

CME Globex Exchange Specific Functionality

Version: 1.3 6/23/2011

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1. BM&F BOVESPA

This section describes iLink and Market Data functionality required for existing CME Group and Brazilian Mercantile and Futures Exchange/Sao Paulo Stock Exchange (BM&FBOVESPA) customers developing applications for trading BM&FBOVESPA products on CME Globex. New CME Group customers who would like to trade BM&FBOVESPA products must establish all appropriate agreements and accounts to be authorized to trade, as described in the <u>Onboarding Reference Guide</u>.

1.1 Order Entry

This section contains the tag-level client system messaging impacts for iLink order entry that must be accommodated to trade BM&FBOVESPA products on CME Globex.

Summary of Message tag Differences for BM&FBOVSEPA Gateway Functionality

Message	Tags	Description
iLink		
	tag 38-OrderQty	Must contain multiple of tag 562- MinTradeVol from the market data Security Definition (35=d)
New Order (35=D)	tag 11-ClOrdID	Value larger than 20 bytes will be rejected
 New Order (35=D) Order Cancel Replace (35=G) 	tag 55-Symbol	Not validated; pass-thru on ack
• Order Caricer Replace (35=6)	tag 167-SecurityType	Not validated; pass-thru on ack
	tag 210-MaxShow	 Must be less than value in tag 38- OrderQty else rejected. Must be 10x the value in tag 562- MinTradeVol of 35=d message
	tag 41-OrigClOrdID	Must match value in tag 11-ClOrdID
	tag 1-Account	Must be constant throughout order and cancel/replace chain, else rejected
Order Cancel Replace (35=G)	tag 59-TimeInForce	Must be constant throughout order and cancel/replace chain, else rejected.
	tag 110-MinQty	Must be constant throughout order and cancel/replace chain, else rejected.
	Tag 9768-OFMOverride	Must always='Y', else rejected.
	tag 432-ExpireDate	Must not be present, else rejected.
 Execution Report, New Order (35=8, 39-0) Execution Report, Cancel Replace (35=8, 39=5) 	Tag 110-MinQty	Not returned
Execution Report, Fill Notice (35=8, 39=1 or 2)	tag 76-ExecBroker	Identifies executing Brazilian broker
Execution Report, Trade Bust (35=8,	tag 39-OrdStatus	39=4
39=4, 150=H),	tag 150-ExecType	150=H
Execution Report, Order Cancel Acknowledgment (35=8, 39=4)	Tag 41-OrigClOrdID	41=0
Session Level Reject (35=3)	tag 103-OrderRejectReason	99='Network Unavailable'

1.1.1 Session Level Reject (35=3)

In the Session Level Reject (tag 35-MsgType=3) message, receiving an error code of 99, stating "Network Unavailable", indicates that CME Group has lost connectivity with BM&FBOVESPA. If you receive this error code, contact the Globex Control Center (GCC) at 312.456.2391.

1.1.2 New Order (35=D) and Order Cancel Replace (35=G)

BM&FBOVESPA handles some New Order (tag 35-MsgType=D) and Order Cancel Replace Request (tag 35-MsgType=G) tags differently than CME Group, as described in this section.

1.1.2.1 Supported Order Types for BM&FBOVESPA Futures and Options Products

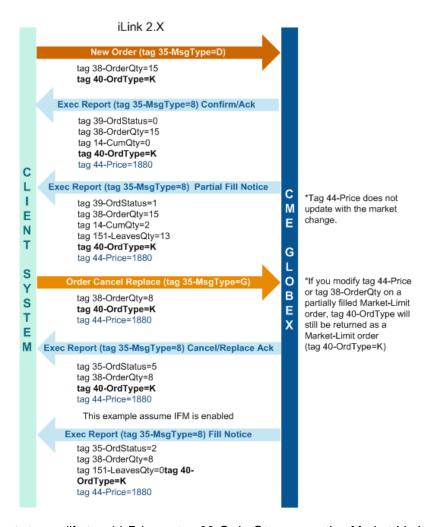
The table below shows available order types and order qualifiers for BM&FBOVESPA products as defined with the New Order (tag 35-MsgType=D) message.

