



MMT Technical Committee
Market Model Typology Initiative
Frequently Asked Questions

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Change History

Version	Date of Change	Description of Change
1.0	26 Oct, 2011	First public draft for release
1.1	16 Jan, 2012	- Minor correction to issue description of Q6 in “Venue-Specific Issues”: changed “In rows 22 and 23” to “In two of the rows”. - Updated name of “MMT Initiative Trade Flag Mapping Guide” in “Additional Documentation”
1.2	11 May, 2012	Added Q6 (Changes in Version 2.0 of the MMT Initiative Mapping Matrix) to the “General Issues” section.
1.3	15 May, 2014	Amended “Additional Documentation” section to include link to the MMT group on the FIX TC website. Updated wording in Q3 General Issues section to remove reference to Broker Crossing Networks. Added questions 7,8 and 9 to General Issues section.

Additional Documentation

The following additional documentation is available from the FIX Trading Community website (<http://www.fixtradingcommunity.org/pg/group-types/mmt>)

- MMT Initiative Trade Flag Mapping Guide
- MMT Initiative Guide
- MMT Initiative Mapping Matrix

Contents

Change History.....	2
Additional Documentation.....	3
INTRODUCTION.....	5
GENERAL ISSUES	6
Q1. “GIVE-UP”, “GIVE-IN”, “EX-DIVIDEND” AND “CUM-DIVIDEND” TRADES	6
Q2. REFERENCE PRICE AND LIS ORDER EXECUTIONS.....	6
Q3. ‘X’ AGENCY CROSS TRADES (adjusted on 10 th september 2014)	7
Q4. CESR/ESMA RECOMMENDED OTC TRADE CONDITIONS.....	7
Q5. TRADE TYPE DEFINITIONS.....	7
Q6. Changes in Version 2.0 of the MMT Initiative Mapping Matrix.....	7
Q7. WHEN TO SET THE EX/CUM DIVIDEND INDICATOR	8
Q8. APPLICABILITY OF SYSTEMATIC INTERNALISER TRADING MODE TO NON-MIFID SHARES.	9
Q9. USE OF THE OFF BOOK AUTOMATED INDICATOR.....	9
VENUE-SPECIFIC ISSUES	10
Q1. NYSE EURONEXT EXCEPTION TO THE AGENCY CROSS RULE.....	10
Q2. NYSE EURONEXT DATE AND TIMESTAMPS	10
Q3. BUDAPEST SE CLOB ENTRIES	10
Q4. BUDAPEST SE “OFF BOOK” MARKET MECHANISM	10
Q5. FRANKFURT XETRA BEST TRADES.....	11
Q6. SIX SWISS EXCHANGE MDI TRADE CANCELLATIONS	11
Q7. BUCHAREST SE AUCTION TRADES	11
Q8. BUCHAREST SE DEAL TRADES.....	11

INTRODUCTION

This document provides details of issues that have arisen and questions that have been asked during the Market Model Typology (MMT) initiative project and which may be useful to all interested parties.

All issues are divided into the following categories:

- **General Issues** These issues are of general relevance to the MMT Initiative.
- **Venue-Specific Issues** These issues are concerned with mappings from specific venues and may include descriptions of any data discrepancies.

The following fields are provided for each issue:

- **Issue** This field provides a description of the issue or question.
- **Solution** This field provides a description of the solution or response to the question as agreed by the MMT Technical Committee.

GENERAL ISSUES

Q1. "GIVE-UP", "GIVE-IN", "EX-DIVIDEND" AND "CUM-DIVIDEND" TRADES

Issue Details	
Issue	Can "Give-Up", "Give-In", Ex-Dividend" and "Cum-Dividend" trades be facilitated within regulated market trade reports, or simply applied to a relevant OTC transaction?
Solution	As per Paragraph 24 of the Technical Advice CESR/10-882, the recommended use of explicit trade flags for "Give-Up", "Give-In", Ex-Dividend" and "Cum-Dividend" is only relevant to OTC transactions. In line with this view, the MMT initiative only requires mapping to these explicit trade flags for relevant OTC transactions. The MMT initiative does not provision their mapping for trades reported within a regulated trading environment.

