



Client System Impact

**Brazilian Mercantile and Futures Exchange Bovespa
(Bolsa de Mercadorias & Futuros) Enhancements**

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8/19/09

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1. Introduction

This document includes a description of enhancements and new functionality for existing CME Group customers intending to trade Brazilian Mercantile and Futures Exchange/Sao Paulo Stock Exchange (BM&FBOVESPA) products on CME Globex. This document assumes that you have certified to iLink and Market Data Platform (MDP) FIX/FAST.

New CME Group customers who would like to trade BM&FBOVESPA products must establish all appropriate agreements and accounts to be authorized to trade.

Existing CME Group and BM&FBOVESPA customers developing applications to trade BM&FBOVESPA products on the CME Globex platform must be aware of the following functional enhancements.

- New supported order types for BM&FBOVESPA
- New supported tags
- Updated functionality to match CME Globex behavior

Please see the [Order Entry](#) section for a detailed description of system messaging impacts.

1.1 Key Customer Events and Dates

Enhancements for trading BM&FBOVESPA products on CME Globex will be available for development according to the following schedule.

Milestone	Date
New Release environment	September 1, 2009
Production	September 27, 2009

Also please check the CME Group website at www.cmegroup.com for updates regarding Certification and Mock Trading.

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1.2 Message Impacts

The following section contains the tag-level client system messaging impacts for iLink enhancements. Please see the applicable section within this document for a detailed description of these message changes.

System Impact	Message	FIX Tag	Enhancement
Standard Message Header Section 2.1	Header	tag 50-SenderSubID	Support for tag with the value of: G=CME Globex
		tag 57-TargetSubID	Support for tag indicating a unique identifier assigned to every individual for accessing the order routing system.
All Order Entry and Execution Report Messages Section 2.2	Execution Report (tag 35-MessageType=8)	tag 78-NoAllocs	New tag indicating a give up which must be set to '1'. Use this only when tag 79-AllocAccount is also submitted.
		tag 79-AllocAccount	New tag indicating a give up account number.
All Order Entry, Execution Report Acknowledgements, and Execution Report Fill Notices Section 2.3	Execution Report (tag 35-MessageType=8)	tag 40-OrdType	Support for additional order types: 4=Stop-Limit order K=Market-Limit order
Execution Report Fill Notices Section 2.5	Execution Report (tag 35-MessageType=8)	Tag 76-ExecBroker	New tag indicating the Brazilian Broker ID for BM&FBOVESPA orders.

2. Order Entry

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

2.1 Operator Identifiers

Previously, the Standard Message Header sent from BM&FBOVESPA customers to CME Group did not contain tag 50-SenderSubID or tag 57-TargetSubID. With this release, the message header will contain tag 50-SenderSubID=G and tag 57-TargetSubID.

Tag 50-SenderSubID and tag 57-TargetSubID allow you to identify the operator on all messages in the following way:

- The value of tag 50-SenderSubID in a New Order is returned as tag 57-TargetSubID.
- The value of tag 57-TargetSubID in a New Order is returned as tag 50-SenderSubID.

Tag 50-SenderSubID is a unique identifier assigned to every individual for accessing the order routing system. This identifier must be present on all order-related transactions as a means of identifying the originator. The clearing firm must be able to identify the person or ATS behind the ID upon request. The clearing member firm assigns this identifier to the individual.

Tag 57-TargetSubID is a unique identifier for the entity to which the message is sent. This tag will now be returned on all messages from CME Globex.

