

Option Spreads Enhancements 2009 Client System Impact

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1. Introduction

This document details client system impacts and enhancements as follows:

- New CME Globex Recognized Spread Types will be available on CME Globex: Straddle vs. Call (3-way), Straddle vs. Put (3-way), Iron Butterfly, Jelly Roll, and Gut.
- Elimination of Exchange-Defined Spreads.

1.1 Key Customer Events and Dates

Enhancements will be available for development in different environments according to the following schedule:

	New Release	Production	Certification
New CME Globex Recognized Spread Types will be available on CME Globex	April 20, 2009	August 2, 2009	
Elimination of Exchange-Defined Spreads.	April 20, 2009	August 2, 2009	

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

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1.2 Certification Requirements

Certification is not required for:

- New CME Globex Recognized Spread Types will be available on CME Globex.

Certification is required for:

- Elimination of Exchange-Defined Spreads. Client systems that support and have certified to User-Defined Spread (UDS) functionality will not be required to re-certify. Client systems that do not support or have not previously certified to User Defined Spread (UDS) functionality will be required to certify order entry and market data systems on AutoCert+. For additional information on testing and certification, refer to www.cmegroup.com/certsdk.

1.3 Definitions

The following terms are used in this document and defined as follows:

Exchange-Defined Spreads	An option spread that CME Globex creates by defining the spread's legs and ratios. This is being decommissioned per the schedule in "Key Customer Events and Dates", page 1.
User-Defined Spread (UDS)	An option spread that a trader creates by defining the spread's legs and ratios. The option spread will be identified as a CME Globex Recognized Spread Type or a CME Globex Unrecognized Spread Type.
CME Globex Recognized Spread Type	A User-Defined Spread that matches a known CME Group spread type (e.g., straddle). CME Globex will properly identify the spread as that type. This is sometimes referred to as a higher-order spread type.
CME Globex Unrecognized Spread Type	A User-Defined Spread (UDS) that does not match any of the CME Globex Recognized Spread Types. This is a unique options spread defined by a trader. This is sometimes referred to as a Generic Options Spread Type or Generic.

2. New CME Globex Recognized Spread Types

This section describes the new CME Globex Recognized Spread Types that will be available on CME Globex. The new CME Globex Recognized Spread Types are as follows:

Spread Type	Strategy Type Code
Straddle versus Call (3-way)	3C
Straddle versus Put (3-way)	3P
Iron Butterfly	IB (eye-B)
Jelly Roll	JR
Gut	GT

2.1 Straddle versus Call (3-way) (3C)

Straddle versus Call (3-way) (3C) consists of buying a Straddle and (versus) selling a Call in the same expiry month. The Straddle component consists of buying a Call and buying a Put in the same contract, expiration, and strike price. The opposing (versus) component is to sell a Call for the same contract and expiration but at a different strike price.

Spread ratio: (buy 1: buy 1: sell 1)

Construction: Buy1callstrike1exp1 Buy1putstrike1exp1 Sell1callstrike(?)exp1

Example: Buy the 3-way: Straddle versus Call

Buy 1 December 2009 Ten-Year Treasury Note option 120 Call

Buy 1 December 2009 Ten-Year Treasury Note option 120 Put

Sell 1 December 2009 Ten-Year Treasury Note option 123 Call

2.2 Straddle versus Put (3-way) (3P)

Straddle versus Put (3-way) (3P) consists of buying a Straddle and (versus) selling a Put in the same expiry month. The Straddle component consists of buying a Call and buying a Put in the same contract, expiration, and strike price. The opposing (versus) component is to sell a Put for the same contract and expiration but at a different strike price.

Spread ratio: (buy 1: buy 1: sell 1)

Construction: Buy1callstrike1exp1 Buy1putstrike1exp1 Sell1putstrike(?)exp1

Example: Buy the 3-way: Straddle versus Put

Buy 1 December 2009 Ten-Year Treasury Note option 120 Call

Buy 1 December 2009 Ten-Year Treasury Note option 120 Put

Sell 1 December 2009 Ten-Year Treasury Note option 117 Put

2.3 Iron Butterfly (IB)

An Iron Butterfly (IB) consists of buying a Straddle and selling a Strangle in the same expiry month. The IB components are to sell a Put at a strike price, buy Put and Call at higher strike price, and sell a Call at an even higher strike price. The strike prices do not have to be consecutive and the gaps between strike prices do not have to be equal.

