

Global Technical Committee and CME Group Trade Capture and Market Data Extensions

August 28October 31, 2015

Revision 0.76

Proposal Status: Approved Public Comment Resolution

For Global Technical Committee Governance Internal Use Only					
Submission Date	August 20, 2015	Control Number	<u>EP201</u>		
Submission Status	Approved Public	Ratified Date	<u>Nov 3, 2015</u>		
	Comment Resolution				
Primary Contact Person	Niranjana Sharma, CME	Release Identifier	5.0.SP3		
	Group				

DISCLAIMER

THE INFORMATION CONTAINED HEREIN AND THE FINANCIAL INFORMATION EXCHANGE PROTOCOL (COLLECTIVELY, THE "FIX PROTOCOL") ARE PROVIDED "AS IS" AND NO PERSON OR ENTITY ASSOCIATED WITH THE FIX PROTOCOL MAKES ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO THE FIX PROTOCOL (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF) OR ANY OTHER MATTER AND EACH SUCH PERSON AND ENTITY SPECIFICALLY DISCLAIMS ANY WARRANTY OF ORIGINALITY, ACCURACY, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SUCH PERSONS AND ENTITIES DO NOT WARRANT THAT THE FIX PROTOCOL WILL CONFORM TO ANY DESCRIPTION THEREOF OR BE FREE OF ERRORS. THE ENTIRE RISK OF ANY USE OF THE FIX PROTOCOL IS ASSUMED BY THE USER.

NO PERSON OR ENTITY ASSOCIATED WITH THE FIX PROTOCOL SHALL HAVE ANY LIABILITY FOR DAMAGES OF ANY KIND ARISING IN ANY MANNER OUT OF OR IN CONNECTION WITH ANY USER'S USE OF (OR ANY INABILITY TO USE) THE FIX PROTOCOL, WHETHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, LOSS OF DATA, LOSS OF USE, CLAIMS OF THIRD PARTIES OR LOST PROFITS OR REVENUES OR OTHER ECONOMIC LOSS), WHETHER IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), CONTRACT OR OTHERWISE, WHETHER OR NOT ANY SUCH PERSON OR ENTITY HAS BEEN ADVISED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED THE POSSIBILITY OF, SUCH DAMAGES.

DRAFT OR NOT RATIFIED PROPOSALS (REFER TO PROPOSAL STATUS AND/OR SUBMISSION STATUS ON COVER PAGE) ARE PROVIDED "AS IS" TO INTERESTED PARTIES FOR DISCUSSION ONLY. PARTIES THAT CHOOSE TO IMPLEMENT THIS DRAFT PROPOSAL DO SO AT THEIR OWN RISK. IT IS A DRAFT DOCUMENT AND MAY BE UPDATED, REPLACED, OR MADE OBSOLETE BY OTHER DOCUMENTS AT ANY TIME. THE FPL GLOBAL TECHNICAL COMMITTEE WILL NOT ALLOW EARLY IMPLEMENTATION TO CONSTRAIN ITS ABILITY TO MAKE CHANGES TO THIS SPECIFICATION PRIOR TO FINAL RELEASE. IT IS INAPPROPRIATE TO USE FPL WORKING DRAFTS AS REFERENCE MATERIAL OR TO CITE THEM AS OTHER THAN "WORKS IN PROGRESS". THE FPL GLOBAL TECHNICAL COMMITTEE WILL ISSUE, UPON COMPLETION OF REVIEW AND RATIFICATION, AN OFFICIAL STATUS ("APPROVED") OF/FOR THE PROPOSAL AND A RELEASE NUMBER.

No proprietary or ownership interest of any kind is granted with respect to the FIX Protocol (or any rights therein).

Copyright 2003-2015 FIX Protocol Limited, all rights reserved.

