



**Trade Data Standardisation Working Group &
MMT Technical Committee**

**Market Model Typology Coverage – Flagging of
Automated OTC Trades**

[27 February 2014]

[Revision 0.3]

Proposal Status: ~~Public Comment~~[Approved](#)

For Global Technical Committee Governance Internal Use Only

Submission Date	Feb. 27, 2014	Control Number	EP186
Submission Status	Public Comment Approved	Ratified Date	March 13, 2014
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Document History

Revision	Date	Author	Revision Comments
0.1	31 Jan 2014	Jim Kaye	Initial version
0.2	12 Feb 2014	Jim Kaye	Updates after initial review
0.3	27 Feb 2014	Lisa T.	Cleanup edits prior to public comment based on feedback from GTC presentation
ASBUILT	13 Mar 2014	Rich Shriver	Created ASBUILT
	16 June 16, 2014		Updated mapping table in section 2.2
	22 Sep 2014	Rich Shriver	Revised reference to MMT to reflect the correct version of 2.2.

1 Introduction

1.1 Background and context of this gap analysis

1.1.1 Background - The MMT Initiative

The Market Model Typology (MMT) was developed through the collaborative efforts of European exchanges, Multilateral Trading Facilities (MTF), market data vendors and trade reporting venues as a means of standardizing post-trade data reporting. Market fragmentation can be seen as a natural by-product of competition but more action is needed to meet the challenges in the area of equity market data, in particular the post-trade transparency. Though much of this stems from an inherent lack of standards in the OTC market, Regulated Markets and MTFs also need to support a single industry standard that can be applied across all sources of post-trade data.

MMT enables translation between the trade types of a continuous trading platform (Regulated Markets (RM), MTF's, etc.) with the standard OTC trade conditions recommended in article 24 of (ESMA/CESR10-882). Due to the scale and complexity of coordinating the implementation of standard trade conditions across the industry as well as the potential regulatory dependencies for changing existing local market standards, MMT was designed to enable standardisation through abstraction while native adoption of standards can proceed in parallel. In many cases, MMT trade conditions will complement existing proprietary codes rather than replace them.

1.1.2 Scope of this Gap Analysis

A separate Gap Analysis has been produced to cover the accommodation of MMT codings in relevant FIX messages. This was based on version 2.2⁺ of the MMT model. Since the original Gap Analysis was written, the MMT has been extended to include the identification of 'automated' executions.

1.2 Proposed enhancements to FIX

1.2.1 MMT support in FIX message types

A previous gap analysis has requested that MMT in general should be supported by the following FIX message types: MarketDataSnapshotFullRefresh(35=X), MarketDataIncrementalRefresh(35=W), TradeCaptureReport(35=AE). As this gap analysis covers an extension of the MMT, this applies to those same messages.

1.2.2 Modified FIX Message types

The following message types require amendments:-

- TradeCaptureReport containing a new, optional field:
 - ExecMethod ([tbd2405](#))
- MarketDataSnapshotFullRefresh to be enhanced by **adding** to MDFullGrp
 - ExecMethod ([tbd2405](#))

- MarketDataIncrementalRefresh to be enhanced by adding to MDIncGrp
 - ExecMethod (~~4~~2405)

1.2.3 Modified FIX fields

New FIX field required as follows:

- ExecMethod (~~4~~2405): Values 0 (Undefined/unspecified), 1 (automated trade), and 2 (manual trade), optional field with absence implying 'undefined'

2 Business Workflow

2.1 Automated Trade Indicator

The existing MMT framework allows specific subsets of OTC data to be broken out from each other (for example Give-up/Give-in and Technical Trades). A number of sell side organizations have analysed the MMT (version 2.20) and agreed that ~~they would~~, in addition to the separation of trade types currently supported, ~~they~~ would ~~additionally~~ like there to be an explicit distinction between automated and manual trades. Using combinations of existing MMT fields was explored but it was eventually determined that classification of a trade as automatic was orthogonal to virtually all existing MMT field combinations and so a new MMT field is required.

This new MMT field needs to be supported in FIX messaging in the same messages (trade capture reporting and market data) as used for the existing MMT fields.

Guidance agreed by a number of sell side firms for flagging a trade as “automated” is for the flag to be used on trades which meet both of the following conditions:

- i) A computerised process makes the decision to match the two orders that comprise the trade and;
- ii) At least one side of the trade represents liquidity with which an external client could have interacted.

The list below outlines the most common examples where an auto indicator is likely to be set. Where the definition does not fully apply (for example in “manual” Systematic Internalizer (SI) trading) then the auto indicator must not be set.

- Some SI trading.
- Broker Crossing Networks (BCN) / Broker Crossing Systems (BCS) / dark pool trading
- OTC risk fills (with the ‘auto’ ones including both ‘direct to capital’ type systems and broker position-unwind mechanisms or similar).

Other attributes within the MMT framework should be set as appropriate; such as Benchmark and (Agency) Crossing indicators.

The table below illustrates various “auto” scenarios with the associated MMT values.

