

NYSE Options Execution Report Interface Requirement Specification

NYSE Arca Options
NYSE American Options

Copyright NYSE Group, Inc. 2022 All rights reserved.

This document contains information of value to NYSE Group, Inc. It may be used only for the agreed purpose for which it has been provided. All proprietary rights and interest in this document and the information contained herein shall be vested in NYSE Group, Inc. and all other rights including, but without limitation, patent, registered design, copyright, trademark, service mark, connected with this publication shall also be vested in NYSE Group, Inc. No part of this document may be redistributed or reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from NYSE Group, Inc.

NYSE Group is a registered trademark of NYSE Group, Inc., a subsidiary of Intercontinental Exchange, Inc., registered in the European Union, the United States, and Denmark. NYSE is a registered trademark and marques déposée of NYSE Group, Inc., a subsidiary of Intercontinental Exchange, Inc., registered in the European Union, the United States, Argentina, Australia, Brazil, Canada, Chile, China P. Rep., Colombia, Czech Republic, Ecuador, European Union, Hungary, India, Indonesia, Israel, Japan, Kosovo, Liechtenstein, Malaysia, Mexico, ME, Nicaragua, Norway, Peru, Philippines, Poland, Russian Federation, Serbia, Singapore, South Africa, South Korea, Switzerland, Taiwan, Turkey, Uruguay, Venezuela and Viet Nam. For more information regarding registered trademarks owned by Intercontinental Exchange, Inc. and/or its affiliated companies see <https://www.intercontinentalexchange.com/terms-of-use>.

Other third-party product names used herein are used to identify such products and for descriptive purposes only. Such names may be marks and/or registered marks of their respective owners.

Table of Contents

General Information4
 Background4
 Naming Conventions and Formatting4
 Contact Information5
Execution Report Message Format.....6
 Report Record Format:.....6
Appendices16
 Appendix A: Available Options Output Summary16
 Appendix B: Document Version History19

General Information

Background

This document outlines the message format applicable for report executions that makes up the NYSE Options Execution Report Output product offering for use as books and records. This Execution Report Output is made up of the latest state of all report allocations, including reversals, executed at the NYSE or at an away market. Any corrected trades performed on a T+N basis will be included for the trading day in which the correction occurred.

Customers have a variety of options when subscribing to this output including:

1. **Entering Firm** - available by single MPID or by a Firm CRD number which will then consolidate all MPID's for the Firm into a single output.
2. **Clearing Firm** - available by single Clearing number or by Clearing Firm CRD number which will then consolidate transactions across all Clearing numbers for that Clearing Firm.
3. **Broker MPID** - available for Broker Firms by MPID and includes all trades that contain a Floor Broker Badge for that MPID.
4. **Market Maker** - available by either single Market Maker (MM User CRD) or all Market Makers (MMID's) for entire Firm.
5. **Directed Order Market Maker** - available by either a single Directed Order Market Maker MPID or by CRD which will then consolidate directed order transactions by all MPIDs of the firm into a single Directed order Market Maker output.

Naming Conventions and Formatting

1. Output files will be made available for secure pick-up via Managed File Transfer (MFT).
2. All files will be comma delimited and will not be sorted.
3. Header records will not be provided.
4. Output can be made available for each Options Market.
5. Output files are named according to the Convention below:
 - a. <MIC>_EXECUTION_<Filter>_<RptType>_<MFTID>_YYYYMMDD_Vx_<FileNumber>.dat.gz
 - i. Where MIC = ARCO for Arca and AMXO for Amex.
 - ii. 4-character file number will always be provided starting at 0001. When record count exceeds 100k to 125k, file number will automatically be incremented by 1 (e.g., 0002, 0003) and be placed in MFT folder.
 - b. Entering Firm by Firm (CRD):
 - i. ARCO_EXECUTIONS_EF_<CRD>_<MFTID>_YYYYMMDD_Vx.<0001>.dat.gz
 - c. Entering Firm by MPID:
 - i. ARCO_EXECUTIONS_EF_<MPID>_<MFTID>_YYYYMMDD_Vx.dat.<0001>.dat.gz
 - d. Clearing Firm by Firm (CRD):
 - i. ARCO_EXECUTIONS_CF_<CRD>_<MFTID>_YYYYMMDD_Vx.<0001>.dat.gz
 - e. Clearing Firm by Clearing#:
 - i. ARCO_EXECUTIONS_CF_<Clearing#>_<MFTID>_YYYYMMDD_Vx.<0001>.dat.gz
 - f. Market Maker Firm (CRD):