Table of Contents

Doc	ument	History	6		
1		uction			
2	Busine	ess Requirements			
	2.1	Trade Reporting			
	2.1.1	Voice-Brokered Trades	8		
	2.1.2	Multilateral Compression	8		
	2.2	Market Data	8		
	2.2.1	Option Strategies	8		
	2.3	Miscellaneous	. 11		
	2.3.1	Commercial Paper [GTC Sponsored]	. 11		
	2.3.2	Add TradeID(1003) to MDFullGrp [GTC Sponsored]	. 11		
3	Issues	and Discussion Points	. 11		
4	Propo	sed Message Flow	.12		
5	FIX Me	essage Tables	.12		
	5.1	FIX Message Advertisement	. 12		
	5.2	FIX Message IOI	. 14		
	5.3	FIX Message Email	. 15		
	5.4	FIX Message News	. 16		
	5.5	FIX Message MarketDataSnapshotFullRefresh	. 17		
	5.6	FIX Message MarketDataStatisticsReport	. 19		
	5.7	FIX Message MarketDataStatisticsRequest	. 20		
	5.8	FIX Message SecurityDefinitionRequest	.21		
	5.9	FIX Message SecurityDefinitionUpdateReport	. 22		
	5.10	FIX Message SecurityListRequest	. 23		
	5.11	FIX Message SecurityStatus	. 25		
	5.12	FIX Message SecurityStatusRequest	. 26		
6	FIX Co	mponent Blocks	. 28		
	6.1	Component InstrmtGrp	. 28		
	6.2	Component MDFullGrp	. 29		
	6.3	Component MDIncGrp	.31		
	6.4	Component InstrmtMDReqGrp	. 33		
	6.5	Component RelatedInstrumentGrp	. 34		
	6.6	Component SecListGrp	. 35		
	6.7	Component SecLstUpdRelSymGrp	. 37		
	6.8	Component SecMassStatGrp	. 38		
7	Catego	ory Changes	. 39		
	Appendix A - Data Dictionary40				
	Appendix B - Glossary Entries43				
•••		- Abbreviations			
		9 - Usage Examples			
Арр	endix E	- Public Comment Disposition	.47		

Comment E-1: Need for an ability to link spread trade market data when each leg is published as	5
separate trades	.47
Comment	.47
Disposition	.48

Table of Figures

Figure 1. Sample Stragey Trade	9
Figure 2. Strategy expressed in MarketDataSnapshotFullRefresh	9
Figure 3. Strategy expressed in MarketDataIncrementsIRefresh	. 10
Figure 4. Strategy expressed in MarketDataSnapshotFullRefresh – Tag-Value Format	.43
Figure 5. Strategy expressed in MarketDataIncrementslRefresh – Tag-Value Format	.45

Revision	Date	Author	Revision Comments
r0.1	5/26/2015	Dean Kauffman for CME Group	Initial draft based on internal gap analysis.
r0.2	6/8/2015	Dean Kauffman for CME Group	Added placeholder for market data extensions.
r0.3	8/13/2015	Dean Kauffman for CME Group	Added new enum to TrdType(828) for multilateral compression. Added enums to CPProgram(875) and updated descriptions to CPProgram(875) and CPRegType(876).
	8/14/2015		Moved multilateral compression to TrdSubType(829).
r0.4	8/18/2015	Dean Kauffman for CME Group	Refactored a bit based on LT's feedback. Clarified that we're only touching the pre- trade messages. Removed update of SecurityDefinition and revised the other SecDef messages to reflect changes already in the pipeline in EP197. Changed the title removing "Regulatory".
r0.5	8/25/2015	Dean Kauffman for CME Group	 Feedback from GTC presentation: Fixed typo in 2.2.1. Removed usage comments for InstrmtLegGrp in Email and News. Moved RelatedInstrumentGrp component into the InstrmtGrp component (Email & News) at the same hierarchical level as Instrument. Moved new components for MDIncGrp, MdReqGrp, SecListGrp, SecLstUpdRelSymGrp and SecMassStatGrp to represerve symantic grouping. Revised synopsis of RelatedInstrumentGrp to clarify that it belongs at the same hierarchical level as Instrument and that it describes relationships for that particular Instrument. Added elaborations of TrdSubType(829) Multilateral compression and all CPProgram(875) enums. Expanded elaboration of ExecMethod(2405) 1 "Manual" to include MTT "Off Book".

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

Revision	Date	Author	Revision Comments
			 Added new enum "Leg" to RelatedInstrumentType(1648) to handle disconnect between Instrument and InstrumentLeg as in Email and News. Clarified synopsis of <relatedinstrumentgrp></relatedinstrumentgrp>
r0.6	8/26/2015 8/28/2015	Dean Kauffman for CME Group	 Added further extension prior to public review: Added LegRefID(654) to <mdfullgrp> .to support reporting the price and size of legs in strategy trades. Added a sample trade and examples of the two MD messages.</mdfullgrp> Clarified that in the MktDataInc sample there is no structural relationship implied
0.7	Oct. 31, 2015	L. Taikitsadaporn for GTC	by the sequence of entries. <u>Changes made based on public comment</u> <u>feedback and disposition (see Appendix E):</u> <u>Added StrategyLinkID(1851) to the</u> <u>MDFullGrp and MDIncGrp</u> <u>Added TradeID(1003) to MDFullGrp -</u> <u>missing from this component</u>
	12/23/2015	<u>R. Shriver</u>	ASBUILT created.