Spread ratio: (sell 1: buy 1: buy 1: sell 1)

Construction: Sell1putstrike1exp1 Buy1putstrike2exp1 Buy1callstrike2exp1 Sell1callstrike3exp1

Example: Iron Butterfly

Sell 1 March 2009 Ten-Year Treasury Note option 118 Put

Buy1 March 2009 Ten-Year Treasury Note option 120 Put

Buy 1 March 2009 Ten-Year Treasury Note option 120 Call

Sell 1 March 2009 Ten-Year Treasury Note option 122 Call

2.4 Jelly Roll (JR)

A Jelly Roll (JR) consists of buying (sell) a Reversal in one expiry month and selling (buy) the Reversal in another expiry month to produce a synthetic spread between both months.

A Jelly Roll involves Selling (buy) a Call, buying (sell) a Put at same strike in the near month, and buying (sell) a Call, selling (buy) a Put at a different strike in the far month.

Spread ratio: (sell 1: buy 1: buy 1: sell 1)

2.4.1 Buy Jelly Roll

Construction: Sell1callstrike1exp1 Buy1putstrike1exp1 Buy1callstrike2exp2 Sell1putstrike2exp2

Example: Buy Jelly Roll

Sell 1 Dec 2009 Eurodollar options 9750 Call

Buy 1 Dec 2009 Eurodollar options 9750 Put

Buy 1 March 2010 Eurodollar options 9825 Call

Sell 1 March 2010 Eurodollar options 9825 Put

2.4.2 Sell Jelly Roll

Construction: Buy1callstrike1exp1 Sell1putstrike1exp1 Sell1callstrike2exp2 Buy1putstrike2exp2

Example: Sell Jelly Roll

Buy 1 Dec 2009 Eurodollar options 9750 Call

Sell 1 Dec 2009 Eurodollar options 9750 Put

Sell 1 March 2010 Eurodollar options 9825 Call

Buy 1 March 2010 Eurodollar options 9825 Put

2.5 Gut (GT)

A Gut (GT) option spread consists of buying a Call at a strike price and buying a Put at higher strike price in the same expiry.

Spread ratio: (buy 1: buy 1)

Construction: Buy1callstrike1exp1 Buy1putstrike2exp1

Example: Buy the Gut

Buy 1 December 2009 Ten-Year Treasury Note option 120 Call

Buy 1 December 2009 Ten-Year Treasury Note option 122 Put

3. Elimination of Exchange-Defined Spreads

CME Group currently prelists approximately 360,000 options spreads per week, known as Exchange-Defined Spreads. Less than 1% of the more than 360,000 Exchange-Defined Spreads have trading or RFQ activity. Due to customer and system provider demand, CME Group has chosen to remove all Exchange-Defined Spreads and make all option strategies user defined. Client systems must leverage CME Globex User-Defined Spread methodology for all option spread creation.

A User-Defined Spread (UDS) is an option spread that a trader creates by defining the spread's legs and ratios. CME Globex receives these legs and creates a tradable instrument that is disseminated to the entire market.

- If the created spread matches a known CME Group spread type (e.g., straddle), CME Globex will designate the spread as that type, referred to in this document as a CME Globex Recognized Spread Type (also sometimes referred to as higher-order spread type).
- If the created spread does not match a known CME Group spread type, CME Globex will designate the spread as a CME Globex Unrecognized Spread Type (also sometimes referred to as a Generic).

All customer-created UDS that match a CME Globex-recognized spread type will be identified as that strategy type in the Security Definition message (tag 35-MessageType=d, tag 762-SecuritySubType), regardless of the product complex (except Conditional Curves that will only be for CME Interest Rates).

3.1 Migrating from Exchange-Recognized Spread to User-Defined Spread (UDS) Functionality

Eliminating Exchange-Defined Spreads and moving to UDS means that CME Globex will no longer list predefined options spreads on Sundays and incrementally as futures prices move. Once CME Globex has moved from Exchange-Defined Spreads to UDS, all options spreads will have to be created by a user if they do not exist. CME Globex will classify a UDS as a known spread type (eg. butterfly) when a trader creates a UDS that matches a CME Globex recognized spread type.

The following sections in this document highlight some of the implementation considerations for User-Defined Spread (UDS) functionality. For detailed information on development for UDS functionality, refer to the [iLink SDK](#) and [FIX/FAST SDK](#).

3.2 User-Defined Spreads - Options Spread Types

User-defined spreads - options spreads will fall into one of two categories. Both types listed below may be delta neutral or covered.

- CME Globex Recognized Spread Types - these user created option spreads are composed of legs that fit the structure of exchange recognized spread types (eg. Butterfly: buy1-sell2-buy1). See the [Electronic Trading Concepts document](#) at for a full list of exchange-recognized spread types.
- CME Globex Unrecognized Spread Types - these user created option spreads are composed of legs that do not fit the structure of an exchange recognized spread type.

