

# CME MDP 3.0 Market Data

This page describes the MDP 3.0 features available for CME Globex futures and options markets and BrokerTec markets.

Use this search box to search the MDP 3.0 market data page tree.

## MDP 3.0 Features for Futures and Options and BrokerTec Markets on CME Globex

The table below outlines the MDP 3.0 features available for CME Globex futures and options markets and BrokerTec markets.

MDP 3.0 Service /Feature	CME Globex Futures and Options		BrokerTec on CME Globex			
	Supported	Description	MDP Premium Support	Conflated UDP Support	Conflated TCP Support	Description
<a href="#">Simple Binary Encoding (SBE)</a>	✓	Protocol for decoding and encoding messages in binary format.	✓	✓	✓	Protocol for decoding and encoding messages in binary format.
<a href="#">Dissemination</a>	✓	MDP 3.0 Dissemination Concepts	✓	✓	✓	Same as F&O
<a href="#">Event Based Market Data Messaging</a>	✓	<b>Event Based</b> - market data generated by <b>order activity</b> and <b>market state</b> events	✓	✓	✓	<b>Event Based</b> - market data generated by <b>order activity</b> and <b>market state</b> events. Additional examples of event processing for conflated feeds can be found in <a href="#">Conflated Market Data Processing</a> .
<a href="#">Trade Summary</a>	✓	Trade and trade-driven market data	✓	✓	✓	Trade and trade-driven market data. Additional examples of Trade Summary messages for conflated feeds can be found in <a href="#">Conflated Market Data Processing</a> .
<a href="#">Request for Quote</a>	✓	Sent to the market to request a quote for the given instrument	✓	✓	✓	Sent to the market to request a quote for the given instrument. Only available for U.S. Active channels (490, 500, and 510) and EGB channels (492, 502, and 511).
<a href="#">Conflated Market Data Processing</a>	✗	N/A	✗	✓	✓	Conflated market data combines multiple updates within an interval to a single event.
<a href="#">Correlating MDP 3.0 with Order Entry</a>	✓	Certain values transmitted in market data messages can be correlated with their counterpart iLink order entry message tags. This topic provides an overview and mapping of tags which can be correlated by the client.	✓	✓	✓	Same as F&O
<b>Book Management</b>						
<a href="#">Market by Price (MBP)</a>	✓	CME Group provides a multiple-depth Market by Price (MBP) book for most products.	✓	✓	✓	CME Group provides a multiple-depth Market by Price (MBP) book for most products. BrokerTec on CME Globex supports <a href="#">Inverted Price Book Processing</a> .
<a href="#">Implied Book Processing</a> <a href="#">Implied Book Consolidation</a> <a href="#">MDP 3.0 - Implied Matching Status</a>	✓	CME Group provides a 2-deep best bid and ask in the market for each implied-eligible contract	✓ US Actives only (channel 490)	✓ US Actives only (channel 500)	✓ US Actives only (channel 510)	CME Group provides a 2-deep best bid and ask in the market for each implied-eligible contract. BrokerTec U.S. Active channels (490, 500, and 510) support implied book order functionality.

