

UDS - Validation and Messaging Rules

The rules apply to user-defined options spreads and combinations and user defined covered options spreads and combinations as described below.

- [Message Validation](#)
 - [Session Layer](#)
 - [Business Layer](#)
 - [Spread GTD Validation](#)
 - [Market State Validation](#)
- [UDS Covered Validation](#)
 - [Covered Security Definition Request Message Repeating Groups](#)
 - [Covered Outright Example - Repeating Group Tags and Sample Values](#)
 - [Covered Spread Example - Repeating Group Tags and Sample Values](#)
 - [Market State Validation](#)
 - [Business Layer Validation](#)
 - [Security Definition Acknowledgment](#)
 - [Covered UDS Trade Notification](#)

To create a UDS security definition, there are two levels of validation:

1. Message validation - proposed UDS instrument is validly constructed.
2. Market State - market state allows creation of the UDS.

Message Validation

Security Definition Request or Message validation occurs at both the Session Layer and Business Layer.

Session Layer

CME Group customers use the iLink [Security Definition Request \(tag 35-MsgType=c\)](#) message to create a UDS on the CME Globex platform. The iLink Security Definition Request message requires a repeating group of user-populated tags for instruments included in the UDS.

CME Globex validates all required tags; the message is rejected if a required tag:

- is not included
- is empty
- contains spaces
- exceeds the character limit



In certain cases when an iLink Security Definition Request (tag 35-MsgType=c) message is submitted with erroneous content or structure, the CME Globex platform will reject the message with a Business-Level Reject. In such an instance, tag 380-BusinessRejectReason will contain the reason for the rejection.

Business Layer

The following restrictions apply to all options spreads and combinations—CME Globex will reject an iLink Security Definition Request (tag 35-MsgType=c) message that:

- Defines the same option instrument as both a Buy and a Sell; all instances of the given option must have the same side.
- Duplicates another user-defined options spread or combination.



Important

If an iLink Security Definition Request (tag 35-MsgType=c) is rejected as "Contract is invalid" due to an existing, identical spread or combination instrument definition sent in tag 107-SecurityDesc. It is strongly recommended that the client system reload all market data Security Definition (tag 35-MsgType=d) messages from the Replay channel.

- Defines a leg ratio in other than the [lowest ratio terms](#). For example, a Security Definition Request message for a Butterfly spread must be submitted with tag 623-LegRatioQty defined in each respective repeating group as 1:2:1.
- Exceeds a total of 40 instruments as follows:

A UDS constructed from available exchange-listed options outright can contain a **maximum of 40 outright instruments**.

A [recursive UDS](#) can contain a **maximum of 40 options outright instruments**.

Examples for 40 Instrument Maximum Calculation

- A user-defined exchange recognized Call Butterfly counts as three instruments toward the forty instrument limit.



If the same instrument (identical strike, call/put, expiration) appears in more than one spread or combination, it is counted in EACH spread or combination in which it appears regardless of ratio quantities.

- Covereds can have up to 39 futures legs.



CME Globex does not count the leg ratio toward the 40 instrument maximum. Using the example of the butterfly spread, even though the butterfly is constructed as Buy 1, Sell 2, Buy 1, the butterfly counts as *three* legs towards the 40-leg limit, not 4.

Spread GTD Validation

For a UDS, a GTD order qualifier for an iLink [New Order \(tag 35-MsgType=D\)](#) or a [Order Cancel/Replace Request \(tag 35-MsgType=G\)](#) message cannot have a date later than the earliest expiring leg of the spread or combination.

Market State Validation

The iLink [Security Definition Request \(tag 35-MsgType=c\)](#) message is accepted in all market states and will not be accepted if submitted during CME Globex maintenance windows.

The Security Definition Request (tag 35-MsgType=c) message is accepted during **Pre-Open**, **Open**, and **No Cancel** market states as indicated by the market data [Security Status \(tag 35-MsgType=f\)](#) message.

UDS Options instruments defined in the iLink Security Definition Request (tag 35-MsgType=c) message are accepted only during the **Pre-Open**, **Open**, and **No Cancel** market states.

A UDS instrument either expires with the earliest expiration of its component leg instruments or at the end of the trading session, as specified in tag 200-MaturityMonthYear of the Security Definition (tag 35-MsgType=d) message.

UDS Covered Validation

The iLink [Security Definition Request \(tag 35-MsgType=c\)](#) message is used to define a composition of option outright, options spread or combination instruments, futures instrument(s), future side(s) and delta value(s) to create Covered instruments on CME Globex.



All UDS contracts are defined from the buy side.

Covered Security Definition Request Message Repeating Groups

The iLink [iLink 2 Security Definition Request](#) message requires a repeating group of user-populated tags for each option and future instrument comprising the Covered instrument. Repeating groups are blocks of tags that define the outright option or options spread or combination and the future or futures covering the option instrument.

An iLink Security Definition Request message defining a Covered can only contain one repeating group for an outright option or options spread or combination. Covereds can be defined with a maximum of 39 futures instruments within the CME Group defined range of the 40 instrument maximum for Covered instruments (i.e., a Covered instrument with 40 instruments must have one option outright leg), for example:

Covered Butterfly Spread UD:US:CBO 0306123410 consists of:

- Leg 1 GE:BOU9 C958 963
- Leg 2 GEU9



The following three tags have different processing rules for the option repeating group and the future repeating group as indicated in the message specification.