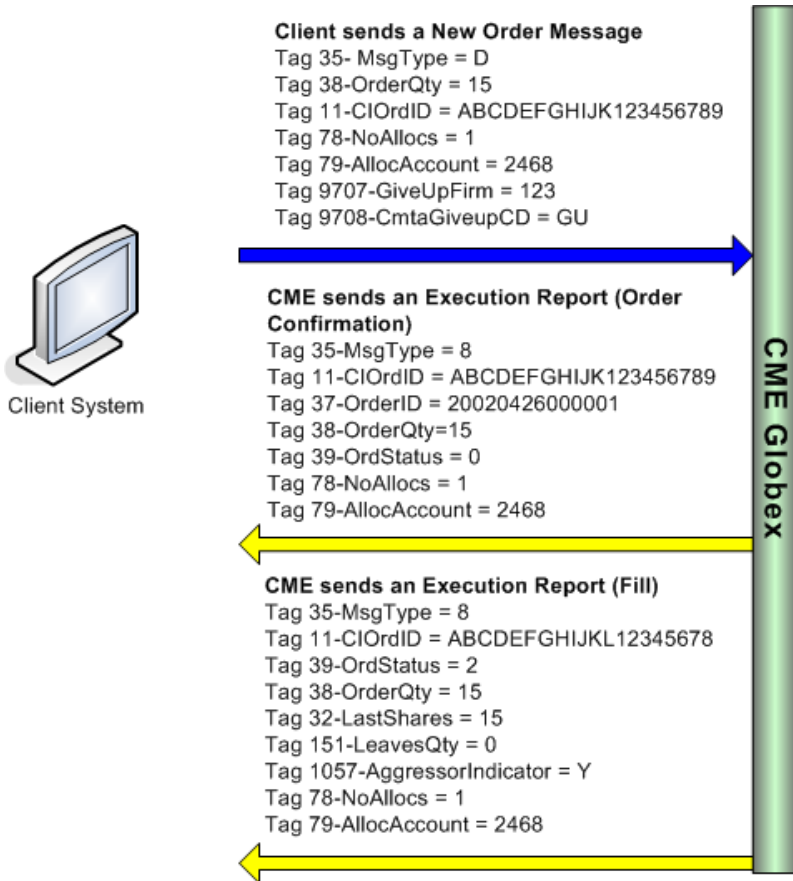
2.2 Give-Ups

For current give-up functionality, tag 9708-CmtaGiveupCD=GU and tag 9707-GiveUpFirm are set to the give-up firm ID. These tags remain unchanged. Tag 9707-GiveUpFirm identifies the clearing member firm to which the fill is given up. Tag 9708-CmtaGiveupCD indicates if the order is a give up or a mutual offset.

In New Order (tag 35-MessageType=D) messages, Order Cancel/Replace (tag 35-MessageType=G) messages, and corresponding Execution Report (tag 35-MessageType=8) messages, tag 78-NoAlloc and tag 79-AllocAccount are introduced to support give-up functionality at the account level as opposed to only at the Firm ID level. This repeating group allows users to provide only one give-up account.

To take full advantage of new tags 78-NoAlloc and tag 79-AllocAccount, and to ensure proper functioning of tags 78-NoAlloc, 79- AllocAccount, tag 9707-GiveUpFirm, and tag 9708-CmtaGiveupCD, tags 78-NoAlloc and tag 79-AllocAccount must be used in conjunction with tag 9707-GiveUpFirm and tag 9708-CmtaGiveupCD. Tag 9707-GiveUpFirm will still indicate the give-up firm and now tag 79-AllocAccount will indicate the account within that firm.

The following diagram illustrates how tags 78-NoAllocs and tag 79-AllocAccount are returned on messages from CME Globex:



Sending tag 78-NoAllocs and tag 79-AllocAccount without sending tag 9707-GiveUpFirm and tag 9708-CmtaGiveupCD is not recommended, but CME Globex does not send a reject message if this occurs. The initial information that CME Clearing needs is the firm followed by which account to give the transaction to based on the account provided. CME Group will not reject the order in Globex since this scenario is based on clearing information.

The new tag 78-NoAllocs has a length of 1 byte, while new tag 79-AllocAccount is 11 bytes long.

2.3 Supported Order Types and Qualifiers

This table indicates available order types and order qualifiers for BM&FBOVESPA products as defined with the New Order tag 35-MsgType=D message. Beginning with this release, Stop-Limit and Market-Limit orders are supported, as highlighted below.

Order Type (tag 40-OrdType)	BM&FBOVESPA Futures	BM&FBOVESPA Options
2=Limit	√	√
4=Stop-Limit	√	√
K=Market-Limit	√	√
Order Qualifier (tag 59-TimelnForce)		
0=Day/Session	√	√
3=Fill and Kill (FAK)	√	√

For a complete description of CME Globex order types and order qualifiers, please refer to [iLink Core Functionality](#).

2.3.1. Stop-Limit Orders

Stop-Limit orders are activated when an order's trigger price is traded in the market. The order is executed at all price levels between the trigger price and the limit price. For buy orders, the trigger price is lower than the limit price. For sell orders, the trigger price is higher than the limit price.

BM&FBOVESPA now supports Stop-Limit orders. For more information about Stop-Limit orders, refer to [iLink Core Functionality – Section 11. Supported Order Types and Qualifiers](#).

