

# User Defined Spread - UDS

A User Defined Spread (UDS) is a multi-legged instrument created by a client for trading on the CME Globex platform. The user submits a request proposing the attributes of the spread (e.g. legs, leg ratio, leg option delta, etc.) and CME Globex processes the request. If accepted, CME Globex disseminates the tradable instrument to the market.

This page provides an overview of the following UDS topics:

- [UDS Instrument Types](#)
  - [Futures UDS Instruments](#)
- [UDS Terminology](#)
- [UDS Methodology](#)
- [UDS Creation and Market States](#)
- [UDS Composition](#)
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For more detailed information on UDS messaging, validation, and processing, please refer to these topics:

## UDS Instrument Types

Since UDS instruments are user-defined and initially created from available outright instruments, a variety of spread spreads and combinations can be created and are classified according to their component instruments as described below.

- **UDS Combo** - a UDS of option outrights; may be an exchange-recognized or generic spread type.
  - **Exchange Recognized UDS** - Spread structure matches that of a [standard CME Globex spread type](#). For example, an options spread having the structure of a Butterfly (buy1 sell2 buy1) will be disseminated as such.



The following exchange-recognized UDS types are supported for Futures UDS:

- [SB Balanced Strip](#)
- [WS Unbalanced Strip](#)
- [XS Inter-Commodity Strip](#)
  - Trading tick and notional value must be the same for all legs
- [SA Strip](#)
- [FS Strip](#)
- [SP Standard Calendar Spread](#)

**Note:** per destination UDS group, either SA or FS will be supported as an exchange-recognized spread type. No single group will support both SA and FS.

- **Unrecognized UDS** - Spread structure does not match the construction of any [standard CME Globex spread type](#), disseminated as a *Generic* (GN) spread type.
- **Recursive UDS** - Spread having at least 1 leg that is a UDS. Only one level of *recursion* is allowed. UDS instruments constructed recursively can contain up to a maximum of 40 total outright instruments.



For Futures UDS:

- All legs must be an exchange-recognized Strip UDS (SB, WS, XS, SA or FS)
- The recursive spread must be an exchange-recognized Strip UDS (SB, WS, XS, SA or FS).

- **Covered UDS** - Spread created by combining an outright option or options spread with up to 39 outright futures instruments, for a maximum of 40 instruments. Exchange-recognized spread types and unrecognized UDS can be used to construct a Covered spread, which is disseminated as a Covered (CV) spread type. A Covered spread is designed to be delta-neutral.

Refer to [User Defined Spread Types and Characteristics](#) for complete details on the UDS types described above.

## Futures UDS Instruments

Futures UDS have the following constraints:

- UDS futures are only supported for:
  - TL spreads in CBOT treasury futures (ZT, Z3, ZF, ZN, ZU, ZB)
  - GN, SB, WS, XS, SA, FS and SP spreads in Market Segments (tag 1300-MarketSegmentID) 78 and 80
    - EXCEPT for the CL group, which does not support UDS
- Futures UDS cannot be implied.

## UDS Terminology

UDS messaging relies on message **tag groups**, i.e., each instrument included in the UDS creation request is defined in a block of message values, which is repeated within the message for each component instrument.

Each repeating group may be referred to as a **leg**; however, a leg is not necessarily an outright instrument, but may contain a spread as in the case of a recursive UDS (see below).

## UDS Methodology

All UDS on CME Globex are constructed with the [iLink Security Definition Request \(tag 35-MsgType=c\)](#) message and acknowledged with the [iLink 2 Security Definition](#) message.

Once a spread is created, it is identified as a CME Globex exchange-recognized or unrecognized spread type by the value in tag 762-SecuritySubType broadcast in the market data Security Definition (tag 35-MsgType=d) message.



### Important

The order entry iLink Security Definition (tag 35-MsgType=d) message and the market data Security Definition (tag 35-MsgType=d) message have significant differences.

CME Group strongly recommends using the TCP order entry iLink Security Definition (tag 35-MsgType=d) as an acknowledgment and the market data Security Definition (tag 35-MsgType=d) REPLAY message as the instrument definition.

