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

# 4 MQP EXAMPLES

## 4.1 EXAMPLE 1: AGGRESSIVE 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			

**4.2 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			

**4.3 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	
	10@10 (MQA)
	5@10 (PB)

Series B	
	10@8 (implied)

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	
	5@10 (PB)

Series B	

#### 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)

Series B	

## 5 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.

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 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.

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.

## 6 DESCRIPTION OF SMP METHODS AND EXAMPLES

### 6.1 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.

## 6.2 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@99.00 are 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

**6.3 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			



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