3.3 Creation of User-Defined Spreads (UDS)

Client systems must obtain all MDP FIX/FAST Security Definition (tag 35-MsgType=d) Messages for option outright instruments valid during the week (including mid-week adds) so that the client system has the component legs for all strategies that can be built. If an options spread instrument is not listed on CME Globex, it must be created using the iLink Security Definition Request (tag 35-MsgType=c) Message. Once an options spread is created, it will be identified as a CME Globex Recognized Spread Type or a CME Globex Unrecognized Spread Type. An iLink Security Definition (tag-35-MsgType=d) Message will be sent to acknowledge the creation operation (success or failure). A successful creation will be broadcast on MDP FIX/FAST with a Security Definition (tag 35-MsgType=d) Message to connected client systems.

Note: The iLink Security Definition (tag 35-MsgType=d) Message should not be used to gather User-Defined Spread instrument characteristics. Only the MDP FIX/FAST Security Definition (tag 35-MsgType=d) Message should be used for gathering the characteristics of instruments as it contains all instrument information and it is the only one which will be updated through the lifetime of the User-Defined Spread (e.g. change of expiration date).

3.4 Dissemination of User-Defined Spreads (UDS)

Market Data Platform FIX/FAST Security Definition (tag 35-MsgType=d) Messages for User-Defined Spreads are disseminated on the Market Data Platform FIX/FAST Incremental feeds at the moment of creation and added to the Market Data Platform FIX/FAST Instrument Definition feeds at the same time.

As long as the User-Defined Spread instrument is active, the Security Definition (tag 35-MsgType=d) Message of the User-Defined Spread instrument will be re-disseminated every week at Sunday start.

3.5 Identification of a User-Defined Spread (UDS) Instrument

Client Systems can identify a User-Defined Spread (UDS) instrument by analyzing the MDP FIX/FAST Security Definition (tag 35-MsgType=d) Message. Tag 9779-UserDefinedInstrument=Y is present on all User-Defined Spread instruments and should be used as the method for identifying this type of instrument. Currently, a User-Defined Spread (UDS) Instrument is an option spread (CME Globex Recognized Spread Type or CME Globex Unrecognized Spread Type) or Covered Options Spread. Futures outright, futures spreads, and options outright will currently remain exchange-defined.

3.6 Expiration of User-Defined Spread Instruments

This section provides the rules for options spread instrument expiration and expiration extension given the possible leg configurations and order types.

An options spread will be broadcast on MDP FIX/FAST via the Security Definition (tag 35-MsgType=d) Message until the second Friday after the creation of the instrument. Covered Options Spreads expire at the end of the trading day.

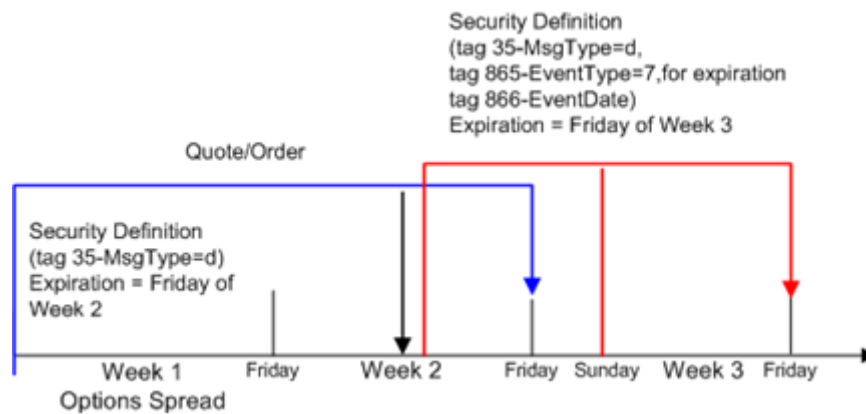
3.6.1 Extension for CME Globex Recognized Spread Types and CME Globex Unrecognized Spread Types

CME Globex assigns the expiration date and time as either the earliest leg expiration of the CME Globex Recognized Strategy Type and CME Globex Unrecognized Strategy Type OR the end of the following trading week, whichever occurs first when creating an exchange-recognized Strategy Type. Tag 866-EventDate contains this ExpirationDate/Time in the Security Definition (tag 35-MsgType=d) message.

Note: Tag 866-EventDate will only be updated at Sunday start.