Market by Order - Full Depth (MBOFD)	✓	CME Globex Market by Order (MBO) disseminates individual orders and quotes at every price level for the given instrument.	✓	✗	✗	CME Globex Market by Order (MBO) disseminates individual orders and quotes at every price level for the given instrument. See also: <a href="#">MDP 3.0 - Incremental Refresh SBE Template Book Processing</a>
Market By Order - Limited Depth (MBO LD) Book Processing	✗	N/A	✗	✗	✓	MBOLD sends the top 10 bid and ask orders on an order book for a given instrument. For BrokerTec M BOLD uses an overlay approach to book management that completely restates the MBOLD book with each new Market Data Snapshot Full Refresh message.
Inverted Price Book Processing	✗	N/A	✓	✓	✓	BrokerTec on CME Globex supports inverted pricing for yield, rate, or Repo trading for MBOFD, MBOLD and MBP books. Inverted books have bid prices higher than offers.
Mid-Session Order Quantity Update	✗	N/A	✗	✗	✓	Brokertec US and EU Repo only
All-Or-None Processing	✗	N/A	✗	✗	✓	Available for Repo only.
Bilateral Trading Relationship Processing	✗	N/A	✗	✗	✓	Bilateral trading allows permissioned firms to trade with other permissioned firms for the given bilateral product
<b>Statistics</b>						
Opening Price	✓	The Opening Price represents the first trade for the opening or re-opening of the instrument.	✓	✓	✓	Same as F&O
Indicative Opening	✓	Indicative opening indicates the price and quantity at which the market would open were the market to open at the given point in time.	✓ US Actives only (channel 490)	✓ US Actives only (channel 500)	✓ US Actives only (channel 510)	Indicative opening indicates the price and quantity at which the market would open were the market to open at the given point in time. Only U.S. Active channels (490, 500, and 510) will support indicative opening functionality. The 'Last Trade Price from prior session' is the tie-breaker rule to <a href="#">calculate the Indicative Opening Price</a> instead of the settlement price on CME Globex futures and options channels.
Session High and Low Trade Price	✓	The High Trade Price data block is sent when a trade occurs which results in the highest trade price for the current session. Likewise, the Low Trade Price data block is sent when a trade occurs which results in the lowest trade price for the current session.	✓	✓	✓	Same as F&O
Session Statistics Reset	✓	Statistics are sent on the Incremental Feed as they occur throughout a trading session. Certain statistics are also made available on the Market Recovery Feed with the <a href="#">Market Data Snapshot Full Refresh</a> .	✓	✓	✓	Same as F&O
Electronic Volume	✓	Electronic volume represents the number of contracts traded on CME Globex for the given instrument for the trading session.	✓	✓	✓	Same as F&O
High Bid and Low Ask	✓	The high bid and low ask prices are used to indicate the highest bid and lowest ask prices of the session	✗	✗	✗	N/A

<b>Cleared Volume</b>	✓	Cleared Volume data blocks contain the number of contracts that have been through the clearing process for an active instrument for the previous trading day.	✗	✗	✗	N/A
<b>Fixing Price</b>	✓	A volume-weighted average price for the nearby futures contract	✗	✗	✗	N/A
<b>Open Interest</b>	✓	The total number of contracts per instrument that are not yet offset or fulfilled for the previous trading day.	✗	✗	✗	N/A
<b>Settlement Price</b>	✓	Settlement is an official CME Group price established for the instrument at a given point in the trading day. CME Group staff determines the daily settlements for all contracts with volume or open interest.	✗	✗	✗	N/A
<b>Volume Weighted Average Price</b>	✗	N/A	✗	✗	✓	For Repo markets, the Volume Weighted Average Price (VWAP) is the average price an instrument has traded at throughout the day, based on both volume and price.
<b>Recovery</b>						
<b>UDP Multicast Recovery Services</b>	✓	Large-scale data recovery (e.g. major outage or late join) to synchronize client order books with the current state maintained by CME Group.	✓	✓	✗	Same as F&O
<b>Conflated TCP Market Recovery</b>	✗	N/A	✗	✗	✓	Recovery for conflated TCP systems.
<b>Channel Reset</b>	✓	Market Data Channel Reset provides a process for synchronizing order books and trade session statistics in the unlikely event of a CME Group dual component failure.	✓	✓	✓	Market Data Channel Reset provides a process for synchronizing order books and trade session statistics in the unlikely event of a CME Group dual component failure. See <a href="#">Example 6 - Market Data Channel Reset with Conflation</a> for a conflated example.
<b>Incremental Feed Arbitration</b>	✓	This optional functionality allows dual transmission on Incremental Feed A and Incremental Feed B allows client systems to arbitrate between feeds to ensure packet sequence integrity.	✓	✓	✗	This optional functionality allows dual transmission on Incremental Feed A and Incremental Feed B allows client systems to arbitrate between feeds to ensure packet sequence integrity.
<b>Market Recovery and Instrument Definition Rates</b>	✓	This page provides market recovery and instrument definition rates per MDP channel	✓	✓	✗	Same as F&O.
<b>MBP and MBOLD Market Recovery for the Conflated UDP Market Data Group</b>	✗	N/A	✗	✓	✗	Only available for non-Premium conflated UDP channels.