Q2. REFERENCE PRICE AND LIS ORDER EXECUTIONS

Issue Details	
Issue	Dark Trades – How should reference price order executions and Large in Scale (LIS) order executions be flagged in the MMT?
Solution	<p>It is clear from Article 29 in the latest Technical Advice that ESMA recommends that both of these execution types should be flagged as Dark Order Transactions.</p> <p>However, the MMT TC agreed that there is a need to further differentiate the pre-trade environment which facilitates these executions.</p> <p>The generic understanding of the MMT TC is that LIS Hidden Orders interact with LIT and other LIS Hidden Orders on a (Hybrid or Integrated) CLOB. Whereas, (mid-point) reference price Dark Orders interact on a separate (sometimes Virtual) dark book where only these orders interact.</p> <p>As per EMSA Technical Advice, Dark Executions should be flagged 'D' so we have introduced the Dark Trade type at Level 3.1, which should be applied to both Dark Executions resulting from LIS Hidden Order Trades and (mid-point) Reference Price Dark Order executions.</p> <p>The differentiation between the two types of execution will be made at MMT Level 1 by applying the correct Market Mechanism:</p> <ul style="list-style-type: none"> • Level 1 for (mid-point) Reference Price Dark Order executions – Dark Order Book • Level 1 for LIS Hidden Order Executions – CLOB <p>For example, we would expect the following attributes assigned at Levels 1 to 3 in the MMT Questionnaire:</p> <p>LIS Hidden Execution (On Hybrid CLOB):</p> <ul style="list-style-type: none"> • Level 1 = CLOB • Level 2 = Continuous • Level 3 = Dark Order Execution <p>Reference Price Dark Execution:</p> <ul style="list-style-type: none"> • Level 1 = Dark Order Book • Level 2 = Continuous • Level 3 = Dark Order Execution

Q3. 'X' AGENCY CROSS TRADES

Issue Details	
Issue	Use of the 'X' Agency Cross Trade flag in the MMT Initiative.
Solution	<p>"Trades where an investment firm has brought together two clients' orders with the purchase and the sale conducted as one transaction and involving the same volume and price." [see ESMA discussion paper released in May 2014, p. 159] .</p> <p>It is not meant to denote a trade facilitated via a Central Limit Order Book that coincidentally crosses as part of the activity of that book.</p>

Q4. CESR/ESMA RECOMMENDED OTC TRADE CONDITIONS

Issue Details	
Issue	There was much industry discussion during the consultation phase regarding the use of explicit OTC trade conditions for "Give-Up", "Give-In", Ex-Dividend" and "Cum-Dividend" trades. It was widely agreed that these trade conditions would fall under 'Technical Trades' rather than require explicit flags. However, Paragraph 24 of the <i>Technical Advice CESR/10-882</i> continues to explicitly recommend their use.
Solution	The MMT initiative must remain agnostic to such discussion and will include the recommendations made in the <i>Technical Advice CESR/10-882</i> . The MMT initiative works separately to any industry discussion and has no power of regulation itself. It has no choice but to agnostically adhere to the recommendations and amend the MMT initiative in line with any revised recommendation that may or may not result from such industry discussions.

Q5. TRADE TYPE DEFINITIONS

Issue Details	
Issue	In order to identify the type of some of the trades on a market, it is necessary to derive these trade type definitions from another message or field attribute. For example, one can only differentiate an auction trade from a continuous trading trade via a phase declaration in a phase change message. How do we indicate this in the MMT Questionnaire?
Solution	Pending the upgrade of data feeds to explicitly incorporate MMT trade type codes, it is perfectly acceptable to indicate rules for deriving the type of trade in the MMT Questionnaire. Add a column that explains the message and field that should be analysed in the column heading and, for each of the trades that you add in the rows below, describe which value or values for that message field would indicate that type of trade.