Quote or order activity on a CME Globex Recognized Strategy Type during the defined week of expiration extends instrument expiration an additional trading week.

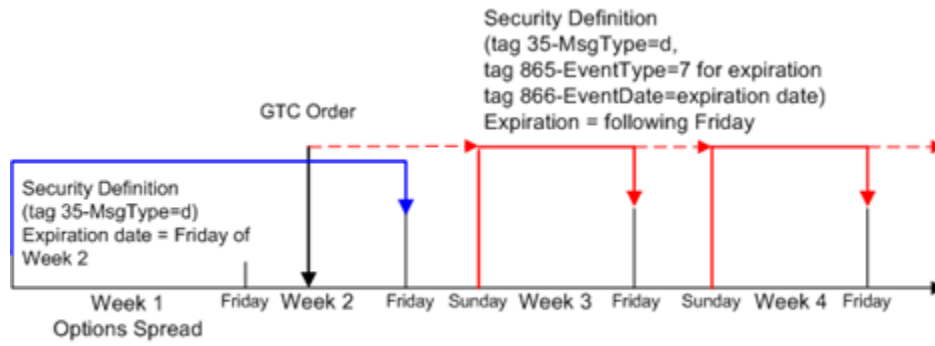
Note: If the client system disconnects over the weekend, then upon reconnect, the client system must monitor the appropriate channel for options spread instruments that have had their expiration extended.



3.6.2 Extension for GTC or GTD Options Spread

GTC and GTD orders effect options spreads expiration as follows:

- GTD – extends expiration to specified ‘Good till’ date.
- GTC – extends expiration to earliest leg expiration.

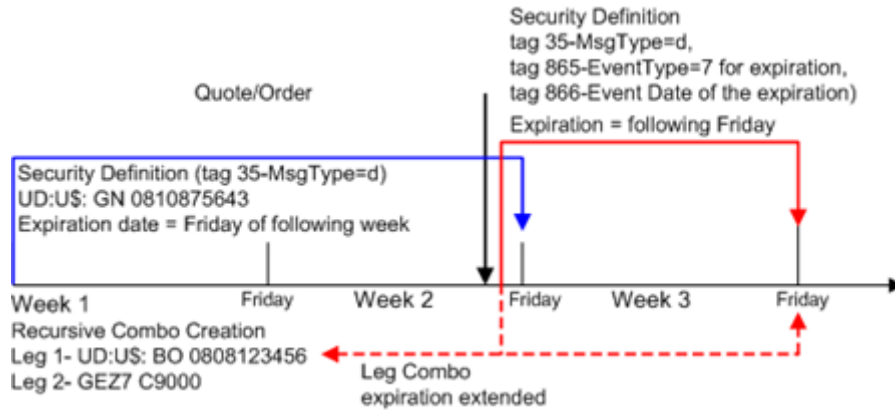


The GTC order automatically extends options spread expiration with a new Security Definition (tag 35-MsgType=d) message sent each Sunday until earliest leg expiration or cancellation.

3.6.3 Extension for Recursive Spread

A recursive expiration extension follows these rules:

- The leg which has the earliest expiration controls the extension of the entire spread.
- If the leg expiration of the recursive spread is extended, the leg expiration is also extended.



3.6.4 Extension for a Covered Options Spread

A covered options spread expires at the end of the trading session in which it has been created.

3.7 Suggested Naming for Front-End Display of User-Defined Spread (UDS) Instruments

Note: Client systems should not utilize tag 107-SecurityDesc in the Market Data Platform FIX/FAST Security Definition (tag-35-MessageType=d) Message for deriving the display name of User-Defined Spread (UDS) instruments.

Client systems must obtain the Market Data Platform FIX/FAST Security Definition (tag 35-MessageType=d) Message for the spread instrument, and retrieve the Security Definition (tag 35-MessageType=d) message for each leg of the spread instrument to properly name the options spread.

Following is a sample process to identify and name User-Defined Spread (UDS) Instruments using a CME Globex Recognized Spread Type (XT = Xmas Tree).

