

Drop Copy FIX Specification

For NYSE Arca

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NYSE Arca, Inc..

100 South Wacker Drive, Suite 2000

Chicago, IL 60606

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Preface

Document Control

Date	Revision	Change Made by:	Synopsis of Change
February 19 th , 2008	1.0	Marc Abend	Initial Document
July 14 th , 2008	1.1	Marc Abend	Updated liquidity Indicator values
October 15 th , 2009	1.2	Marc Abend	Updated features and table fields

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1 FIX Drop Copy Process

1.1 Drop Copy Overview

This document describes the features and message formats of the NYSE Arca FIX Drop Copy process.

Client FIX Drop Sessions can be configured to connect with FIX 4.0, 4.1, or 4.2, however, execution reports dropped will be in FIX 4.0 format, regardless of connectivity FIX Version.

1.2 Configurable Features

In addition to the regular execution report tags sent back on FIX drop copy reports, the following is also configurable per FIX Drop Session:

Additional Tags:

- 1. ClOrdID
- 2. ExecBroker
- 3. SymbolSfx
- 4. Options Tags (Configurable on the session if execution reports for Option Trades will be dropping over the session)
- 5. Bonds Tags (Configurable on the session if execution reports for Bond trades will be dropping over the session)
- 6. Additional Fields (Tags 40, 57 and 59)
- 7. Account (This has several settings that can be configured)
 - Not sent (Default)
 - Sends Tag 1 value from our database
 - We can enable the session to pass through the Tag 1 value from the original execution report.

Note: Only one of the above ACCOUNT configurations can be active on the FIX Drop session.

Drop Suppression

- SUPPRESS BY LAST MARKET When this feature is enabled, we can suppress drop copy reports for any Tag 30 Value you wish not to receive drops for. (Example: If you do not wish to see Bulletin Board Executions on your drop session, you can ask us to enable this property with the LastMkt value of BB, which will suppress any execution report with Tag 30 equaling BB)
- SUPPRESS ODDLOTS When this feature is enabled, all Unsolicited "Oddlot Fill" Execution Reports will be suppressed from being sent back to the customer. Used for Oddlot Dealers and Market Makers.

Other Features and Configurations

- ODDLOTS ONLY If enabled, only Unsolicited "Oddlot Fills" will be dropped over the FIX Drop Copy Session. Used for Oddlot Dealers and Market Makers.
- SEQUENTIAL EXECID If enabled, Tag 17 value on each execution report dropped will be in sequential order.

If you need any of these configurations added to your drop session, please e-mail <u>connectivity@nyx.com</u> or call our hotline at (888) 689-7739 Option 1.

1.3 FIX Drop Copy Report Message Format

All dropped Execution Reports will be in FIX 4.0 format, regardless of the actual session configuration (whether it be FIX 4.0, FIX 4.1 or 4.2). Additional Tag configurations

In addition to requirements for the standard FIX message header, the following fields will be specified on these messages.

Tag	Field	Description	Req.	<u>Values</u>
	Standard Header		Y	MsgType = 8
1	Account	If this field is present, we copy the information into execution messages referring to this order. This field can be used for clearing information.	C	Depends on requested drop copy session setting. <u>Possible choices:</u> 1 – Not sent (Default) 2 – Sends Tag 1 value from our database 3 – We can enable the session to pass through the Tag 1 value from the original execution report.
6	AvgPx	Indicates Average Price of fills on order	Y	.0001-99999999.9999
11	ClOrdID	ClOrdID behavior defined in Execution Report section	Y	User specified up to 30 characters
14	CumQty	Indicates total quantity of fills on open order	Y	1-999,999
17	ExecID	Execution ID assigned by ARCA	Y	Numerical up to 9 characters (Equities*) *Will change to 20 characters for NYSE Arca Equities when UTP goes live Numerical up to 20 characters (Options)
19	ExecRefID	On trade break or trade correction only	Y	Contains the ExecID (Tag 17) value of the Fill that is broken or corrected.
20	ExecTransType	All execution reports	Y	0=New 1=Cancel (Trade Break Only) 2=Correct (Trade Correction Only)
30	LastMkt	Designates system of execution	Y	P - Equities BB – Bulletin Board PO- Options
31	LastPx	Indicates price of fill	Y	.0001-99999999.9999
32	LastShares	Indicates quantity of fill	Y	1-999,999
37	OrderID	OrderID assigned by ARCA	Y	Numerical up to 9 characters (Equities*) *Will change to 20 characters for NYSE Arca Equities when UTP goes live Numerical up to 20 characters