- i. ARCO_EXECUTION_MM_<CRD>_<MFTID>_YYYYMMDD_Vx_<0001>.dat.gz
 - g. Market Maker CRD(MMCRD):
 - i. ARCO_EXECUTION_MM_<MM CRD>_<MFTID>_YYYYMMDD_Vx_<0001>.dat.gz
 - h. Broker MPID:
 - i. ARCO_EXCEUTION_BF_<MPID>_<MFTID>_YYYYMMDD_Vx_<0001>..dat.gz
 - i. Directed Order Market Maker by MPID:
 - i. AMXO_EXECUTION_DO_<Directed Order MM MPID>_<MFTID>_YYYYMMDD_Vx.<0001> dat.gz
 - j. Directed Order Market Maker Firm (CRD):
 - i. AMXO_EXECUTION_DO_<CRD>_<MFTID>_YYYYMMDD_Vx.<0001> dat.gz
6. As new enhancements are made to these outputs, customers may expect to receive both current and new versions in their MFT folder. All new versions will be tagged with a version number which will then allow the customer to migrate to the new file format when ready. Advance notification of dates will be provided with a minimum of 30 day notice dependent upon size and scope of changes.
- a. After the migration timeframe has expired, customers will see only the latest version in their folders.
7. The maximum number of fields supported on the NYSE Execution Report Output is 65. ACL and RALC events will be normalized to support the max length and if not applicable will display as comma separated and may be ignored.
8. Output Files will be made available after 11 p.m. daily.

Contact Information

Firms may request to subscribe to any of the outputs by contacting NYSE-CustomerOutput@theice.com.

Execution Report Message Format

Report Record Format:

The same record format will be used for both reports and report corrections as detailed below.

