

TO: Montréal Exchange Participants & Vendors
FROM: Market Access Manager
SUBJECT: Multicast Feed Changes - Launch of HSVF D5 Protocol & Retiring Of D3 Protocol
DATE: July 24th, 2017

The Bourse de Montréal Inc (the Bourse) wishes to announce that it will upgrade its HSVF UDP Multicast Feed with the launch of the HSVF D5 Protocol (D5), effective November 2017. D5 will be available in the General Test Environment (GTE) in August 2017. For those utilizing the D3 protocol (D3) in multicast or unicast, you are strongly encouraged to move either to D4 protocol (D4) or D5 with the new release. HSVF D4 will continue to be available.

Note that the Bourse will no longer accept requests to connect to and/or develop towards D3 after August 2017. The table below reflects the upcoming changes with respect to the HSVF versions.

Summary

Protocol	HSVF Version	GTE Notes	Production Notes
Multicast	D3	Decommission August 2017	Decommission Feb 2018
Unicast	D3	Decommission Feb 2018	Decommission Feb 2018
Multicast	D4	No impact or change required	No Impact or change required
Multicast	D5*	Implementation August 2017	Implementation November 2017

* see below for list of enhancements

This notice provides participants an overview of the enhancements, from a technical specification perspective, that will be available in the D5 Protocol.

D5 protocol will consist of new features such as:

- Tick Table information in the HSVF feed
- Additional Information to link trade cancellation messages with the original trade
- A separate dissemination of the: PreviousSettlementPrice, SettlementPrice and the LastPrice
- Dissemination of the “Intervention Before Opening” group state
- Inclusion of Milliseconds in the Trade message
- Inclusion of a Timebeat message
- Addition of Delivery Type in the instrument key message
- Addition of a reason in the summary message
- Dissemination of the underlying on relevant products only
- Addition of Information fields for associated products to be developed in the future

Participants and vendors must support the new HSVF UDP Multicast Version D5 in order to have access to these new features.

HSVF Multicast Impacts

The table below highlights the impacted messages within the D5 Protocol

Message Type	Field Name	Field Length (in bytes)	Data Type
Message Type C- Option Trade - 87 Bytes	Timestamp	9	Numeric
	Trade Number	8	Alphabetic
Message Type CB- Future Option Trade - 78 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
	Timestamp	9	Numeric
	Trade Number	8	Alphabetic
Message Type CF- Future Trade - 71 Bytes	Root Symbol	6	Alphabetic
	Delivery Month	2	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type CS- Strategy Trade - 90 Bytes	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type CW - SWAP Future Trade - 60 Bytes	Root Symbol	6	Alphanumeric
	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric

Message Type DB - Future Options Request for Quote (RFQ) - 41 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
Message Type DF - Futures Request for Quote (RFQ) - 32 Bytes	Root Symbol	6	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
Message Type DW - Swap Future Request for Quote (RFQ) - 40 Bytes	Root Symbol	6	Alphanumeric
Message Type FB - Future Options Quote - 58 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
Message Type FF - Futures Quote - 48 Bytes	Root Symbol	6	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
Message Type FW - Swap Future Quote - 56 Bytes	Root Symbol	6	Alphanumeric
Message Type HB - Future Options Market Depth - Up to 179 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
Message Type HF - Futures Market Depth - Up to 170 Bytes	Root Symbol	6	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
Message Type HW - Swap Future Market Depth - (Up to 178 Bytes)	Root Symbol	6	Alphanumeric
Message Type I - Option Trade Cancellation - 79 Bytes	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type IB - Futures Options Trade Cancellation - 80 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric

Message Type IF - Futures Trade Cancellation - 62 Bytes	Root Symbol	6	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type IS - Strategy Trade Cancellation - 82 Bytes	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type IW - Swap Future Trade Cancellation - 64 Bytes	Root Symbol	6	Alphanumeric
	Timestamp	9	Numeric
	Trade Number	8	Alphanumeric
Message Type J - Option Instrument Keys - 138 Bytes	Tick Increment	6	Alphanumeric
	Delivery Type	1	Alphanumeric
Message Type JB - Future Options Instrument Keys - 125 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
	Tick Increment	6	Alphanumeric
	Delivery Type	1	Alphanumeric
Message Type JF - Futures Instrument Keys - 132 Bytes	Symbol - Root Symbol	6	Alphabetic
	Symbol - Deliver Year	2	Numeric
	Expiry Day	2	Numeric
	Delivery Type	1	Alphanumeric
	Underlying Symbol	10	Alphabetic
	Associated product - Root Symbol	6	Alphabetic
	Associated Product - Delivery Month	1	Alphabetic
	Associated Product - Delivery Year	2	Numeric
Message Type JS - Strategy Instrument Keys - 119 Bytes	Expiry Year	2	Numeric

Message Type JW - Swap Future Instrument Keys - 182 Bytes	Symbol - Root Symbol	6	Alphabetic
	Notional Principal Amount	8	Numeric
	Notional Principal Amount Fraction Indicator	1	Alphanumeric
	Delivery Type	1	Alphanumeric
Message Type N - Option Summary - 135 Bytes	Settlement Price	6+1	Numeric
	Previous Settlement Price	6+1	Numeric
	Reason	1	Alphanumeric
Message Type NB - Future Options Summary - 130 Bytes	Root Symbol	6	Alphabetic
	Expiry Year	2	Numeric
	Expiry Day	2	Numeric
	Settlement Price	6+1	Numeric
	Previous Settlement Price	6+1	Numeric
	Reason	1	Alphanumeric
Message Type NF - Future Summary - 120 Bytes	Root Symbol	6	Alphabetic
	Delivery Year	2	Numeric
	Delivery Day	2	Numeric
	Reason	1	Alphanumeric
	External Price at Source	6	Numeric
	External Price Fraction Indicator	1	Alphanumeric

Message Type NS - Strategy Summary - Min 185 Bytes/ Max 779 Bytes	Reason	1	Alphanumeric
Message Type NW - Swap Future Summary (164 Bytes)	Root Symbol	6	Alphabetic
	Reason	1	Alphanumeric
Message Type TT - Tick Table - 79 Bytes	Message Header	11	
	Tick Table Name	50	Alphanumeric
	Tick Table short name	2	Alphanumeric
	Nb. Entries	2	Numeric
	Entries (max. 30 blocks) - Min Price	6+1	Numeric
	Entries (Max. 30 blocks) - Tick Price	6+1	Numeric
Message Type Z - Timebeat - 20 Bytes	Message Header	11	
	Time	9	Numeric

Contact information

If you have any questions or require additional information, please contact the Technical Help Desk.

Technical Help Desk
Toll-free: 1 877 588-8489
Local : 514 871-7872
E-mail: samsupport@tmx.com

We thank you for your cooperation.
Market Access Manager