Information Memo



11 Wall Street New York, NY 10005

Trading Technology

August 1st, 2008

TO: All Members, Member Organizations and Vendors Interfacing with the

Common Message Switch (CMS) or Common Customer Gateway (CCG)

SUBJECT: NYSE Alternext U.S. (NYSE/Amex Integration) – FIX Message Formatting

Technical Differences

Route To: Technology and Operations Officers

As previously announced in the July 7th Information Memo titled 'NYSE Alternext U.S. (NYSE/Alternext Integration) – Trading Systems Update', member firms were informed that Amex Equities will be migrated onto the NYSE Trading Platform in the September 2008 timeframe. The Amex Auction and Electronic Market Integration system (AEMI) currently supports FIX protocol version 4.4. Upon completion of the Amex Equities migration to the NYSE Trading platform, incoming FIX messages must conform to the current NYSE Fix 4.2 specification or NYSE FCS protocol formats. The outline below briefly summarizes the protocol and/or functionality differences between Amex and the NYSE that may require system changes prior to the integration of the two trading platforms. For more detailed information regarding NYSE version FIX 4.2, please refer to the NYSE FIX Specification version 3.5.1 on our website.

Protocol

- 1. CMS supports both FCS and NYSE FIX 4.2 protocol formats.
- 2. CMS will continue to support the message routing of Amex Structured Products and ETF's to the AEMI system in FCS protocol only and they must be designated with the Amex Exchange code when Line 1A is used.
- 3. CCG will only support NYSE FIX 4.2 protocol. CCG will not support message routing for Amex Structured Products and ETF's to the Amex Trading Platform (AEMI).

General

- 1. The Cross Order type is not supported.
- 2. Status inquiries are not supported by CCG.
- 3. FIX message type J, Business Message Reject, is not supported.

- 4. CMS will support the Amex, NYSE or "blank" as a valid Exchange code on incoming messages. CCG will support the Amex ("A") or NYSE ("N") as a valid Exchange code on incoming messages in required tag 207 SecurityExchange.
- 5. CMS and CCG will return an NYSE Exchange code on all activities against NYSE Alternext equity orders.
- 6. NYSE only supports alpha Account Type designations.
- 7. Time in Force of FOK (Fill or Kill) is not supported.
- 8. The All or None (AON) order designation is not supported.
- 9. Stop Limit orders are not supported.
- 10. Sell Short Exempt order instruction is not supported.

FIX Message Formatting Differences

A. Session Level

The following tag is required on Logon (message Type "A") in NYSE Fix 4.2.

Message Tag	Supported by Amex	Supported by NYSE	Comments
FIX Tag 98 – EncryptMethod	Y	Y	Required field in NYSE Fix 4.2.

B. Order, Cancel & Cancel/Replacement Messages

The following describes the NYSE FIX 4.2 tags that are required and the current Amex FIX 4.4 Tags that are not supported by NYSE with their FIX 4.2 tag equivalents on incoming orders (message type "D"), cancels (message type "F"), and cancel with replacement (message type "G") messages if applicable.

Message Tag	Supported by Amex	Supported by NYSE	Comments
Tag 207 – SecurityExchange	N	Y	NYSE Mandatory for CCG. Not required for CMS FIX.
Tag 11 - ClientOrdID	N	Y	The format is "BBB^NNNN/MMDDYYYY", where ^ represents a blank space. Firm is responsible for uniqueness
Tag 37 - OrderID	N	Y	The format is "BBB^NNNN/MMDDYYYY", where ^ represents a blank space.
Tag 41 – OrigClOrdID	N	Y	The format is "BBB^NNNN/MMDDYYYY", where ^ represents a blank space.
Tag 21 – HandInst	N	Y	Required on orders with the value "1" indicating automatic operation.
Tag 18 – ExecInst	Y	Y	The following values are not supported by NYSE Fix 4.2: "1" Not Held "f" ISO - NYSE FIX 4.2 equivalent tag is 9487 –