Q6. Changes in Version 2.0 of the MMT Initiative Mapping Matrix

Issue Details	
Issue	The MMT Initiative Mapping Matrix has been updated to version 2.0 and contains the changes described below.
Solution	<u>MMT Level 1 (Market Mechanism)</u>

	<p>This level is unchanged.</p> <p><u>MMT Level 2 (Trading Mode)</u></p> <p>Further to feedback from the Trade Data Standards Working Group (TDSWG), FIX Protocol Limited (FPL) and individual sell-side firms (CA Cheuvreux), the MMT Technical Committee identified the need to provide more granularity in the tagging of trades executed during auction phases. Based on research conducted by some MMT Technical Committee members, trades executed during auction phases have been split into four distinct categories, as follows:</p> <ul style="list-style-type: none"> • <i>Scheduled Opening Auction</i>: Batch process at a fixed pre-defined point in time at the beginning of official trading hours. • <i>Scheduled Closing Auction</i>: Batch process at a fixed pre-defined point in time at the end of official trading hours. • <i>Scheduled Intraday Auction</i>: Batch process(es) at fixed pre-defined point(s) in time during official trading hours. • <i>Unscheduled Auction</i>: Batch process that might occur at any time during official trading hours, for example reopening a process further to volatility interruptions, triggered by a breach of tolerance thresholds/limits. <p>In addition, the encoding has been changed from numeric to alphanumeric symbols to avoid overlapping values. The benefits of all of these changes are as follows:</p> <ul style="list-style-type: none"> • There is more granularity in auction trade flagging. • There is a clear distinction between scheduled and unscheduled auctions. • There is an explicit split between opening and closing trades. <p><u>MMT Level 3 (Transaction Type)</u></p> <p>The following changes have been made to this level:</p> <ul style="list-style-type: none"> • A separate MMT sub-level has been created for “Benchmark Indicator”. • A separate MMT sub-level has been created for “Ex/Cum Dividend Indicator”. • The “Trade with Conditions” flag has been moved into the “Transaction Category” sub-level (3.1). <p>The benefit of these changes is that more precise and comprehensive trade tagging is allowed as the flags are no longer mutually exclusive.</p> <p><u>MMT Level 4 (Publication Mode)</u></p> <p>This level is unchanged.</p>
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Q7. WHEN TO SET THE EX/CUM DIVIDEND INDICATOR

Issue Details	
Issue	It is not clear from the MMT matrix what the conditions are for setting the ex/cum dividend indicator.
Solution	<p>The ex/cum dividend indicator is intended to convey the role of the dividend in explaining why a trade price has occurred outside of the normal market price of the share.</p> <p>Therefore, the flag should only be set in two situations:</p> <ol style="list-style-type: none"> 1. when the traded price is conducted on a cum dividend basis when the share is in an ex dividend period. 2. when the traded price is conducted on an ex dividend basis when the share

	is in a cum div period.
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Q8. APPLICABILITY OF SYSTEMATIC INTERNALISER TRADING MODE TO NON-MIFID SHARES.

Issue Details	
Issue	For firms conducting Systematic Internaliser activity (SI), what Trading Mode should apply to any trading they conduct in non-MIFID shares.
Solution	To ensure consistent applicability of the MMT standard, it is recommended that firms who operate in an SI capacity should use the SI indicator at Level 2 for trades conducted in non-MIFID shares.

Q9. USE OF THE OFF BOOK AUTOMATED INDICATOR

Issue Details	
Issue	Version 2.2 of the MMT matrix introduces a new level 3.7 “Off Book Automated Indicator”. When does this apply?
Solution	<p>The definition of the Off Book Automated value of 'Q' is a concurrence of two key attributes, both of which must be met for the flag to be set:</p> <ol style="list-style-type: none"> I. A computerised process makes the decision to simultaneously match and execute the two sides that comprise the trade and; II. At least one side of the trade represents liquidity with which an external client could have interacted. <p>Notes:</p> <ol style="list-style-type: none"> 1. It should only be set for trades occurring with a Market Mechanism value of Off Book. 2. The L value is only intended to assist in identifying those off book trades occurring in an “automated” context as defined above. However, for clarity the absence of an L value simply means the trade did not occur in an automated context. No inference should be drawn about client accessibility to the trade.

VENUE-SPECIFIC ISSUES

Q1. NYSE EURONEXT EXCEPTION TO THE AGENCY CROSS RULE

Issue Details	
Issue	NYSE Euronext do not flag natural cross, however they do offer the possibility for a client to enter guaranteed cross trades (rule 4402 of our rule book: a transaction originating from buy and sell orders from the same member which does not interact with orders in the CLOB but whose price is constrained by prices of such orders).
Solution	An Agency Cross would not be regarded as occurring via the Central Limit Order Book (CLOB). However, NYSE Euronext appear to be an exception to the rule in this case and therefore we see CLOB at Level 1 and the Cross Trade attribute marked at Level 3.3.