Order Type (tag 40-OrdType)	BM&FBOVESPA Futures	BM&FBOVESPA Options			
2=Limit	$\sqrt{}$	$\sqrt{}$			
4=Stop-Limit	$\sqrt{}$	$\sqrt{}$			
K=Market-Limit	$\sqrt{}$	$\sqrt{}$			
Order Qualifier (tag 59-TimeInForce)					
0=Day/Session	$\sqrt{}$	$\sqrt{}$			
3=Fill and Kill (FAK)	$\sqrt{}$	$\sqrt{}$			

If a Market-Limit order is submitted, accepted, and partially filled, then followed by a Cancel/Replace (tag 35-MsgType=G) message with a modified order quantity (tag 38-OrderQty), tag 44-Price will not reflect the current market price in the Execution Report or in any following messages. Tag 44-Price will stay at the price of the previous order or at the price submitted in the message.

When a Market-Limit order is accepted and partially filled with the remaining quantity (tag 151-LeavesQty) resting on the order book, the remaining quantity acts as a limit order (tag 40-OrderType=2) even though BM&FBOVESPA returns tag 40-OrdType=K.

The following diagram shows an example of a client sending a New Order (tag 35-MsgType=D) message, with CME Globex sending an execution report for Order Confirmation and Partial Fill, with the Client then sending a Cancel/Replace, and CME Globex sending a Cancel /Replace confirmation, before CME Globex reports an execution on a complete Fill.



*If a customer wants to modify tag 44-Price or tag 38-OrderQty on a resting Market-Limit order, the customer should Cancel/Replace to a limit order (tag 40-OrdType=2) with a new value in tag 44-Price or 38-OrderQty. The limit order is acknowledged with a new value in tag 44-Price or tag 38-OrderQty, but the Execution Report (35-MsgType=8) is returned with tag 40-OrdType=K.

Note: For Fill and Kill orders, BM&FBOVESPA does NOT send an Execution Report-Acknowledgement (tag 35-MsgType=8, tag 39-OrdStatus=0) prior to sending the Execution Report - Elimination message, whereas CME Globex does.

1.1.2.2 OrderQty

In all order entry messages, the quantity sent in tag 38-OrderQty must be in multiples of the value in tag 562-MinTradeVol from the Security Definition (tag 35-MsgType=d) message. Currently, all other contracts on CME Globex have a value of 1 in tag 562-MinTradeVol.

1.1.2.3 CIOrdID

If tag 11-CIOrdID is larger than 20 bytes, BM&FBOVESPA will reject the order.

1.1.2.4 Symbol and SecurityType

Both tag 55-Symbol and tag 167-SecurityType are not validated by BM&FBOVESPA. The value submitted in these tags will be returned in the response messages. For non-BM&FBOVESPA instruments

on CME Globex, invalid values submitted in tag 55-Symbol and tag 167-SecurityType are replaced by valid values on the response messages.

1.1.2.5 MinQty

Tag 110-MinQty is not returned in Execution Report (tag 35-MsgType=8) messages, and is not applied in cancel/replace orders.

1.1.2.6 MaxShow

If a New Order (tag 35-MsgType=D) message contains a value for tag 210-MaxShow, this value cannot be greater than or equal to the value in tag 38-TotalQty. If the value of tag 210-MaxShow and tag 38-TotalQty are equal, BM&FBOVESPA sends an Execution Report Reject (tag 35-MsgType=8) message.

Tag 210-MaxShow must be a multiple of the FIX/FAST Security Definition (tag 35-MsgType=d, tag 562-MinTradeVol) message and must be greater than 10 times the value in tag 562-MinTradeVol.