2.3.2. Market-Limit Orders

Market-Limit orders are executed at the best available price on the opposite side of the market. If the order cannot be completely filled, the order becomes a Limit order and the remaining quantity rests on the order book at the fill price. If no market is available, the order is rejected.

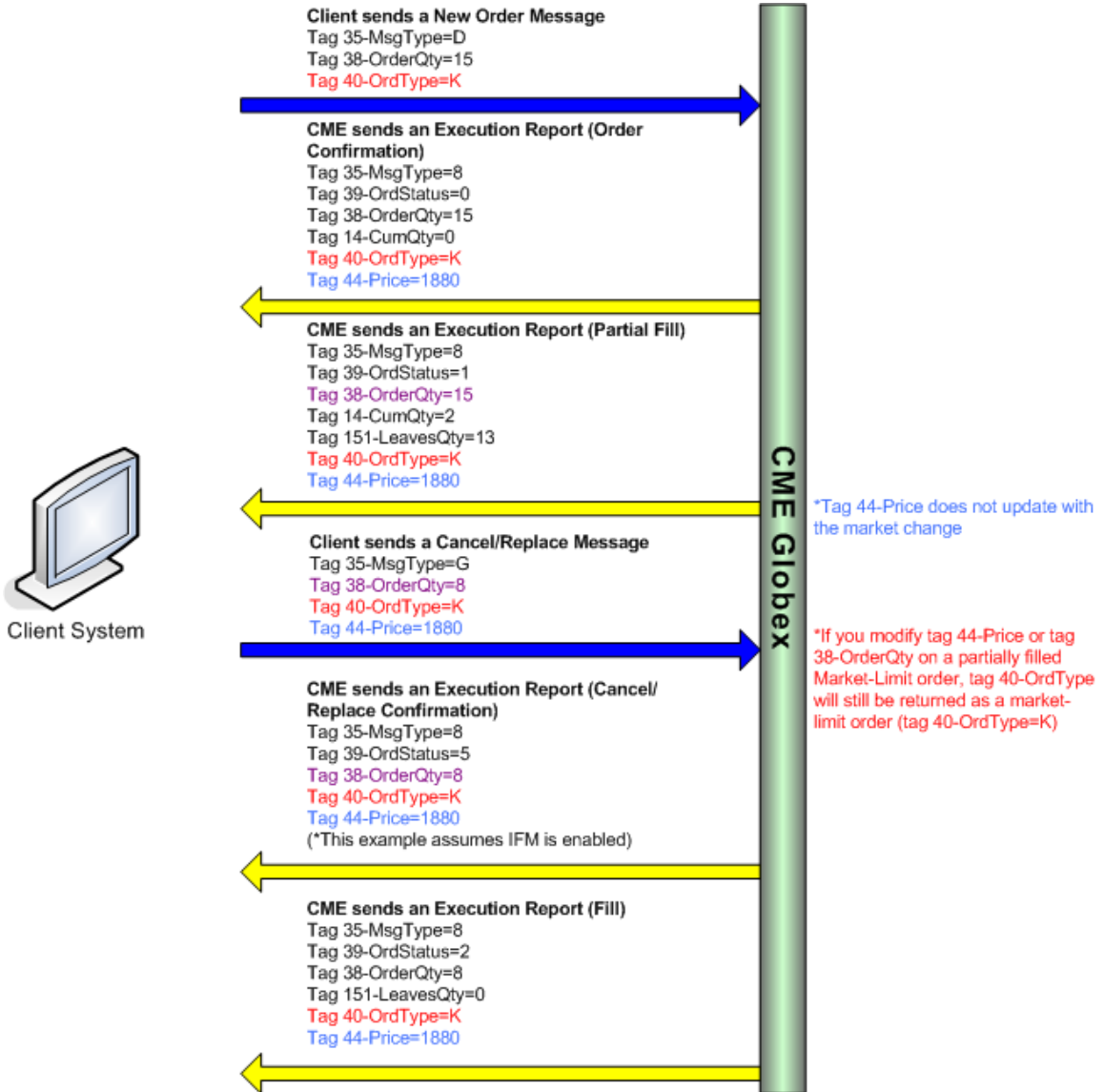
BM&FBOVESPA now supports Market-Limit orders. For more information about Market-Limit orders, refer to [iLink Core Functionality – Section 11. Supported Order Types and Qualifiers](#)

Market-Limit Order Accepted and Resting on Book

This section describes BM&FBOVESPA and CME Globex messaging behavior for Market-Limit Orders that are accepted, partially filled, and resting on the book.