1 Introduction

In CME Group's implementation to meet various reporting requirements, it has identified a further group of gaps needed to the FIX standard in order to complete its work. This proposal attempts to close those gaps.

In addition, a general concern over the FIX fields set aside for Commercial Paper is being addressed by the Global Technical Committee.

2 Business Requirements

2.1 Trade Reporting

2.1.1 Voice-Brokered Trades

The Agency for the Cooperation of Energy Regulators (ACER) is charged with collecting trade data for assessing and monitoring wholesale energy markets in the European Union. Market participants and third parties must provide the agency records of all market transactions and to facilitate this ACER prepared and distributed a Transaction Reporting User Manual giving details of the data elements required. The only gap identified in the FIX standard is a way to identify a trade that was voice brokered, i.e. negotiated by voice through a third party in the business of distributing market data.

Voice brokers pool prices from banks and transact in the interdealer market. For a number of years, regulators across the globe have attempted to monitor whether groups of traders are conspiring with voice brokers to influence rates and since 2009 this effort has resulted in a number of suspensions of traders, brokers and other employees and fines against the participating companies.

To satisfy the requirement for identifying a voice brokered trade we propose extending the ExecMethod(2405) field with an additional enumeration for "Voice-Brokered" and adjusting the existing elaboration for Manual to clarify that it applies to ordinary voice trades negotiated directly between counterparties.

2.1.2 Multilateral Compression

CME is preparing to offer a new trade compression product for cleared Interest Rate Swaps. CME stands in as the counterparty for all cleared trades and will periodically assess each clearing firm's IRS portfolio for compression candidates. Compressable trades are then proposed to each clearing firm and if accepted the old trades are terminated and a new "termination offset" trade is created. We need to be able to differentiate these compressed trades from trades created through normal netting.

To satisfy the requirement for identifying a multilateral compression trade we propose extending the TrdSubType(829) field with an additional enumeration for "Multilateral Compression". It will appear with TrdType(828)=57 "Netted trade".

2.2 Market Data

2.2.1 Option Strategies

A new CME Group business requirement calls for distribution of market data for Option Strategies in which the strategies are described in full. The gaps are to be able to describe strategy linkages fully and to provide prices and sizes of the legs of a traded strategy.

In order to describe multi-leg options including the underlying securities we propose populating all appropriate pre-trade messages and appropriate components with InstrumentExtension, FinancingDetails and RelatedInstrumentGrp components. Since our requirement involves only market data we are not addressing the trade and post-trade message groups at this time.

To provide leg price and size we propose adding LegRefID(654) to the **MDFullGrp** component. When a market data entry contains LegRefID(654) the MDEntryPx(270), PriceType(423) and MDEntrySize(271) all apply to the leg with that LegID(1788).

For example, in Figure 1 below we want to report not only the structure of the traded strategy but also the quantities and prices of all parts of the strategy. The structure is laid out in MarketDataSnapshotFullRefresh(35=W) – Figure 2 – through **Instrument, InstrumentLeg** and **UnderlyingInstrument** components plus instances of **RelatedInstrumentGrp** as needed to clarify linkage. The first iteration of **MDFullGrp** gives the price and size of the base strategy. Subsequent iterations of **MDFullGrp** give the price and size of each piece of the strategy linking to the corresponding leg's LegID(1788) through LegRefID(654).

We do not propose adding LegRefID(654) to the **MDIncGrp** component. In MarketDataIncrementalRefresh(35=X) the security is defined inside the **MDIncGrp** repeating group. In Figure 3 the first iteration of **MDIncGrp** lays out the full structure of the strategy through **Instrument**, **InstrumentLeg** and **UnderlyingInstrument** components plus instances of **RelatedInstrumentGrp** as needed to clarify linkage and includes the price and size of the base trade. Subsequent iterations of **MDIncGrp** define each leg separately and give the price and size of that piece of the strategy without the need for linkage. Note that the sequence of **MDIngGrp** entries does not imply any structural relationship among the entries.