			RoutingInstruction, value
			"ISO".
			• "g" Outbound Routing
			Allowed - NYSE FIX 4.2
			equivalent tag is 9487 –
			RoutingInstruction, value
			"DNS" indicating that the
			order should <u>not</u> be shipped to
			away markets for execution.
Tag 40 – OrdType	Y	Y	The following values are not
- 1.8 1.4 - 1.1.2 JF 1			supported by NYSE Fix 4.2:
			• "4" Stop Limit
			• "7" Limit or Better
Tag 54 – Side	Y	Y	The following values are not
1 ag 34 – Side	1	1	_
			supported by NYSE Fix 4.2:
			• "6" Sell Short Exempt
Tag 57 – TargetSubID	Y	Y	The following values are not
			supported by NYSE Fix 4.2:
			■ "BARS"
			NYSE FIX 4.2 equivalent tag is
			143 – TargetLocationID, 2
			character alpha/numeric
Tag 58 - Text	Y	Y	NYSE FIX 4.2 supports up to 25
			characters of miscellaneous text.
Tag 59 – TimeInForce	Y	Y	The following values are not
			supported by NYSE Fix 4.2:
			• "FOK"
Tag 452 – PartyRole	Y	N	No equivalent tag/value supported
			in NYSE FIX 4.2.
Tag 453 – NoPartyIDs	Y	N	No equivalent tag/value supported
	-	1	in NYSE FIX 4.2.
Tag 448 – PartyID	Y	N	No equivalent tag/value supported
	•	1,	in NYSE FIX 4.2.
Tag 552 – NoSides	Y	N	No equivalent tag/value supported
145 332 11001405	1	11	in NYSE FIX 4.2.
Tag 581 – Account	Y	N	Equivalent NYSE FIX 4.2 tag is
Type			47 – Rule 80A.
- 7 P C			Required field on message types
			"D" and "G".
Tag 5092 –	Y	N	No equivalent tag/value supported
CrossVariant	-		in NYSE FIX 4.2.
Tag 5093 –	Y	N	No equivalent tag/value supported
CrossQualifier			in NYSE FIX 4.2.
Tag 5141 –	Y	N	No equivalent tag/value supported
PriceImprovementSide	-		in NYSE FIX 4.2.
Tag 5152 – BoothID	Y	N	NYSE FIX 4.2 equivalent tag is
145 5152 150011111	1	11	143 – TargetLocationID, 2
			character alpha/numeric
Amex User Defined	Y	N	Equivalent NYSE FIX 4.2 tag is
Amea Osci Dellileu	1	17	Equivalent IVI SE TIA 4.2 tag is

Tag 9861 –	11 – ClientOrdId, tag is 37 –
BranchSeqNbr	OrderId and tag is 41 –
	OrigClOrdID

<u>C. Order Acks, Reports and Reject Messages</u>
The following describes the NYSE FIX 4.2 tags that are required and the current Amex FIX 4.4 Tags that are not supported by NYSE with their FIX 4.2 tag equivalents on FIX order acknowledgments, rejects and execution reports messages (message type "8") if applicable.

Message Tag	Supported by	Supported by NYSE	Comments
Tag 6 – AvgPx	Y	Y	Returned in NYSE FIX 4.2 but with a value of zero.
Tag 14 – CumQty	Y	Y	Returned in NYSE FIX 4.2 but with a value of zero.
Tag 35 – MsgType	Y	Y	The following values are returned in NYSE Fix 4.2: For session level reject messages, the value of "3" is returned. For order acks, reports and reject messages, the value of "8" is returned. For cancel reject messages, the value of "9" is returned.
Tag 37 - OrderID	N	Y	The format is "BBB^NNNN/MMDDYYYY", where ^ represents a blank space.
Tag 41 – OrigClOrdID	N	Y	Not returned in NYSE FIX 4.2 for execution report messages.
Tag 150 – ExecType	Y	Y	The following values are not supported by NYSE Fix 4.2: "F" Trade "H" Trade Cancel
Tag 274 – TickDirection	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 378 – ExecRestatementReason	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 452 – PartyRole	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 453 – NoPartyIDs	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 448 – PartyID	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 549 – CrossType	Y	N	No equivalent tag/value supported in NYSE FIX 4.2.
Tag 581 – Account	Y	N	Equivalent NYSE FIX 4.2 tag is

Type			47 – Rule 80A.
Tag 820 – TradeLinkID	Y	N	NYSE FIX 4.2 equivalent tag is
			9483 – DBKLINKID, 6
			character numeric
Tag 911 –	Y	N	No equivalent tag/value
TotNumReports			supported in NYSE FIX 4.2.
Tag 5092 –	Y	N	No equivalent tag/value
CrossVariant			supported in NYSE FIX 4.2.
Tag 5093 –	Y	N	No equivalent tag/value
CrossQualifier			supported in NYSE FIX 4.2.
Tag 5132 –	Y	N	No equivalent tag/value
ContraOrderOrigin			supported in NYSE FIX 4.2.
Tag 5133 – Omnibus	Y	N	No equivalent tag/value
			supported in NYSE FIX 4.2.
Amex User Defined Tag	Y	N	No equivalent tag/value
9897 – SeriesNo			supported in NYSE FIX 4.2.

If you have any business questions relating to the NYSE Alternext securities integration, please contact your NYSE Relationship Manager or Robert Airo at (212) 656-5663.

For technical questions and/or testing arrangements, please contact our Service Desk at 1-866-873-7422 or send an email to support@nyx.com - please place "NYSE Alternext" in the subject line. A future notification will be provided regarding the detail dates of the migration and plans for industry testing in August.

For customer support regarding FIX connectivity to CCG, please contact our **Connectivity Helpdesk at 1-888-689-7739 or send an email to** <u>connectivity@nyx.com</u> – please place "NYSE Alternext" in the subject line.