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|------------|--------------------|-------------|---|
| 1 | Event Type | Record Identifier | String (10) | <p>ALC = Allocation RALC = Reverse Allocation</p> <p>For Trade Date, customers will receive only ALC records with final state of the trade.</p> <p>If a previous trade is busted on subsequent trade day, customers will see an RALC record for the entire trade amount and can match to the prior day trade by using a combination of Original Trade Date and Deal #.</p> <p>If a previous trade is corrected on a subsequent trade day, Customers will receive a new ALC event record with updated trade details. Customers can match to prior day trade by using Original Trade Date and Original Reference Deal Number.</p> |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|--------------------------------------|---|-----------------------------|---|
| | | | | For T + N (correction and bust) execution submitted to OCC as Original trade so side are flipped. Execution Report Output will be same as OCC report. |
| 2 | Event Timestamp | Trade Timestamp | YYYYMMDD HHMMSS.ssssssss | |
| 3 | Ref Exec Timestamp | Time of trade execution by the Matching Engine. | YYYYMMDD HHMMSS.ssssssss | |
| 4 | Original TradeDate | Original trade date for an execution | YYYYMMDD | This field provides the Original trade date and is relevant for allocations and corrections done after the trade-date. |
| 5 | Source Exchange | MIC code to identify the market. | String (24) | ARCO =ARCA Options AMXO = AMEX Options |
| 6 | CSG Clearance Seq Number | Unique identifier assigned by Exchange and passed on to the OCC. | Integer(38) | |
| 7 | Root Symbol | OSI Root symbol. | String(6) | |
| 8 | Underlying Symbol | Underlying Ticker Symbol of the Series in ARCA ComStock Symbology. | String(8) | |
| 9 | Client Order ID | Order ID assigned by the firm | Integer(32) | |
| 10 | Pub Order ID | Exchange assigned unique Order ID | Integer(38) | |
| 11 | Parent (Original) Pub Order ID Order | Exchange assigned unique Order ID assigned to the first or original Order in a Cancel/Replace chain of events | Integer(38) | |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|-----------------------|---|----------------|---|
| 12 | Expiration Date | Series Expiration Date | YYYYMMDD | |
| 13 | Put Call | Indicates whether an option contract is a put or call. . | String(1) | 1 = Call 0 = Put |
| 14 | Strike Price | Strike price of the option. | Decimal (22,8) | |
| 15 | Side | Side provided on the order | String(1) | 1 = Buy 2 = Sell |
| 16 | Order Type | Order Type provided on the order | String(1) | 1 = Market 2 = Limit 3 = Stop 4 = Stop Limit 9 = Auto Match |
| 17 | Deal Number | Unique Deal Number assigned to the execution by the matching engine. | Integer(38) | |
| 18 | Parent Deal ID | Parent Deal ID retained through the lifecycle of the trade. | Integer(20) | |
| 19 | Original Ref Deal ID | Trade ID assigned by the exchange that can be used to identify all transactions relating to an original order.(Universal Trade Id) | Integer(20) | |
| 20 | SenderSubID | MMID or Away MMID identified on the Order. | String(32) | |
| 21 | LinkID | <p>Unique ID of the single leg or complex Order or Cancel/Replace request, as assigned by the firm.</p> <p>This field is to be used to link FLEX and/or Cabinet orders to other standard, FLEX and/or Cabinet orders.</p> <p>The ID should be the same for all orders and legs of the package</p> | Integer(20) | |
| 22 | Order Firm Identifier | Firm Identifier or MPID on the trade. | String (4) | |
| 23 | Broker OMS ID | Entering Floor Broker MPID | String (4) | |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|----------------------------|--|----------------|--|
| 24 | Market Maker Quote | Quote Type/Interest Type from the order. | String (1) | 1 = Options Market Maker Quote (MMQ) |
| 25 | Order Qty | Number of contracts ordered. | Integer (38) | |
| 26 | Exec Quantity | Execution quantity | Integer (38) | |
| 27 | Action Flag | Flag which indicate the state of the allocation | String (1) | Blank = New Trade B = Bust R = Readd |
| 28 | Execution Price | Price the trade executed at. | Decimal (22,8) | |
| 29 | Execution Instructions | Execution instructions provided on the order. | String (1) | f = ISO G = All or None N = Non-displayed (Retail Price Improvement and Limit-Non Displayed orders) |
| 30 | Extended Exec Instructions | Extended execution instructions provided on the order. | String (1) | Applicable to Single-Leg: 8 = Imbalance Offset N = Add Liquidity Only (Non-Taking ALO) Applicable to Complex Only: C = Complex Order Auction Applicable to Floor Trades: O = Open Outcry B = Clear the Book |
| 31 | Routing Instructions | Routing instructions provided on the order. | String (1) | Applicable to Single-Leg: N = Non Routable R = Routable 8 = Minimum Fill (must be entered with Min Qty tag populated with a non-zero value) |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|---------------------|--|-------------|---|
| | | | | Applicable to Complex Only: C = Complex Book Only (non-legging Complex Order) |
| 32 | OpenClose | Indicates status of Client's position in the Option | String (1) | C = Close O = Open |