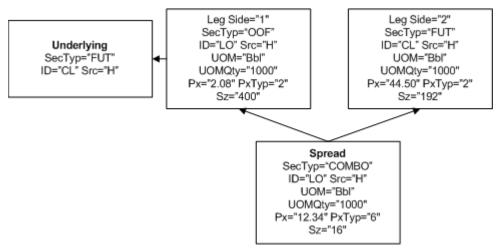


Figure 2. Strategy expressed in MarketDataSnapshotFullRefresh

The tag-value version of this message appears in Appendix D.

```
<?xml version="1.0" encoding="UTF-8"?>
<FIXML>
<MktDataFull TrdDt="2015-08-07">
<Hdr Snt="2015-08-07T13:37:51.608-05:00" SID="CPC" TID="MDP"/>
<Instrmt Sym="LO:GN" ID="LO" SecTyp="COMBO" Src="H" MatDt="2015-09-07" MMY="201510"
```

SubTyp="GN" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0"/>
<undly exch="NYMEX" id="CL" mmy="201510" sectyp="FUT" src="H"></undly>
<leg <="" id="LO" ratioqty="25" sectyp="OOF" side="1" src="H" subtyp="GN" sym="LOV5 C4500" td=""></leg>
Mat="2015-09-07" MMY="201510" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0" Strk="45.0"
PutCall="1" LegID="1"/>
<leg <="" id="CL" ratioqty="12" sectyp="FUT" side="2" src="H" subtyp="GN" sym="CLV5" td=""></leg>
Mat="2015-09-02" MMY="201510" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0" LegID="2"/>
<reltdinstrmt id="CL" instrmttyp="2" reltdid="LO" reltdidsrc="H" src="H"></reltdinstrmt>
<full <="" mdid="140C05149D42550100" mkt="CME" px="12.34" pxtyp="6" td="" trdpubind="Y" typ="2"></full>
TrdTyp="1" Sz="16">
<pty id="CME" r="21" src="D"></pty>
<full mdid="140C05149D42550100-1" px="2.08" pxtyp="2" refid="1" sz="400" typ="2"></full>
<full mdid="140C05149D42550100-2" px="44.50" pxtyp="2" refid="2" sz="192" typ="2"></full>

Figure 3. Strategy expressed in MarketDataIncrementsIRefresh

The tag-value version of this message appears in Appendix D.

<

xml version="1.0" encoding="UTF-8"?
<fixml></fixml>
<mktdatainc trddt="2015-08-07"></mktdatainc>
<hdr sid="CPC" snt="2015-08-07T13:37:51.608-05:00" tid="MDP"></hdr>
<inc <="" mdid="140C05149D42550100" mkt="CME" px="12.34" pxpubind="Y" pxtyp="6" sz="16" td="" typ="2"></inc>
TrdTyp="1" TxnTm="2015-08-07T13:37:51.608-05:00">
<instrmt <="" id="LO" matdt="2015-09-07" mmy="20151000" sectyp="COMBO" src="H" sym="LO:GN" td=""></instrmt>
SubTyp="GN" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0"/>
<undly exch="NYMEX" id="CL" mmy="201510" sectyp="FUT" src="H"></undly>
<leg <="" id="LO" ratioqty="25" sectyp="OOF" side="1" src="H" subtyp="GN" sym="LOV5 C4500" td=""></leg>
Mat="2015-09-07" MMY="20151000" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0" Strk="45.0"
PutCall="1"/>
<leg <="" id="CL" ratioqty="12" sectyp="FUT" side="2" src="H" subtyp="GN" sym="CLV5" td=""></leg>
Mat="2015-09-02" MMY="20151000" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0"/>
<reltdinstrmt id="CL" instrmttyp="2" reltdid="LO" reltdidsrc="H" src="H"></reltdinstrmt>
<pty id="CME" r="21"></pty>
<inc mdid="140C05149D42550100-1" px="2.08" pxtyp="2" sz="400" typ="2"></inc>
<instrmt <="" id="LO" sectyp="OOF" src="H" subtyp="GN" sym="LOV5 C4500" td=""></instrmt>
Mat="2015-09-07" MMY="20151000" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0" Strk="45.0"
PutCall="1"/>
<undly exch="NYMEX" id="CL" mmy="201510" sectyp="FUT" src="H"></undly>
<inc mdid="140C05149D42550100-2" px="44.50" pxtyp="2" sz="192" typ="2"></inc>
<instrmt <="" id="CL" sectyp="FUT" src="H" subtyp="GN" sym="CLV5" td=""></instrmt>
Mat="2015-09-02" MMY="20151000" Exch="NYMEX" UOM="Bbl" UOMQty="1000.0"/>

2.3 Miscellaneous

2.3.1 Commercial Paper [GTC Sponsored]

Various firms using FIX to trade and report Commercial Paper have questioned how to use the two FIX fields set aside for CP saying the descriptions are unclear. Also there are a number of CP programs not identified in the FIX enum list that are in use by the industry.

