



TRADING INSIGHTS- MISSED OPPORTUNITIES LIQUIDITY

Product Specification Document

Last Update: 2/10/2017

1 Product Description:

- Missed Opportunity Liquidity allows customers to understand the liquidity profile of the orders they have submitted to Nasdaq. The report provides visibility into when they could have oversized an order to get more shares filled at a better price.
- When a client sends in an order that was fully executed and subsequently (within 100 milliseconds) sends in another order (or multiple orders) on the same port for the same security at the same or inferior price level, a missed opportunity is triggered. The report will provide you the value of these missed opportunities to help optimize your timing of orders and trading patterns to yield better returns or limit your cost exposure to the market.

2 Product Details

- Missed Opportunity Liquidity gives customers the ability to detect orders where larger trades could have been executed
- The report starts with a fully executed order followed by subsequent order or orders submitted within 100 milliseconds.
- Reports
 - Daily Security File- T+1 report available by 6:30am the next business day
 - Daily Summary File- T+1 report available by 6:30am the next business day
 - Month- to-date File- T+1 report available by 6:30am the next business day

3 Data Delivery Options

- SFTP
- Entitlements
 - Only the firm responsible for the trading is allowed to access the information.

File Delivery

- External customers download the daily files via the current data SFTP
- Follow the current SFTP historical data file directory structure as follows:

Directory structure: /TradingInsights/MPID/Port/YYYY/MM/DD/moli

File Name structure:

- mmddyymm_MPID_Port_Daily_Security_MissedOp-Liquidty-#####.csv
 - mmddyymm_MPID_Port_Daily_Summary_MissedOp- Liquidity-#####.csv
 - mmddyymm_MPID_Port_Monthly_Summary_MissedOp- Liquidity-#####.csv
- If there are no files for a given time period, moli directory will not be present
 - All Orders that come into the system from MPID via protocols other than OUCH will be grouped as RASH
 - All RASH ports missed opportunities are consolidated and in RASH folder:
/TradingInsights/MPID/RASH/YYYY/MM/DD/moli

4 Data Fields and Types

- Data files will be provided in a comma-delimited, ASCII-text file (csv). For convenience, NASDAQ will include a header row within each file.
- All timestamps are in nanoseconds since midnight ET and applied at the matching engine at time of order processing.

Field Name	Field Name Detail	Description						
Date	Date	Date of report						
MPID	MPID	MPID of the firm						
Port	Port	Port assigned to the firm						
Symbol	Symbol	NASDAQ assigned issue symbol for the security on the day of trade.						
BuySell	Buy/Sell Indicator	Side of the market at which the market participants are quoting. Allowable values are: <table border="1" data-bbox="868 814 1232 926"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>Buy (Bid)</td> </tr> <tr> <td>S</td> <td>Sell (Ask)</td> </tr> </tbody> </table>	Code	Value	B	Buy (Bid)	S	Sell (Ask)
Code	Value							
B	Buy (Bid)							
S	Sell (Ask)							
Price	Price	Price (inclusive of decimal point) at which NMC market participants had order interest for the given security at the given time.						
OrderReferenceNumber	Order Reference Number	The unique reference number assigned to the new order at the time of receipt						
OrderEntryTimeStamp	Order Entry Time Stamp	Time order was received in the system. Time is in nanoseconds since midnight (E.T.)						
OrderShareQuantity	Order Share Quantity	Total number of shares submitted on original order						
MissedOpportunityShares	Missed Opportunity Shares	Total number of shares missed						
MissedOpportunityCost	Missed Opportunity Cost	Total value of missed opportunities						

Summary File (Daily) and Summary File Month-to-date (Daily)

Field Name	Field Name Detail	Description
Date	Date	Date of report
MPID	MPID	Firm MPID
Port	Port	Port Assigned to the customer
TotalMissedOpportunityShares	Total Missed Opportunities Shares	Total number of shares missed during the time period

Field Name	Field Name Detail	Description
TotalMissedOpportunityCost	Total Missed Opportunities Cost	Total value of missed opportunities during the time period
MeanPercentMissedOpportunityShares	Mean percent of Missed Opportunities Share	Mean of all shares missed as a percentage of share volume invested. Total Missed Opportunity Quantity/ \sum Order Share Quantity
MeanPercentMissedOpportunityCost	Mean percent of Missed Opportunities Cost	Mean of all Missed opportunities as a percentage of dollar volume invested. Total Missed Opportunity Cost/ \sum (Price*Order Share Quantity)