1. Identify a user-defined spread (UDS) instrument by obtaining the Security Definition (tag 35-MessageType=d) Message for the options spread instrument and identifying the following value:
 - tag 9779-UserDefinedInstrument=Y
2. From the Security Definition (tag 35-MessageType=d) message for the options spread instrument, obtain the following values:
 - Tag 762-SecuritySubType (XT)
 - Tag 1151-SecurityGroup (GE)
 - Tag 602-LegSecurityID repeating (200000 -> 890242 -> 782588)
 - Tag 623-LegRatioQuantity repeating (1 -> 1 -> 1)
 - Tag 624-LegSide repeating (1 -> 2 -> 2)
3. Retrieve the Security Definition (tag 35-MessageType=d) message for each leg using tag 602-LegSecurityID from the spread instrument Security Definition (tag 35-MessageType=d) message and obtain the following values for each leg:
 - Tag 107-SecurityDesc (e.g. GEM9 C9662)
 - Tag 202-StrikePrice (e.g. '9662.5') Tag 202-StrikePrice must be used for the exact strike price - do not parse price information from tag 107-SecurityDesc.
 - Tag 461-CFICode the second byte is P for put and C for call. This value is defined from the first leg of the spread.
4. Construct the instrument name 'GE JUN07 Call XT 9662.5-9687-9712.5'.

CME Group recommends that client system providers consider the following when designing a graphical interface to display these spreads.

3.1 Best Practices for Displaying Spread Names

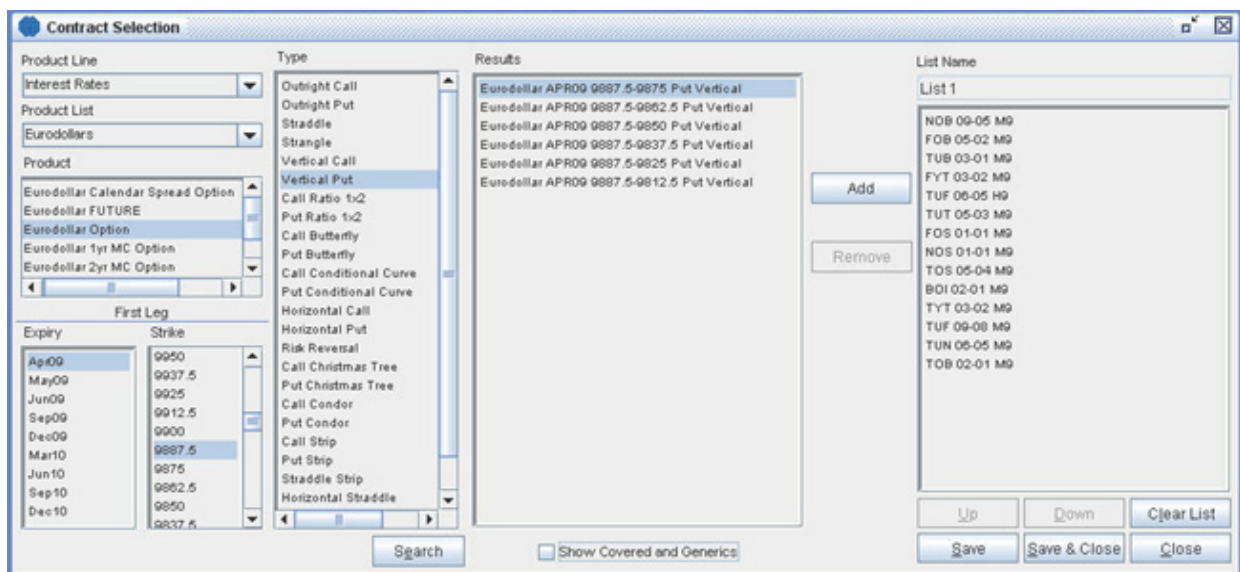
CME Group recommends that client system providers consider the following when designing a graphical interface to display these spreads.

3.7.1 Display of CME Globex Recognized Spread Types

The client system should recognize when a newly created user-defined option spread matches a CME Globex Recognized Spread Type. CME Globex Recognized Spread Types are specified in the FIX/FAST Security Definition (tag 35-MsgType=d) message in tag 762-SecuritySubType. The client application should properly categorize each CME Globex Recognized Spread Type into a bucket denoting the type.

Note: With the move to full user-defined spreads, client systems can no longer use tag 107-SecurityDesc as a display name.

In the following figure, review how CME EOS Trader system displays a bucket for each CME Globex Recognized Spread Type in the **Type** column. EOS Trader further enhances usability by allowing the user to limit searches by product, expiry and strike.



3.7.2 Display of CME Globex Unrecognized Spread Types

The client system should recognize when a user-defined option spread does not match a CME Globex Recognized Spread Type. A non-matched CME Globex Recognized Spread Type is identified by the strategy type GN in the FIX/FAST Security Definition (tag 35-MsgType=d) message in tag 762-SecuritySubType.

Since these spreads cannot be easily categorized, CME Group recommends that the client system display CME Globex Unrecognized Spread Types by categorizing them as a separate category, which will make it easy for the user to view all of the legs included in the spread.