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 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-OrderType=K.



Note: 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-OrderType=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-OrderType=K.

2.3.1. Fill and Kill Orders

This section describes Fill and Kill (FAK) behavior that has been added or updated for this release.

Fill and Kill orders are now updated to match CME Globex behavior in Partial Fill Notice and Order Elimination Execution Reports, as described below.

- Partial Fill Notice** – Previously, if an FAK order (tag 35-MsgType=8, tag 59-TimelnForce=3) was submitted to BM&FBOVESPA and there was only a partial match, the CME Group customer received an Execution Report – Partial Fill Notice (tag 35-MsgType = 8, tag 39-OrdStatus = 1) followed by an Execution Report – Order Cancel Acknowledgement (tag 35-MsgType = 8, tag 39-OrdStatus = 4, tag 150-ExecType=C).

This functionality is now updated to match CME Globex behavior where the customers receive the Execution Report – Partial Fill Notice (tag 35-MsgType = 8, tag 39-OrdStatus = 1) followed by an Execution Report – Order Elimination (tag 35-MsgType = 8, tag 39-OrdStatus = C).

If tag 39-OrdStatus=4 and tag 59-ExecType=3, then the resulting mapping will be tag 39-OrdStatus=C, which matches current CME Globex behavior. The following table highlights the new Execution Report tag 35-MsgType=8 Order Cancel Acknowledgement Message Behavior:

Previous BM&FBOVESPA Behavior	New BM&FBOVESPA Behavior	Current CME Globex Behavior
Tag 39-OrdStatus=4	Tag 39-OrdStatus=C	Tag 39-OrdStatus=C
Tag 59-TimelnForce=3	Tag 59-TimelnForce=3	Tag 59-TimelnForce=3
150-ExecType=C	150-ExecType=C	150-ExecType=C

- Order Elimination** - Previously, if an FAK order was submitted to BM&FBOVESPA (tag 59-TimelnForce=3) and the book did not support a match, BM&FBOVESPA generated the Execution Report-Reject Message (tag 35-MsgType = 8, tag 39-OrdStatus=8) for the order.

This functionality is now updated to more closely match CME Globex behavior by generating an Execution Report – Order Elimination message (tag 35-MsgType = 8, tag 39-OrdStatus=C, tag 150-ExecType=C) for the order, as highlighted in the following table:

Previous BM&FBOVESPA Behavior	New BM&FBOVESPA Behavior	Current CME Globex Behavior
Tag 39-OrdStatus=8	Tag 39-OrdStatus=C	Tag 39-OrdStatus=C
Tag 59-TimelnForce=3	Tag 59-TimelnForce=3	Tag 59-TimelnForce=3
150-ExecType=8	150-ExecType=C	150-ExecType=C

Note: 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.

2.4 Order Cancel Reject

Previously, for Order Cancel Reject tag 35-MessageType=9 messages, tag 9717-CorrelationClOrdID contained the value returned from tag 37-OrderID.

With this release, for Order Cancel Reject tag 35-MessageType=9 messages, tag 9717-CorrelationClOrdID is correctly returned as the value submitted in tag 9717-CorrelationClOrdID.

2.5 Brazilian Broker Identification

The new tag 76-ExecBroker identifies the executing Brazilian broker for the trade. In this release, CME Globex provides this information to customers in Execution Report Execution Report – Fill Notices tag 35-MessageType=8 derived from BM&FBOVESPA's party information.

3. Testing and Certification

To trade BM&FBOVESPA products, you must certify to iLink, MDP FIX/FAST, and complete BM&FBOVESPA specific tests. BM&FBOVESPA is available for testing and certification in the New Release environment.

You must contact your Globex Account Manager (GAM) representative to obtain AutoCert/AutoCert+ login IDs and passwords:

312.634.8700 (Chicago)

00-44-20-7796-7100 (London)

00-852-3101-7696 (Asia)

Complete information about certification and testing on CME Globex is available online at <http://www.cmegroup.com/cert>. The complete testing and certification documentation set can be found at <http://www.cmegroup.com/globexsdk>.

Customer Support for Electronic Trading (CSET)

Customers developing CME Globex order entry and market data applications receive development support from the CSET group.

CSET is available 24 hours a day Monday through Friday at 312-930-2322 or

CSET@cmegroup.com.

4. Revision History

Version	Date	Author	Description
1.0	8/20/09	NU	Initial release of document.