All defined and active spreads are disseminated at the beginning of the week, or at initial creation on the market data Incremental feeds, and looped on the market data Instrument Definition feeds.

## UDS Creation and Market States

[Security Definition Request \(tag 35-MsgType=c\)](#) messages are accepted during all [market states](#) except market close.

For a Security Definition Request (tag 35-MsgType=c) submitted during the CME Group maintenance window (4 pm - 4:45 pm CST Monday thru Friday), CME Globex will send a Security Definition Reject (tag 35-MsgType=d) message including tag 58=<User-defined functionality not available at this time>.

**If a UDS is created in a non-open group state:**

- the RFQ will **not** be auto-generated—clients must submit the RFQ when the destination group state returns to Open.
- the implied book will **not** be generated; the implied book will be auto-generated at market Open.

## UDS Composition

CME Globex allows a User Defined Spread (UDS) to be composed of instruments from multiple related security groups; the resulting UDS instrument then belongs to the UDS security group (U\$) as indicated in tag 1151-Security Group in the market data Security Definition message. For example, instruments from the following security groups may be used in a single UDS:

1. ZE
2. E0
3. E1

The resulting UDS will belong to the security group U\$, which contains all User Defined Spreads for Eurodollar Options.

The following are examples of Eurodollar options combinations allowed within a UDS and which would belong to security group U\$:

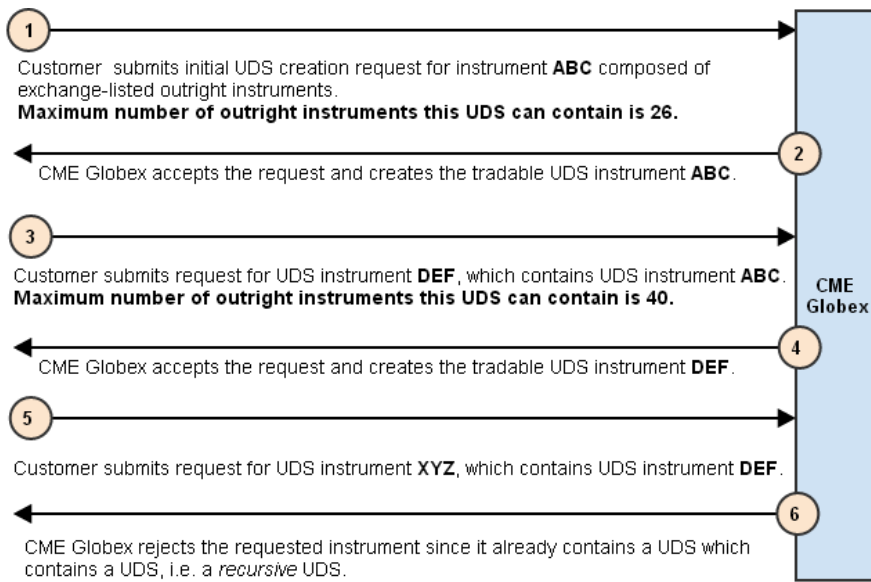
1. Buying one option from security group ZE and selling another option from security group ZE
2. Buying one option from security group E0 and selling another option from security group E0
3. Buying one option from security group E1 and selling another option from security group E1
4. Buying one option from security group ZE and selling another option from security group E0
5. Buying one option from security group E0 and selling another option from security group E1
6. Buying one option from security group ZE and selling another option from security group E1
7. Buying one option from security group ZE, buying one option from security group E0, and buying one option from security group E1

## UDS Recursion

A UDS can be constructed from available outrights or a combination of outrights and existing UDS instruments.

An Options UDS constructed from available options outrights only can contain a **maximum of 40 outright instruments**.

A UDS constructed from available outrights can be used as a building block in another UDS by means of *recursion*, or the process of creating a UDS which contains another UDS. CME Globex allows only one level of recursion. A recursive UDS can contain a **maximum of 40 outright instruments**, such that, when the UDS instrument is **decomposed**, all component instruments do not exceed 40.



### UDS Life Cycle

- A covered UDS expires at the end of the trading session in which it has been created.
- All other UDS instruments expire and are extended according to [UDS Expiration and Extension](#) rules.