1.1.3 Execution Report – Fill

1.1.3.1 Brazilian Broker Identification

The new tag 76-ExecBroker identifies the executing Brazilian broker for the trade. CME Globex provides this information to customers with fills or partial fills in Execution Report - Fill Notices (tag 35-MsgType=8, tag 39-OrdStatus=1 or 2) from BM&FBOVESPA's party information.

1.1.4 Execution Report – Trade Bust

In the event of a Trade Bust, BM&FBOVESPA sends an Execution Report Order Elimination (tag 35-MsgType=8, tag 39-OrdStatus=4, tag 150-ExecType=H) message, typically CME Globex would have generated an Execution Report Trade Cancellation (tag 35-MsgType=8, tag 39-OrdStatus=H, tag 150-ExecType=H) message.

1.1.5 Execution Report - Order Reject

If the BM&FBOVESPA markets are closed and an order is submitted, the client could receive an Execution Report - Reject (tag 35-MsgType=8) message containing similar text: 58=[0000001] [User [nnn] is not authorized to create Single Order. Order ID: [3] | Security ID: [BMFBR3306279] | Trading Date: [10/06/2008 00:00:00].]

This data indicates that BM&FBOVESPA engines are not accepting orders because the market is closed even though it may appear that it indicates that a previously authorized user may no longer be able to submit an order.

1.1.6 Execution Report - Order Cancel Request

When submitting an Order Cancel Request (tag 35-MsgType=F) containing tag 41-OrigClOrdID, the Execution Report - Order Cancel Acknowledgment (tag 35-MsgType=8) returns tag 41-OrigClOrdID=0.

1.1.7 Order Cancel/Replace Request

If an Order Cancel/Replace Request (tag 35-MsgType=G) is rejected, BM&FBOVESPA generates a Cancel Reject (tag 35-MsgType=9) message. Typically, CME Globex would have generated a Session Level Reject (tag 35-MsgType=3) response or a Cancel Reject (tag 35-MsgType=9) message.

1.1.7.1 CIOrdID

In the Order Cancel Replace Request (tag 35-MsgType=G), tag 11-ClOrdID is the unique ID of a cancel request, up to 20 bytes, as assigned by the customer. BM&FBOVESPA assigns the Order ID or the order the client is trying to cancel as tag 37-OrderID.

1.1.7.2 OrigClOrdID

For an Order Cancel/Replace Request (tag 35-MsgType=G), tag 41-OrigClOrdID will be the value held in the BM&FBOVESPA engine, not the value supplied on the Order Cancel/Replace Request.

For an Order Cancel/Replace Request (tag 35-MsgType=G), if a value for tag 41-OrigClOrdID is submitted, it must match the value submitted in tag 11-ClOrdID or the request will be rejected. The Execution Report - Order Cancel Acknowledgment (tag 35-MsgType=8) message returns tag 41-OrigClOrdID with the same value in the New Order (tag 35-MsgType=D, tag 11-ClOrdID).

1.1.7.3 OrderID

In an Order Cancel/Replace Request (tag 35-MsgType=G) message, if tag 37-OrderID=<space>, BM&FBOVESPA sends an Order Cancel Reject (tag 35-MsgType=9) message. Typically, CME Globex would have generated a Session Level Reject (tag 35-MsgType=3) message.

1.1.7.4 Account

For an Order Cancel/Replace Request (tag 35-MsgType=G) message at BM&FBOVESPA, and order will be rejected if the account (tag1-Account) is changed.

1.1.7.5 TimeInForce

In an Order Cancel/Replace Request (tag 35-MsgType=G) message, if tag 59-TimeInForce equals a different value than the original order, BM&FBOVESPA rejects the message.

1.1.7.6 ExpireDate

If an Order Cancel/Replace Request (tag 35-MsgType=G) contains tag 432-ExpireDate, BM&FBOVESPA rejects the message.

1.1.7.7 MinQty

The minimum quantity (tag 110-MinQty) cannot be modified. This tag is not sent in the Execution Report (tag 35-MsgType=8) messages.