Tag	Field	Description	Req.	Values
				(Options)
38	OrderQty	Indicates share quantity on order	Y	Up to 999,999
39	OrdStatus	Indicates status of order (Fix 4.0) or Indicates status or message (Fix 4.1and 4.2)	Y	1=Partially Filled 2=Filled
40	OrdType	Indicates order type of order	Y	1=Market 2=Limit 3=Stop 4=Stop Limit 7= Limit or Better
44	Price	Indicates price on order in decimals.	Y*	0-99999999.9999 (Limit order only)
50	SenderSubID	Client will receive value specified in TargetSubID on order.	Y	ARCA
52	SendingTime	Time sent by ARCA	Y	Time specified in UTC time. YYYYMMDD-HH-MM-SS
54	Side	Buy, Sell, or Sell Short	Y	1=Buy 2=Sell
55	Symbol	This field must contain a valid symbol in upper case lettering.	Y	OCC Option Series Underlying or Equities Ticker Symbol
57	TargetSubID	Client will receive value specified in SenderSubID on order.	Y (C)	User Specified up to 10 characters (Required if specified on the original order)
58	Text	Additional description of message	Y	1=Partially Filled 2=Filled
59	TimeInForce	If a value is not present in this field, the default is Day.	N	0=Day 2=At the Opening 1=GTC 3=IOC 4=FOK 6=GTD
60	TransactTime	Indicates time of transaction on ack or fill	Y	Time specified in UTC time. YYYYMMDD-HH-MM-SS
65	SymbolSfx	This field must contain a valid symbol in upper case lettering.	N	Valid Suffix value (Returned if used on original order, or if Comstock symbol is used in Tag 55 on Original Order)
76	ExecBroker	Indicates Executing Broker	N	This will get passed back only if the echo drop session has this tag enabled.
77	OpenClose	Indicates status of client position in the option.	Y	O=Open C=Close (Options Drops Only)

<u>Tag</u>	<u>Field</u>	Description	Req.	Values
99	StopPx	Set to dictate stop price on	Y	.01-99,9999
		stop orders		(Options Drops Only)
128	DeliverToCompID	Configurable on drop session filter	N	By default "ARCA". Configurable to another value per client request.
129	DeliverToSubID	Configurable on drop session filter	N	By default "ARCA". Configurable to another value per client request.
150	ЕхесТуре	Indicates status of order (FIX 4.1 and 4.2 only)	Y	1=Partially Filled 2=Filled
151	LeavesQty	Indicates open shares remaining on order	Y	1-999,999
167	SecurityType	Identifies type of instrument.	Y	OPT= Options
				(Options Drops Only)
200	MaturityMonth	Indicates Maturity Month	Y	YYYYMM
				(Options Drops Only)
201	PutOrCall	Indicates Put or Call	Y	0=Put
				1=Call
				(Options Drops Only)
202	StrikePrice	Indicates Strike Price	Y	0 – 99999999.9999
				(Options Drops Only)
205	MaturityDay	Indicates Maturity Day for series with more than one expiration date in a month.	N	DD
				(Options Drops Only)
				Beginning 2/12/2010, this field will be sent on Drop Copies.
526	Optional Data	Customer Defined Identifier used for clearing purposes.	Y	Up to 16 Characters – Alpha Numeric
				(Options Drops Only)
9730	LiquidityIndicator	This will get passed back on the drop only if the originating order session has the feature enabled.		 A = Liquidity Adding B = Liquidity Adding while the order was not displayed R = Liquidity Reducing O = Liquidity Neutral – Orders executed in an auction X = Routed to another venue F = Routed to NYSE where the order was liquidity adding at NYSE* N = Routed to NYSE where the order was liquidity taking at NYSE C = Routed to NYSE where the order participated in the opening or re- opening*
9731	DBExecID	Is populated by a numeric ID that is generated by the Equities (Listed and OTC) Exchanges. Both sides of the trade have the same ID.		This will get passed back on the drop only if the originating order session and drop copy session have the feature enabled.
	Standard Footer		Y	