| 33 | Spread Amount | Identifies whether the series in the underlying symbol trades in penny, penny/nickel or nickel/dime. | String (1) | 0 = Penny 1 = Penny/Nickel 5 = Nickel/Dime |
| 34 | CustomerOrFirm | Capacity of the order. | String (1) | 0 = Customer 1 = Firm 2 = Broker Dealer 3 = Market maker 4 = Away Market Maker 8 = Professional Customer |
| 35 | Clearing Number | OCC clearing number. | String (5) | |
| 36 | Directed Order MMID | Options Market Maker MPID for Directed MM Order (Amex Only) | String (5) | |
| 37 | CMTA | Clearing number of CMTA. | String (5) | |
| 38 | Optional Data | Optional data provided on order. | String (16) | |
| 39 | Liquidity Indicator | This value represents the conditions under which an order was executed and whether it added or removed liquidity from the Exchange order book. Used for determining Billing Rates. | String (5) | For complete list of valid values, refer to Appendix A. |
| 40 | Auction Type | Indicates if trade was done as part of an auction. | String (1) | 1 = No Auction 2 = Core Auction 4 = Reopening Auction |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|------------------------------|--|-------------|---|
| 41 | SpecialOrdType | Further defines the type of cross on incoming order. | Integer(2) | ARCA and AMEX 9 = Cabinet 10 = QCC AMEX only 5 =Price Improvement CUBE 6 = Facilitation CUBE 7 = AON CUBE (Solicitation) 11 = Customer to Customer Cross |
| 42 | Exposed/Covered | Identifies the Exposed and Covered Side of each order in the Cross | String (1) | E = Exposed C = Covered |
| 43 | Account | Optional customer data. | String (16) | |
| 44 | TimeInForce | TimeInForce on the Order. | String (1) | 0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK 5 = GTX |
| 45 | Contra Order Firm Identifier | Contra firm id on the trade | String (4) | Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 46 | Contra CMTA | Contra party clearing number of CMTA. | String (5) | Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 47 | Contra SenderSubID | Contra Party MMID or Away MMID | String (4) | Directed Order MM Output: <blank> if the Directed order market maker is not the |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|-----------------------------|--|------------|---|
| | | | | contra on the trade. |
| 48 | Contra Broker OMS ID | Contra Party Entering Floor Broker MPID | String (5) | Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 49 | Contra Order CustomerOrFirm | Contra party capacity of the order | String (1) | 0 = Customer 1 = Firm 2 = Broker Dealer 3 = Market maker 4 = Away Market Maker 8 = Professional customer Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 50 | Contra Clearing Number | Contra OCC clearing number . | String (5) | Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 51 | Contra OpenClose | Indicates status of Contra Client's position in the Option | String (1) | O = Open C = Close Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|----------------------------|--|------------|---|
| 52 | Contra SpecialOrdType | Identifies the Special order type on contra side | String (1) | ARCA and AMEX 9 = Cabinet 10 = QCC AMEX only 5 =Price Improvement CUBE 7 = AON CUBE (Solicitation) 11 = Customer to Customer Cross Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 53 | Contra Exposed/Covered | Identifies the Exposed and Covered Side of each order in the Cross | String (1) | E = Exposed C = Covered Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 54 | Contra TimeInForce | TimeInForce on the Contra Order. | String (1) | 0 = Day 1 = GTC 2 = At the Opening 3 = IOC 4 = FOK 5 = GTX Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |
| 55 | Contra Liquidity Indicator | This values represent a condition under which an order was executed and whether it added or removed liquidity from Exchange order book. Used for determining billing rate. | String (1) | Directed Order MM Output: <blank> if the Directed order market maker |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|--------------------------------------|--|------------|---|
| | | | | is not the contra on the trade. |
| 56 | OnBehalfOfSubID | SubID sent on an order-by-order basis. | String (4) | |
| 57 | Attributed Quote (BOLD Instructions) | Bold Instructions sent on an order-by-order basis or the default BOLD instructions configured by the customer. | String (1) | 4 = BOLD - Expose order info only 5 = BOLD - Expose order info and Capacity only 6 = BOLD - Expose order info and Participant ID only 7 = BOLD - Expose order info, Capacity and Participant ID 8 = Do not BOLD |
| 58 | ClientID | Default Client ID configured by the customer. | String (4) | |
| 59 | Reserved for future use | Reserved for future use | Null | |
| 60 | Reserved for future use | Reserved for future use | Null | |
| 61 | Reserved for future use | Reserved for future use | Null | |
| 62 | Reserved for future use | Reserved for future use | Null | |
| 63 | Reserved for future use | Reserved for future use | Null | |
| 64 | Security type | Security Type to differentiate Complex series vs. Outright events. | String(4) | OPT - Outright Option |