1.1.7.8 Price

If a Cancel/Replace is sent without tag 44-Price, BM&FBOVESPA will accept the Cancel/Replace using the original price. CME Globex requires a price on all Cancel/Replace requests. If a price change is requested, tag 38-OrdQty is required or else BM&FBOVESPA rejects the request.

1.1.7.9 In Flight Mitigation (IFM) for Cancel/Replace Requests

For all Cancel/Replace Requests (tag 35-MsgType=G), tag 9768-OFMOverride must equal 'Y'. If customers send tag 9768-OFMOverride=N or if the tag is absent, the following error message is returned:

Tag 58-Text= [0100005][Invalid Quantity [0.00] < 0]

1.2 Market Data

Two FIX/FAST channels are supported for BM&FBOVESPA instruments; one for BM&FBOVESPA futures, and one for BM&FBOVESPA options.

An FTP site is used to disseminate market data configuration information and templates. Refer to <u>Market Data Platform FIX/FAST Core Functionality</u> for additional information.

The following sections describe the message impacts for the Security Definition (tag 35-MsgType=d), Market Data Incremental Refresh (tag 35-MsgType=X), Market Data Snapshot Full Refresh (tag 35-MsgType=W), and Security Status (tag 35-MsgType=f) messages.

In the event of an internal CME Group market data component switch form primary to backup, the market data subscriber will see a retransmission of values for settlement, opening price, and settle adjustment prices. In this case, there is no change to the published values. There is no additional publication of previously communicated book update or trade information, and all other market data resumes from the point of the switch-over.

The following table summarizes the list of FIX/FAST message attributes particular to BVMF.

FIX/FAST				
Message	Tags	Description		
	tag 55-Symbol	Prefix ='BR:'		
	tag 107-SecurityDesc	Prefix ='BR:'		
	tag 48-SecurityID	12-byte integer		
	tag 207-SecurityExchange	207='XBMF'		
Security Definition (35=d)	tag 1148-LowLimitPrice	Not sent at beginning of week startup; only updated on Instrument Definition feed.		
	tag 1149-HighLimitPrice	Not sent at beginning of week startup; only updated on Instrument Definition feed.		
	tag 1150-TradingReferencePrice	Not sent at beginning of week startup; only updated on Instrument Definition feed.		
Incremental Refresh (35=X) – Last Best Price	tag 276-QuoteCondition	276='C' not sent		
	tag 1023-MDPriceLevel	Always present		
Incremental Refresh (35=X) – Delete	tag 271-MDEntrySize	Not always present		
Book	tag 336-TradingSessionID	Not always present		
	tag 346-NumberOfOrders	Not always present		
Snapshot (35=W)	tag 276-QuoteCondition	276='C' not sent		
Security Status (35=f)	tag 55-Symbol	Not sent		
Security Status (35=1)	tag 48-SecurityID	Always present		

1.1.1 Security Definition (35=d)

1.1.1.1 Instrument Identification

The Security Definition message for BM&FBOVESPA instruments will have the following characteristics.

- For tag 107-SecurityDesc, BM&FBOVESPA instrument identifiers are prefixed with 'BR:'.
- Tag 55-Symbol is 20 bytes and is prefixed with 'BR:'.
- Tag 48-SecurityID is formatted as a 12 byte integer.

1.1.1.2 Exchange Identifier

'XBMF' is the valid value of Tag 207-Security Exchange.

1.1.1.3 Price Threshold

In the Security Definition (tag 35-MsgType=d) message, tag 1148-LowLimitPrice, tag 1149-HighLimitPrice, and tag 1150-TradingReferencePrice are defined with different rules.

In the FIX/FAST Security Definition (tag 35-MsgType=d) message on the Instrument Definition Feed, tag 1150-TradingReferencePrice is not sent at beginning of week start. The settlement price is made available before market open and is sent on the Market Data Incremental Refresh (tag 35-MsgType=X) message. Use tag 269-MDEntryType and tag 270-MDEntryPx in the Market Data Incremental Refresh (tag 35-MsgType=X) message to determine settlement price information. The Security Definition (tag 35-MsgType=d) message is updated on the Instrument Definition Feed to include settlement price information (tag 1150-TradingReferencePrice).

