

Self Match Prevention

Self Match Prevention (SMP) is an optional feature available on The Nasdaq Stock Market (Nasdaq), Nasdaq BX (BX) and Nasdaq PSX (PSX) that prevents certain member orders from executing against each other. Nasdaq offers three versions of the functionality to allow participants to choose how orders are handled in the event of a self match scenario.

How To Activate Self Match Prevention

There are two different matching levels available on inbound orders which control how SMP functionality is triggered:

1. MPID + Group ID
or
2. ORG ID + Group ID

* For OUCH and FLITE order entry protocols, settings can be applied at the individual Port/MPID level

* For RASH order entry protocols, a member can only designate one setting per MPID

MPID: Market Participant Identifier

ORG ID: top level organizational identifier. Allows firms to enable SMP across multiple MPIDs with common ownership.

Group ID: two-character identifier specified by firms to enable SMP at a more granular level within a given MPID or ORG ID. Group ID is mandatory and will be assigned two blank characters by default unless otherwise specified by the member.

NOTE: The SMP matching level on the incoming order will dictate the criteria by which SMP is evaluated. The order criteria must match on both the resting and incoming orders for SMP to be triggered (**MPID + Group ID** or **ORG ID + Group ID**).

Firms may opt-in to any version of the Self Match Prevention functionality by completing the Nasdaq Port Request Form, BX Port Request Form and/ or PSX Port Request Form for each MPID or ORG ID. Firms that have opted into the functionality will receive a value of "Q" in the Cancel Order Reason field per the INET FIX, RASH and OUCH protocol specifications.

More Information

Transaction Services U.S.
Market Sales

Email: sales@Nasdaq.com

Phone: + 1 800 846 0477

Self Match Prevention Actions

Version 1: Decrement

- If the orders have the same share size, both orders will cancel back to the customer.
- If the orders are not equivalent in size, the smaller order will cancel back to the originating customer and the larger order will decrement by the size of the smaller order.

Version 2: Cancel Oldest

Regardless of size, the full size of the order residing on the book will cancel back to the customer if the incoming order would execute against it. The incoming order will remain intact with no changes.

Version 3: Cancel Newest

Regardless of size, the full size of the order coming into the book will cancel back to the customer. The resting order will remain intact with no changes.

NOTE: The SMP strategy on the incoming order will dictate the strategy that is activated.

Example

The below examples demonstrate how SMP actions are applied when different incoming orders interact with a resting order:

Resting Order

MPID	ORG ID	Group ID	SMP Level	SMP Action
MPID 1	ORG 1	AA	MPID	Decrement

Incoming Orders

MPID	ORG ID	Group ID	SMP Level	SMP Action	Action applied
MPID 1	ORG 1	AA	MPID	Decrement	Decrement
MPID 1	ORG 1	AB	MPID	Decrement	Match
MPID 1	ORG 1	AA	ORG	Cancel Oldest	Cancel Oldest
MPID 1	ORG 1	AB	ORG	Cancel Oldest	Match
MPID 2	ORG 1	AA	MPID	Cancel Newest	Match
MPID 2	ORG 1	AB	MPID	Cancel Oldest	Match
MPID 2	ORG 1	AA	ORG	Cancel Newest	Cancel Newest
MPID 2	ORG 1	AB	ORG	Decrement	Match

Self Match Prevention Examples

Decrement

Example 1 – Orders Of Equivalent Size

If both orders are equivalent in size, all shares of both orders will be cancelled back to the customer.

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	200 @ \$10.01	200 @ \$10.01	MPID/ORG A	Both orders cancel back to customer

Example 2 – Resting Order Is Larger Than The Incoming Order

If the resting order on the book is larger in size than the incoming order, then the incoming order will be cancelled back to the originating customer. The resting order will be decremented by the size of the smaller order and the remaining shares will post on the book.

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	200 @ \$10.01	500 @ \$10.01	MPID A	All of the incoming order cancels back to the customer; 200 shares of the resting 500 share order cancel back to the customer
		REMAINING ORDER 300 @ \$10.01	MPID A	

Example 3 – Incoming Order Is Larger Than The Resting Order

If the resting order on the book is smaller in size than the incoming order, then the resting order will be cancelled back to the originating customer. The incoming order will be decremented by the size of the smaller order and the remaining shares will post on the book.

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	500 @ \$10.01	200 @ \$10.01	MPID/ORG A	200 shares of the incoming 500 share order cancel back to the customer; all of the resting order cancels back to the customer
	REMAINING ORDER MPID/ORG A 300 @ \$10.01			

Cancel Oldest

Example 1

MPID A enters a 1,000 share buy order on the Nasdaq book to execute at \$10.01. The shares will execute in the following manner:

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	1000 @ \$10.01	200 @ \$10.01	MPID/ORG B	Executes
		200 @ \$10.01	MPID/ORG C	Executes
REMAINING ORDER		INCOMING ORDER		Resting order cancels back with 600 unexecuted shares. Incoming order will remain intact.
MPID/ORG A	600 @ \$10.01	200 @ \$10.01	MPID/ORG A	

Example 2 - Resting Order With Trade-Now

MPID A has a resting non-displayed 1,000 share buy order on the Nasdaq book to execute at \$10.01, with Reactive Trade-Now. MPID A sends in a 200 share Post-Only order to sell at \$10.01. The shares will execute in the following manner:

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	1,000 @ \$10.01	200 @ \$10.01	MPID/ORG A	Incoming order of 200 shares posts and displays at \$10.01.
INCOMING ORDER				Resting order of 1,000 shares is cancelled in full. The resting 200 share order will remain intact.
MPID/ORG A	Trade-Now message			

Cancel Newest

MPID A has a resting 1,000 share buy order on the Nasdaq book to execute at \$10.01. MPID A sends in a 200 share order to sell at \$10.01. The shares will execute in the following manner:

BUY ORDER		SELL ORDERS IN PRICE/TIME PRIORITY		ACTION
MPID/ORG	ORDER	ORDER	MPID/ORG	
MPID/ORG A	1,000 @ \$10.01	200 @ \$10.01	MPID/ORG A	Incoming order of 200 shares is cancelled in full. The resting 1,000 share order remains intact on the Nasdaq book.