| No | Field Name | Field Descriptions | Format | Valid Values |
|----|----------------------|---|-----------|---|
| | | | | MLEG - Complex Option |
| 65 | Contra Security type | Security Type on the contra-side to differentiate Complex series vs. Outright events. | String(4) | OPT - Outright Option MLEG - Complex Option Directed Order MM Output: <blank> if the Directed order market maker is not the contra on the trade. |

Appendices

Appendix A: Available Options Output Summary

| # | Output | Available Markets | Available Subscriptions | Contents |
|---|--------------------------------------|--|--|--|
| 1 | NYSE Options Execution Report Output | NYSE Arca Options NYSE American Options | Outputs will be made available for one or more MPID's for Entering Firms, one or more clearing numbers for Clearing Firms, by Broker Firm MPID or by MMID for Market Making Firms. | This execution report output summarizes all report allocations, including reversals and corrections, executed at the NYSE or at an away market. Any corrected trades performed on a T+N basis will be included for the trading day in which the correction occurred. |
| 2 | NYSE Options GTC Order Report Output | NYSE Arca Options NYSE American Options | Outputs will be made available for one or more MPID's for Entering Firms only. | This order output includes all GTC orders at the end of the day that will carry over to the next day trading. This file will not include GTC orders expiring on account of Series expiration at the end of the trading day. Note: This file is produced before the nightly corporate action process and therefore may include GTC orders that are set to be canceled overnight on account of a corporate action. |
| 3 | NYSE Options Risk Report Output | NYSE Arca Options NYSE American Options | Outputs will be made available for one or more MPID's for Entering Firms, one or more clearing numbers for Clearing Firms, or by MMID for Market Making Firms. | This output includes information on risk controls including firm defined pre-set risk thresholds, breaches and any associated actions taken to resolve such as blocking of new orders, or order cancelations. |

| # | Output | Available Markets | Available Subscriptions | Contents |
|---|---|--|---|--|
| 4 | NYSE Options Gateway Metric Report | NYSE Arca Options NYSE American Options | Outputs will be made available for Entering Firms at Firm CRD level only. | This output summarizes daily Options Gateway performance at end of day. |
| 5 | NYSE Options Unified Market Maker Report | NYSE Arca Options NYSE American Options | Outputs will be made available for either a single MMID or Market Maker Firm CRD level. | <p>This output provides Market Makers with a daily, month to date or quarterly view (NYSE American Options only) of Market Maker performance.</p> <p>As part of this output, Market Makers may also subscribe to a daily list of all active symbols currently subscribed to as a Market Maker.</p> |
| 6 | ARCA Options Customer Posting Tier Report | NYSE Arca Options | Outputs will be made available for Entering Firms at Firm CRD level only. | This output provides a daily summary of month to date customer volumes in order for a Firm to track/measure how they are performing in order to meet the customer billing tiering programs. |
| 7 | Arca Options Market Maker Posting Tier Report | NYSE Arca Options | Outputs will be made available for Market Maker level at Firm CRD level only. | This output provides a daily summary of month-to-date Market Maker eligible volumes against Market Maker thresholds for achieving monthly tiers for posting credits and take discounts. |
| 8 | Arca Options Customer CAP Report | NYSE Arca Options | Outputs will be made available for Entering Firms at Firm CRD level only. | This output is generated daily and provides customers with month to date information on how a Firm is tracking towards their cap per month on combined Firm Proprietary Fees and Broker Dealer Fees. |
| 9 | NYSE Options Firm Executive Volume Summary Report | NYSE Arca Options NYSE American Options | Outputs will be made available for at Firm CRD level only. | This output is produced monthly, on the first business day of the month, and provides a |