In the FIX/FAST Security Definition (tag 35-MsgType=d) message on the Instrument Definition Feed, tag 1148-LowLimitPrice and tag 1149-HighLimitPrice are not sent at beginning of week start. When the high and low limit prices are available, CME Globex sends the Security Status (tag 35-MsgType=f) message with tag 332-HighPx and tag 333-LowPx indicating the price limits and then the Security Definition (tag 35-MsgType=d) message is updated on the Instrument Definition Feed.

1.1.1.4 Book Depth

Book depth, as indicated in tag 264-MarketDepth in the Security Definition (tag 35-MsgType=d) message, is five deep for futures and five deep for options.

1.1.2 Incremental Refresh (35=X) and Snapshot (35=W) - Last Best Price

In the Market Data Incremental Refresh (tag 35-MsgType=X) message and the Market Data Snapshot Full Refresh (tag 35-MsgType=W) messages, tag 276-QuoteCondition does not send a value of 'C=Exchange Best'.

1.1.3 Incremental Refresh (35=X) - Delete Book

Market Data Incremental Refresh (tag 35-MsgType=X) book delete messages include tag 1023-MDPriceLevel and may not include tag 271-MDEntrySize, tag 336-TradingSessionID or tag 346-NumberOfOrders. Applications that check the validity of tag 271-MDEntrySize or tag 346-NumberOfOrders against the current book may reject these messages as invalid.

1.1.4 Incremental Refresh (35=X) - Final Settlement Price

In order to consistently indicate final settlement prices for all CMEG FIX/FAST market data, **tag 286=4 is not sent** in the final settlement data blocks for BVMF instruments.

1.1.5 Security Status (35=f)

The Security Status (tag 35-MsgType=f) market state is received from BM&FBOVESPA only on an instrument level basis (in tag 48-SecurityID) and never for a group level (tag 55-Symbol).

2. BMD

This section describes FIX/FAST market data functionality for existing CME Group customers intending to trade Bursa Malaysia Derivatives (BMD)TM products on CME Globex. This section assumes that you have certified to iLink and FIX/FAST format market data on the Market Data Platform (MDP).

New and existing CME Group customers who would like to trade BMD products must establish all appropriate agreements and accounts to be authorized to trade BMD products. Contact your Global Account Manager at CME Group for more information.

Existing CME Group and BMD customers developing applications to trade BMD products on the CME Globex platform must be aware of the following:

- Channels on the Market Data Platform
- Values for supported FIX/FAST market data tags
- Format for tag 107-SecurityDesc for BMD products

There are no differences for iLink order routing.

2.1 Market Data

2.1.1 Market Data Platform Channels

Futures and future spreads market data will be disseminated on channel 22. Options and user-defined options spreads market data will be disseminated on channel 23. Multicast and port information for channels 22 and 23 is in the config.xml file on ftp.cmegroup.com, as outlined in the Core Functionality module of the FIX/FAST Software Development Kit.

2.1.2 FIX tag 207-SecurityExchange

FIX tag 207-SecurityExchange identifies the exchange upon which the instrument is listed and is included in the Security Definition message (tag 35-MsgType=d). The value **XKLS** is populated in tag 207 for BMD products.

2.1.3 FIX tag 1151-SecurityGroup

FIX tag 1151-SecurityGroup identifies the product code for the instrument and is included in the Security Definition message (tag 35-MsgType=**d**). BMD uses a 4-byte value in tag 1151. Other products on CME Globex use a 2- or 3-byte value.

For instance, for the BMD Crude Palm Oil future, tag 1151-SecurityGroup is FCPO.

For a complete list of BMD products and their product codes, please see http://www.bursamalaysia.com/website/bm/products_and_services/bm_derivatives.html.