- Tag 624-LegSide
 - Required for option repeating group, must equal '1' (Buy) with the exceptions of the [exchange-recognized options spread](#) types: [Jelly Roll \(JR\)](#), [Iron Butterfly \(IB\)](#), [Iron Condor \(IC\)](#).
 - Required for future repeating group; can equal '1' (Buy) or '2' (Sell).
- Tag 566-LegPrice – not allowed for Covered option repeating group.
- Tag 1017-LegOptionDelta – not allowed for Covered option repeating group.



To submit a Covered with multiple options legs, *the legs must be submitted as an options spread or combination instrument in a single options repeating group*. CME Globex will reject an iLink Security Definition Request containing multiple options repeating groups.

The following table lists the option-specific repeating group tags used to generate a unique Covered Security Definition. The () symbol designates repeating groups within the message.

Covered Outright Example - Repeating Group Tags and Sample Values

The following example shows the repeating group tags and sample values required to define a Covered outright option.

Tag	Repeating Group	Description	Sample Value
600-LegSymbol	Option	Outright option instrument group	ZE
620-LegSecurityDesc		Outright option	GEH2 C9650
624-LegSide		Must = 1 (Buy)	1
600-LegSymbol	Future	Future instrument group	GE
620-LegSecurityDesc		Covering future contract	GEH2
566-LegPrice		Covering future price	9600
1017-LegOptionDelta		Leg delta	0.30

Covered Spread Example - Repeating Group Tags and Sample Values

The following example shows the repeating group tags and sample values required to define a Covered options spread.

Tag	Repeating Group	Description	Sample Value
600-LegSymbol	Option	Option spread instrument group	E\$
620-LegSecurityDesc		Option spread instrument	GE:HOH2Z6C947
624-LegSide		Must = 1 (Buy)	1
600-LegSymbol	Future	Future instrument group	GE
620-SecurityDesc		Covering future instrument	GEH2
566-LegPrice		Covering future price	9475
624-LegSide		Covering future side	2
1017-LegOptionDelta		Leg delta	0.35
600-LegSymbol	Future	Future instrument group	GE
620-SecurityDesc		Covering future instrument	GEH2
624-LegSide		Covering future side	1
566-LegPrice		Covering future price	9550
1017-LegOptionDelta		Leg Delta	0.25



For an outright option or options spread or combination, tag 624-LegSide is required and must be set to '1' (Buy). An iLink Security Definition request message submitted with tag 624-LegSide set to '2' for an outright or options spread or combination will be rejected.

Market State Validation

The iLink [iLink 2 Security Definition Request](#) message is accepted during the *Pre-Open*, *No-Cancel*, and *Open* market states only.


Options instruments defined in the iLink Security Definition Request (tag 35-MsgType=c) message are tradable only during the Open market state for that option instrument and instrument group.

Business Layer Validation

A proposed Covered instrument must adhere to the following rules:

- When the options instrument is a spread or combination and the instrument has only one expiration, then only one Covering future is accepted.
- When the options instrument is a spread or combination in which the options deliver into two or more different futures, then the customer can submit one covering future or two different covering futures.
- No covering future may be specified in the iLink Security Definition Request more than once.
- The message can contain up to 39 futures repeating groups.

In cases when an iLink message is submitted with erroneous content or structure, the CME Globex platform will reject the message with a [iLink 2 Business Level Reject](#) message. In such an instance, tag 380-BusinessRejectReason will contain the reason for the rejection.


 If an iLink [iLink 2 New Order](#) message sent on a Covered instrument is rejected with a Business Level Reject message and the client system subsequently submits an [iLink 2 Order Status Request](#) message for the rejected New Order, The [Execution Report - Order Status Request Acknowledgment \(tag 35-MsgType=8\)](#) message will contain a value of 'N/A' in tag 55-Symbol.

Security Definition Acknowledgment

The iLink [iLink 2 Security Definition](#) message is sent by CME Globex in response to an iLink Security Definition Request (tag 35-MsgType=c) message.

If the iLink Security Definition Request message is accepted, the CME Globex platform will process the instrument combination in the iLink Security Definition Request message to generate a unique Covered instrument and send a Covered Security Definition (tag 35-MsgType=d) message to the client system with tag 323-SecurityResponseType=2 (Accepted with revisions).

If the Security Definition Request message is rejected, the Security Definition message will contain tag 323-SecurityResponseType=5 (Reject) and tag 58-Text containing the reason (e.g. "Error creating contract: Contract is invalid: 'UD:U\$:CVT 0311250005' is identical to 'UD:U\$:CVT 0311250004'") for the reject.

 If an iLink Security Definition Request (tag 35-MsgType=c) is rejected as 'Contract is invalid' due to an already existing identical Covered instrument definition, it is strongly recommended that the client system reload all Security Definition messages.

The **repeating groups** in the Security Definition message are arranged in the following order:


1. Outright option or options spread or combination
2. Future (earlier expiration)
3. Future (latest expiration – when applicable)

Covered UDS Trade Notification

When a Covered instrument trades, CME Globex sends [Execution Reports](#) for the Covered instrument and each leg of the Covered instrument to the trade counterparties and broadcasts resulting market data messages.

Covered Trade Market Data

CME Globex will not broadcast the price for a Covered futures leg for a Covered trade. Customers can obtain futures price information from the market data Security Definition message for the Covered instrument.

 Tag 167-SecurityType will not be included in Execution Reports for the Covered instrument, but will contain 'OPT' or 'FUT' in the Execution Report for each leg comprising the Covered instrument.

Execution Report - Fill Exception

In some cases it will be possible that no Execution Report – Fill is received for the future repeating group of a Covered instrument if rounding rules result in no futures.