Scenario	Auto Indicator	MMT Level 1 (Market Mechanism)	MMT Level 2 (Trading Mode)	MMT Level 3.1 (Transaction Category)	MMT Level 3.3 (crossing indicator)	MMT Level 3.5 (benchmark indicator)
SI Trade	Yes	Off book	Trade Reporting (SI)	Plain-vanilla Trade	-	-
Agency Cross (e.g. BCN environment)	Yes	Off book	Trade Reporting (off-exchange)	Plain-vanilla Trade	Crossing Trade	-
Agency Cross with benchmark indicator (e.g. BCN environment)	Yes	Off book	Trade Reporting (off-exchange)	Plain-vanilla Trade	Crossing Trade	Benchmark Trade
Risk fill (e.g. BCN environment or “direct to capital systems”)	Yes	Off book	Trade Reporting (off-exchange)	Plain-vanilla Trade	-	-
Risk fill with benchmark indicator	Yes	Off book	Trade Reporting (off-exchange)	Plain-vanilla Trade	-	Benchmark Trade

In contrast to the other MMT codes, the auto indicator does not seek to uniquely identify the precise circumstances under which the trade occurred; rather it is simply seeking to group similar trades together.

2.2 Mapping of MMT Automated Trade Indicator to FIX

MMT Attribute	FIX message	FIX field (tag)	Value mapping MMT-> FIX
	TradeCaptureReport	ExecMethod(trd 2405)	trd M (Off book Non-Automated) -> ExecMethod(2405) = 1 (Manual) Q (Off book Automated)-> 2 ExecMethod(2405) = 2 (Automated)
	MarketDataIncrementalRefresh	ExecMethod(trd 2405)	trd M (Off book Non-Automated) -> ExecMethod(2405) = 1 (Manual) Q (Off book Automated)-> 2 ExecMethod(2405) = 2 (Automated)
	MarketDataSnapshotFullRefresh	ExecMethod(trd 2405)	trd M (Off book Non-Automated) -> ExecMethod(2405) = 1 (Manual) Q (Off book Automated)-> 2 ExecMethod(2405) = 2 (Automated)

The above mappings is based on values provided by MMT:

	Description	Automated Matching	Adressable liquidity
3,7	Off Book Automated Indicator		
	Unspecified or does not apply		
	Off Book Non-Automated	NO	NO
	Off Book Automated	YES	YES

3 Issues and Discussion Points

None

4 Proposed Message Flow

There are no proposed changes to any message flows.

5 FIX Message Tables

5.1 FIX Message TradeCaptureReport

Tag	Field Name	Req'd	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
<i>StandardHeader</i>		Y	BaseHeader	MsgType = AE		
<i>Component</i> <ApplicationSequenceControl>		N	ApplSeqCtrl			
<...truncated...>						
573	MatchStatus	N	MtchStat			
573	ExecMethod	N			NEW	Use for MMT AUTOMATED TRADE INDICATOR
574	MatchType	N	MtchTyp			
<...truncated...>						
<i>StandardTrailer</i>		Y	Trlr			

6 FIX Component Blocks

6.1 Component MDFullGrp

Component FIXML Abbreviation: <MDFullGrp>						
Tag	Field Name	Req'd	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
268	NoMDEntries	Y		Number of entries following.		
→	<...truncated...>					
→	829	TrdSubType	N			
→	484 2405	ExecMethod	N		NEW	Use for MMT AUTOMATED TRADE INDICATOR Can be used for MDEntryType=Trade(2)
→	574	MatchType	N			
→	<...truncated...>					
</MDFullGrp>						

6.2 Component MDIncGrp

Component FIXML Abbreviation: <MDIncGrp>						
Tag	Field Name	Req'd	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
268	NoMDEntries	Y		Number of entries following.		
→	<...truncated...>					
→	829	TrdSubType	N			
→	484 2405	ExecMethod	N		NEW	Use for MMT AUTOMATED TRADE INDICATOR Can be used for MDEntryType=Trade(2)
→	574	MatchType	N			
→	<...truncated...>					
</MDIncGrp>						

7 Category Changes

None

Appendix A - Data Dictionary

Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
104 2405	ExecMethod	NEW	int	<p>Specifies whether the transaction was executed via an automated execution platform or other method.</p> <p>Valid Values: 0 = Undefined/unspecified— (default when not specified) 1 =Manual [Elaboration: The transaction was executed in a manual or other non-automated manner.] 2 = Automated [Elaboration: The transaction was executed on an automated execution platform such as an automated systematic internalizer system, broker crossing network, broker crossing system, dark pool trading, "direct to capital" systems, broker position unwind mechanisms, etc.-]</p>	@ExecMeth	TradeCaptureReport MDIncGrp MDFullGrp

Appendix B - Glossary Entries

Appendix C - Abbreviations

Term	Proposed Abbreviation	Proposed Messages, Components, Fields where used
<u>Execution</u>	<u>Exec</u>	<u>ExecMethod</u>

Appendix D - Usage Examples