2.1.4 FIX tag 107-SecurityDesc

FIX tag 107-SecurityDesc provides a unique identifier for each instrument listed on CME Globex. BMD products will use a non-standard convention for the Security Description.

For future outrights, the Security Description convention is:

- Bytes 1-4 product code
- Bytes 5-10 instrument maturity in YYMMDD
- Bytes 11-16 **FUTURE**

For future calendar spreads, the Security Description convention is:

- Bytes 1-4 product code
- Bytes 5-6 **CS** for calendar spread
- Bytes 7-12 expiration for the front leg of the spread in YYMMDD
- Bytes 13-18 expiration for the back leg of the spread in YYMMDD

For future strips, the Security Description convention is:

- Bytes 1-4 product code
- Bytes 5-6 **ST** for future strip
- Bytes 7-12 expiration for the front leg of the spread in YYMMDD
- Bytes 13-18 expiration for the last leg of the spread in YYMMDD

For option outrights, the Security Description convention is:

- Bytes 1-4 product code
- Bytes 5-10 instrument maturity in YYMMDD
- Bytes 11-15 strike price, left padded with **0** as needed
- Bytes 16-17 00 for non-fractional strike price; fractional part in two decimal places for fractional strike price
- Bytes 16-18 **P** for put option; **C** for call option

2.1.5 FIX tag 762-SecuritySubType

FIX tag 762-SecuritySubType identifies the strategy type code for spreads in the Security Definition (tag 35-MsgType=**d**) message. BMD futures strips use the value **MS** in tag 762-SecuritySubType.

BMD futures strips are the simultaneous purchase or sale of an equally weighted, consecutive series of at least four outright futures. The BMD futures strip consists of multiples of four consecutive, quarterly maturities of a single product with the legs having a +1:+1:+1 ratio.

A 1-year strip, for example, consists of an equal number of futures contracts for each of the four consecutive quarters nearest to expiration.

2.1.6 Sample Security Definition Messages

2.1.6.1 BMD Crude Palm Oil future outright (FCPO)

 $1128 = 9|9 = 388|35 = d|49 = CME|34 = 606|52 = 20100516170000218|15 = MYR|22 = 8|48 = 21642|55 = BC|107 = FC \\ \textbf{PO100615FUTURE}|200 = 201006|202 = 0|207 = XKLS|461 = FCAXSX|462 = 2|562 = 1|731 = 1|827 = 2|864 = 2|865 = 5|866 = 20091214||1145 = 223000000|865 = 7|866 = 20100616|1145 = 30000000|870 = 1|871 = 24|872 = 1|947 = MYR|969 = 1|996 = MTONS|1140 = 500|1141 = 2|1022 = GBX|264 = 5|1022 = GBI|264 = 2|1142 = F|1143 = 0|1144 = 3|1146 = 1|1147 = 0|1150 = 2521|1151 = FCPO|1180 = 22|9787 = 1|9850 = 0|10 = 110$

2.1.6.2 BMD USD Crude Palm Oil future calendar spread (FUPO)

 $\begin{aligned} &1128 = 9|9 = 499|35 = d|49 = CME|34 = 479|52 = 20100516170000075|15 = USD|22 = 8|48 = 47313|55 = BC|\textbf{107=FU}\\ &\textbf{POCS100615100715}|200 = 201006|202 = 0|\textbf{207=XKLS}|461 = FMAXSX|462 = 2|555 = 2|600 = [N/A]|602 = 65363|\\ &603 = 8|623 = 1|624 = 1|600 = [N/A]|602 = 33679|603 = 8|623 = 1|624 = 2|562 = 1|731 = 1|\textbf{762=SP}|827 = 2|864 = 2|865|\\ &= 5|866 = 20091214|1145 = 223000000|865 = 7|866 = 20100616|1145 = 30000000|870 = 2|871 = 24|872 = 1|871 = 24|872 = 11|947 = USD|969 = 0.25|996 = MTONS|1140 = 500|1141 = 2|1022 = GBX|264 = 5|1022 = GBI|264 = 2|1142|1143 = 3000|1144 = 3|1146 = 0|1147 = 0|1150 = 4.25|\textbf{1151=FUPO}|1180 = 22|9787 = 1|9850 = 0|10 = 082|\end{aligned}$

