CME Group
A CME/Chicago Board of Trade/NYMEX Company

Market Data Platform FIX/FAST

4Q09 Enhancements

Version 1.2

9/21/09

1. Introduction

FIX/FAST market data format, the latest step in CME Group market data, drastically reduces end-to-end latency and improves bandwidth scalability. The new format is based on FIX and FAST protocols for increased efficiency. FIX provides the core message structure and syntax while the FAST protocol increases optimization. FIX/FAST is the basis of a new industry standard for market data.

This document describes several enhancements to MDP FIX/FAST that will be made available according to the schedule listed in "Key Customer Events and Dates", page 1.

For additional on information MDP FIX/FAST, refer to:

www.cmegroup.com/fixfast

1.1 Key Customer Events and Dates

The enhancements will be available for development according to the following schedule:

New Release Environment	Production	Certification
9/13/09	10/18/09	11/1/09

More detailed information on the launch schedule will be announced in the CME Globex Notices; please see www.cmegroup.com/globexnotices. For more information, please contact:

CME Group Globex Account Management (GAM)

312.634.8700 (Chicago)

00 44 207 796 7100 (London)

852.3101.7696 (Asia)

globexaccountmanagement@cmegroup.com

OR

Certification Support for Electronic Trading (CSET)

+1 312 930 2322

email: cset@cmegroup.com

1.2 Testing and Certification Requirements

While Certification is not required for these enhancements, thorough testing is strongly recommended.

The open interest, cleared volume, and fixing price enhancements in this document will be available for testing only in Production and in Certification. For specific dates, refer to “Key Customer Events and Dates”.

1.3 Client System Impact Summary

Please see the applicable sections within this document for a detailed description of these and additional system impacts.

- "Template Modification", page 3
- "Security Definition (tag 35-MsgType=d) Message Enhancements", page 3
- "Market Data Snapshot Full Refresh (tag 35-MsgType=W) Message Enhancements", page 5

2. MDP FIX/FAST Enhancements

This section describes the MDP FIX/FAST enhancements available with this release.

2.1 Template Modification

FIX/FAST is a template-based protocol. As a result, messages can only be interpreted using a template, and client systems must implement templates in MDP FIX/FAST. New tags and tag values have been added for this release, so a new template will be made available. Specifically, a new template is available for the changes described in "Security Definition (tag 35-MsgType=d) Message Enhancements", page 3. A new template is not required for the changes described in "Market Data Snapshot Full Refresh (tag 35-MsgType=W) Message Enhancements", page 5.

Note: **To be consistent with FIX protocol for this release, the name of tag 200 in the template was changed from MaturityDate to MaturityMonthYear.**

Refer to the sections below for additional information at:

http://www.cmegroup.com/globex/files/SDKFFCore.pdf

- Section 4: “Template Overview”
- Section 2.1.2: “Services - Template Dissemination and Market Data Configuration”

2.2 Security Definition (tag 35-MsgType=d) Message Enhancements

The following table lists updated and new tags available with this release. These tags were updated or added to enhance the ability for client systems to recover missed data sent on the Market Data Incremental Refresh feeds for settlement prices, open interest, and cleared volume as this data will, with this release, be recorded to the Security Definition (tag 35-MsgType=d) Message for each instrument on the Instrument Definition feed. .

Table 2.1. Security Definition (tag 35-MsgType=d) Message

Tag Number	Tag Name	Valid Value	Format	Description
5796	TradingReferenceDate		LocalMktDate (8)	Indicates the date the last update to the settlement price (tag 1150-TradingReferencePrice) was updated in this message in YYYYMMDD format. Absence of this field indicates current day (expressed in local time at place of trade).
5792	OpenInterestQty		Qty (12)	Indicates the total open interest for the market at the close of the prior trading session.
5791	ClearedVolume		Qty (12)	Indicates the total cleared volume of instruments traded during the prior trading session.

2.2.1 Settlement Price Enhancement (tag 5796-TradingReferenceDate)

Settlement price is updated throughout the trading week. Client systems can leverage the Security Definition (tag 35-MsgType=d) Message to recover the last published settlement price for an instrument. Settlement price updates are initially sent on the Market Data Incremental Refresh (tag 35-MsgType=X) Message on the Market Data Incremental Refresh feed. When an update occurs to the settlement price, it is captured and placed on the Security Definition (tag 35-MsgType=d) Message for each instrument on the Instrument Definition feed. As new settlement prices are published, the date (tag 5796-TradingReferenceDate) and price (tag 1150-TradingReferencePrice) are updated.