Q2. NYSE EURONEXT DATE AND TIMESTAMPS

Issue Details	
Issue	The only difference between two of the NYSE Euronext 242 messages was that one had a “Non-Immediate” publication mode whereas the other had an “Immediate” publication mode; it was not possible to differentiate between them in the UTP-MD data feed.
Solution	It is possible to use date and timestamps to differentiate the messages. NYSE Euronext have added two extra columns to their questionnaire to indicate how both the original date and time are declared (“DateOriginalDecl” and “TimeOriginalDecl”) therefore enabling the user to determine that the trade is delayed. The comparison should be between this timestamp as defined in the source feed, and the time that the message was received by the vendor. If the time is greater than three minutes, the trade should be marked as “Non-Immediate”. If the trade arrived in less than three minutes since the timestamps in the data feed, the trade should be marked as “Immediate”.

Q3. BUDAPEST SE CLOB ENTRIES

Issue Details	
Issue	In the Budapest SE mappings, there is no flag to differentiate between the plain vanilla order entries in the Central Limit Order Book (CLOB).
Solution	For informational purposes, the Budapest SE have added a field in the proprietary area to include the Timestamp rule to differentiate between the different trades. In terms of MMT levels, the four CLOB entries will default to the majority case of trade reports: <ul style="list-style-type: none">• L1 Central Limit Order Book• L2 Continuous Trading• L3.1 Plain-Vanilla Trade• L3.2 No Negotiated Trade• L3.3 No Crossing Trade• L3.4 New Trade

Q4. BUDAPEST SE “OFF BOOK” MARKET MECHANISM

Issue Details	
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Issue	The first trade in the Budapest SE mappings has a Market Mechanism of "Off Book" and a Trading Mode of "Continuous Trading".
Solution	These trades are considered "Off Book" by the Budapest SE because they are not executed on a quote-driven or order-driven book. A separate order book is available for such orders while the trades are included in the trading list. Negotiated deal orders can be entered continuously, parallel with the main trading session and orders are matched automatically in the trading system.

Q5. FRANKFURT XETRA BEST TRADES

Issue Details	
Issue	Why are Frankfurt Xetra BEST trades flagged as "Off book" although they result from close interaction with Xetra's CLOB?
Solution	Xetra BEST orders in fact result in two related trade categories: one with the Xetra BEST Executor and an "offsetting" one between Xetra BEST Executor and CLOB orders. The latter are flagged as plain vanilla CLOB trades whereas the former ones have no direct and multilateral CLOB interaction. Only those that carry the proprietary Xetra BEST ('XB') flag and under MMT will be flagged as "Off book".

Q6. SIX SWISS EXCHANGE MDI TRADE CANCELLATIONS

Issue Details	
Issue	In two of the rows of the SIX Swiss MDI mappings, the MMT Matrix Level fields are listed as "Implied via Trade Identifier (for Cancellation/Amendment)" however there are no references back to the original trades and therefore it is not possible to discover what the original values are.
Solution	This reflects the current specification of MDI as a low latency pre-trade feed. SIX Swiss will conduct a gap analysis between current MDI data granularity and the MMT standard.

Q7. BUCHAREST SE AUCTION TRADES

Issue Details	
Issue	The Bucharest SE feed uses TAG 131 = 0 (Auction) to denote both Continuous and Auction Trades, however, there is some confusion generated by the meaning of 'auction'. For the Bucharest SE feed the term "auction" actually means any trade concluded during an auction trading phase <i>or</i> during continuous trading phase and there is no way to differentiate between auction trades and continuous trading trades.
Solution	The agreed default for trades marked TAG 131 = 0 is 'Central Limit OrderBook' at MMT Level 1 and 'Continuous Trading' at MMT Level 2.

Q8. BUCHAREST SE DEAL TRADES

Issue Details	
Issue	The Bucharest SE feed uses TAG 131 = 1 (Deal) to denote Off Book Trades. Deal trades are privately-negotiated transactions outside the exchange between two clients. In addition, Deal trades have to be consistent with market rules (price tunnel, tick size, trading schedule), are reported automatically and are

	included in daily trading summary.
Solution	Deal trades are classified as 'Off Book' at MMT Level 1 and 'Trade Reporting (On Exchange)' at MMT Level 2.