2.1.6.3 BMD 3-Month Kuala Lumpur Inter-Bank Offered Rate future strip (FKB3)

2.1.6.4 Bursa Malaysia Kuala Lumpur Composite Index options (OKLI)

1128 = 9|9 = 409|35 = d|49 = CME|34 = 472|52 = 20100516170000066|15 = MYR|22 = 8|48 = 358535|55 = BO|107 = OKLI1012310140000C|200 = 201012|202 = 1400|207 = XKLS|461 = OCEFPS|462 = 5|562 = 1|711 = 1|311 = [N/A] |305 = 8|309 = 67117|731 = 1|827 = 2|864 = 2|865 = 5|866 = 20100429|1145 = 213000000|865 = 7|866 = 20101231|1145 = 90000000|870 = 1|871 = 24|872 = 1|947 = MYR|969 = 0.1|996 = IPNT|1140 = 500|1141 = 1|1022 = GBX|264 = 3|142 = F|1143 = 0|1146 = 10|1147 = 0|1150 = 101.2|1151 = OKLI|1180 = 23|9787 = 1|9850 = 0.1|10 = 224 | 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 = 0.1|10 =

3. Green Exchange

This section describes FIX/FAST market data functionality for existing CME Group customers intending to trade Green Exchange Daily European Union Allowance (EUA) Futures on CME Globex. This section assumes that you have certified to iLink and FIX/FAST format market data.

3.1 Market Data

3.1.1 Security Definition (35=d) for Daily EUA Futures

Daily European Union Allowance (EUA) Futures are a daily expiration futures contract, and as such have product-specific functionality within CME Globex.

For the Daily EUA Futures contract, the listing schedule includes two (2) daily contracts available for trading at any one time: the current trade date, and the following trade date (the contract date).

On the last trade date, trading halts at 11:00 a.m. Central Time (CT) and the Exchange for Related Position (EFRP) transaction session ends at 12:00 p.m. (CT).

Note: During the week of October 31 through November 7, due to the end of British Summer Time (BST), trading halt occurs at 12:00 p.m. (CT) and the EFRP transaction session ends at 1:00 p.m. (CT).

The FIX/FAST Security Definition message (tag 35-MsgType=d) supports this product as follows.

Product	tag 1151-	tag 55-	tag 207-	tag 872-	tag 200-
	SecurityGroup	Symbol	SecurityExchange	InstAttribValue	MaturityMonthYear
European Union Allowance (EUA) Daily Futures	EUL	VE	GREE	19 = Daily Product Eligibility	YYYYMMDD

Tag 107-SecurityDesc identifies daily futures instrument attributes as follows.

Where 107=EULZ010:

- EUL=product code
- Z=maturity month
- 0=maturity year (i.e. 2010)
- 10=maturity calendar date

3.1.1.1 Daily vs. In Delivery Month Intercommodity Spread

The daily EUA instrument is spread against the delivery month EUA instrument to create a daily vs delivery month intercommodity spread. The spread is listed and expired according to the daily instrument.

Product	Tag 1151- SecurityGroup	Tag 55- Symbol	Tag 762-SecuritySubType
Daily European Union Allowance (EUL) vs. In Delivery Month European Union Allowance (EAF) Intercommodity Spread	EUL	VE	IS

Revision History

Version	Date	Author	Description
1.0	11/8/2010	CR/DT	Initial release of document.
1.1	12/1/2010	blf	Added Green Exchange
1.2	4/6/2011	blf	Added 35=X final settlement price section for BVMF market data
1.3	6/23/2011	DT	Updated link in section 2.1.3: "FIX tag 1151-SecurityGroup"