On Sunday start, the Security Definition (tag 35-MsgType=d) Message is published initially to the Instrument Definition feeds and the Market Data Incremental Refresh feeds without tag 5796-TradingReferenceDate. The settlement price in tag 1150-TradingReferencePrice is published on Sunday start, but will reflect the last published settlement price from the previous trading week.

2.2.2 Open Interest

Open Interest is sent using Market Data Incremental Refresh (tag 35-MsgType=X) Message data blocks which contain the total number of contracts per instrument that are not yet offset or fulfilled for the previous trading day. They are sent before the start of the trading session. Tag 75-TradeDate will contain the date of the previous trading day. Tag 279-MDUpdateAction will be set to 0 = New and tag 269-MDEntryType will be set to C = Open Interest. Tag 271-MDEntrySize will contain the quantity or volume of the Open Interest.

Open Interest is updated throughout the trading week. Client systems can leverage the Security Definition (tag 35-MsgType=d) Message to recover the last published open interest for an instrument. With this release, on Sunday start, the Security Definition (tag 35-MsgType=d) Message is published initially to the Instrument Definition feeds and the Market Data Incremental Refresh feeds without tag 5792-OpenInterestQty. Once open interest is sent in the Market Data Incremental Refresh (tag 35-MsgType=X) Message, the value of open interest from tag 271-MDEntrySize is placed on the Security Definition (tag 35-MsgType=d) Message in tag 5792-OpenInterestQty and maintained on the Instrument Definition feed only. As open interest updates are disseminated on the Market Data Incremental Refresh feed throughout the week, the value of tag 5792-OpenInterestQty is updated.

Note: **If open interest is ever 0, tag 5792=0.**

2.2.3 Cleared Volume

Cleared Volume data blocks contain the number of contracts that have been through the clearing process for an active instrument for the previous trading day. Tag 75-TradeDate will contain the date of the previous trading day. Tag 279-MDUpdateAction will be set to 0 = New and tag 269-MDEntryType will be set to B = Trade Volume. Tag 271-MDEntrySize will contain the Cleared Volume.

Cleared Volume is updated throughout the trading week. Client systems can leverage the Security Definition (tag 35-MsgType=d) Message to recover the last published cleared volume for an instrument. With this release, on Sunday start, the Security Definition (tag 35-MsgType=d) Message is published initially to the Instrument Definition feeds and the Market Data Incremental Refresh feeds without tag 5791-ClearedVolume. Once cleared volume is sent in the Market Data Incremental Refresh (tag 35-MsgType=X) Message, the value of cleared volume from tag 271-MDEntrySize is placed on the Security Definition (tag 35-MsgType=d) Message in tag 5791-ClearedVolume and maintained on the Instrument Definition feed. As cleared volume updates are disseminated on the Market Data Incremental Refresh feed throughout the week, the value of tag 5791-ClearedVolume is updated.

Note: **If cleared volume is ever 0, tag 5791=0.**

2.3 Market Data Snapshot Full Refresh (tag 35-MsgType=W) Message Enhancements

The following table lists new valid values available with this release.

Table 2.2. Market Data Snapshot Full Refresh (tag 35-MsgType=W) Message

Tag Number	Tag Name	Valid Value	Format	Description
269	MDEntryType	**The following are new values:** 4 = Opening Price W = Fixing Price	Char (1)	Type of Market Data entry.

Fixing Price and Opening Price data blocks are currently available in the Market Data Incremental Refresh (tag 35-MsgType=X) Message and with this release, will be available on the Market Data Snapshot Full Refresh (tag 35-MsgType=W) Message.

The Fixing Price data blocks contain the Fixing Price, a volume-weighted average price for the nearby futures contract of an option. Tag 279-MDUpdateAction will be set to 0 = New and tag 269-MDEntryType will be set to W = Fixing Price.

The Opening Price data blocks contain the Opening Price for the specified instrument.

Revision History

Version	Date	Author	Description
1.0	8/26/09	LM	Initial Release.
1.1	9/18/09	NU	Added a note about tag 200 to "Template Modification", page 3.
1.2	9/21/09	NU	Updated "Testing and Certification Requirements", page 1.