| # | Output | Available Markets | Available Subscriptions | Contents |
|----|---|--|---|--|
| | | | | volume summary over a rolling 13-month time window. Customers have 3 different summary reports that can be subscribed to with varying levels of summary data. |
| 10 | NYSE Options Market Maker Rank Report | NYSE Arca Options NYSE American Options | Outputs will be made available for at MM Firm CRD level only. | This output is generated daily and provides month to date (ARCA) or quarter to date (AMEX) information and allows MM Firm to evaluate their performance against their peers by Symbol daily. |
| 11 | AMEX Options Customer Posting Tier Report | NYSE American Options | Outputs will be made available for Firms at Firm CRD level only. | This output provides a daily summary of month to date customer volumes in order for a Firm to track/measure how they are performing in order to meet the customer billing tiering programs. |
| 12 | AMEX Options Market Maker Posting Tier Report (Sliding Scale) | NYSE American Options | Outputs will be made available for Market Maker level at Firm CRD level only. | This output provides a daily summary of month-to-date Market Maker eligible volumes against Market Maker thresholds for achieving monthly tiers Sliding Scale program. |
| 13 | AMEX Options Customer CAP Report | NYSE American Options | Outputs will be made available for Firms at Firm CRD level only. | This output is generated daily and provides customers with month to date information on how a Firm is tracking towards their cap per month on combined Firm Proprietary Fees and Broker Dealer Fees. |
| 14 | NYSE American Options MTD CUBE Volume Summary Report | NYSE American Options | Outputs will be made available for any firm and provides exchange wide stats. | This output is generated daily and provides daily and month to date exchange wide CUBE order stats and volumes at the Underlying Symbol level. |
| 15 | NYSE Options Electronic and Outcry Volume Report | NYSE Arca Options NYSE American Options | Outputs will be made available for any firm and provides exchange wide stats. | This output is generated daily and provides daily and month to date exchange wide electronic and outcry trade stats and volumes at the Underlying Symbol level. |
| 16 | NYSE Options Complex Volume Summary Report | NYSE Arca Options NYSE American Options | Outputs will be made available for any firm and provides exchange wide stats. | This output is generated daily and provides daily exchange wide Complex volumes, Orders and Series stats at the Underlying Symbol level. |

| # | Output | Available Markets | Available Subscriptions | Contents |
|----|--|--|--|---|
| 17 | NYSE Start of day Session Config Output. | NYSE Arca Options NYSE American Options | Outputs will be made available at Firm CRD level only. | This output is generated daily at start of day and provides the session level preferences configured by customers for their sessions. |

Appendix B: Document Version History

| Date | Version Number | Change Summary |
|------------|----------------|--|
| 05/18/2023 | 2.0 | Directed Order Market Maker executions output introduction on AMEX Options. Introduction of 3 new fields on all filter types/entitlements of the options executions output using the Reserved fields (market data fields that were descoped in the previous version). |
| 02/17/2023 | 1.4 | Market data fields (NBBO and ARCA BBO) #56 - #63 on this report will no longer be supported and shall be marked as reserved for future use. |
| 3/29/2022 | 1.3 | Added Buy and Sell Security Type fields at the end of the Execution report output. Updated New Logo. |
| 2/22/2022 | 1.2 | Updated Format/ datatype for fields : CSG Clearance Seq Number (6), Client Order ID (9), Pub Order ID(10) Updated Valid Values for fields: Market Maker Quote (24), Action Flag (27), Auction Type (40) Updated file naming convention: 4 character file number will always be provided starting at 0001 |
| 11/18/2021 | 1.1 | EF output update for MPID entitlement "Put call" field will have value 0 and 1 instead of P and C |
| 7/15/2021 | 1.0 | Initial publication |