We propose extending the enumeration list for CPProgram(875) to include further values and to change the description of CPProgram(875) and CPRegType(876) to reflect proper usage.

2.3.2 Add TradeID(1003) to MDFullGrp [GTC Sponsored]

The TradeID(1003) field is currently present in the MDIncGrp component and is missing from the MDFullGrp component. This oversight in the omission of this field in the MDFullGrp may have been an inadvertent one. The GTC proposes to add this field into the MDFullGrp in order to allow for complete trade data to be conveyed in the MDFullGrp as well.

	lssue	Date	Status	Discussion
1	Netted Trade vs. Termination Offset	Aug 13, 2015	Resolved	Here is the text from EP141 when 57 "Netted Trade" was introduced. What is different about the new process? Trade netting is a process by which swap trades that are eligible can be netted together. The quantities are offset if the trades are in the opposite direction and aggregated if they are in the same direction. If the netting results in a total offset, all the trades will be terminated. If the netting results in a remaining quantity, a new trade may be created (or an existing trade amended). The new trade will be a cleared trade and the firm will be notified of the cleared trade. Firms need a mechanism to distinguish between the original trade and the new trade that is created as a result of the netting process. The proposal is to represent this using a new TrdType(828) enumeration of "Netted Trade".

3 Issues and Discussion Points

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

	Issue	Date	Status	Discussion
				engagement may allow trades that have different TrdType enumerations to be netted together. As such, preservation of the TrdType of the original trades to be netted together is not possible in the resulting netted trade. The resulting trade overwrites TrdType with the new "Netted Trade" enumeration. 8/14/2015 The resolution is to differentiate multilateral compression trades through a new value for TrdSubType(829).
2	RelatedInstrumentGrp position in messages with multiple Instruments	Aug 20, 2015	Resolved	An issue was raised in the GTC presentation about the proposed position of RelatedInstrumentGrp outside the InstrmtGrp repeating group. News and Email are already problematic in that the InstrmtLegGrp appears at the same level as InstrmtGrp making it impossible to relate legs to Instrument when there are multiple Instruments. The resolution is to move RelatedInstrumentGrp inside the InstrmtGrp associating it with a single Instrument and to add an enumeration "Leg" to RelatedInstrumentType(1648).

4 Proposed Message Flow

There are no changes to existing message flows.

5 FIX Message Tables

5.1 FIX Message Advertisement

To be completed at the time of the proposal – all information provided will be stored in the repository

Message Name	Advertisement
Message Abbreviated Name (for FIXML)	Adv
Category	Indication

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

Action		New	_X_Change	
Message Synopsis	No change.			
Required, short, one or two paragraph description of the message.				
Message Elaboration	No change.			
Optional longer				
description of the message usage				
	To be	finalized by FPI	L Technical Office	
(MsgType(tag 35) Enumeration		7		
Repository Component	ID	<u>8</u>		

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = 7		
(tru	incated)					
Instru	ument component	Y	Instrmt			Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
	umentExtension ponent	N	<mark>InstrmtExt</mark>		ADD	
	ncingDetails ponent	N	FinDetls		ADD	
Instr	mtLegGrp component	N	Leg			Number of legs Identifies a Multi-leg Execution if present and non-zero.
Undl	nstrmtGrp component	Ν	Undly			Number of underlyings
	t <mark>edInstrumentGrp</mark> ponent	N	ReltdInstrmt		ADD	
4	AdvSide	Y	@AdvSide			
(tru	incated)					

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

-		r		
Stana	lardTrailer	Y		

5.2 FIX Message IOI

To be completed at the time of the proposal – all information provided will be stored in the repository					
Message Name		101			
Message Abbreviated N FIXML)	ame (for	101			
Category		Indication			
Action		New _X_Change			
Message Synopsis Required, short, one or two paragraph description of the message.	No change.				
Message Elaboration Optional longer description of the message usage	No change.				
To be finalized by FPL Technical Office					
(MsgType(tag 35) Enumeration		6			
Repository Component	ID	2			

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = 6		
(trı	ıncated)					
Instr	ument component	Y	Instrmt			Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
	umentExtension ponent	N	<mark>InstrmtExt</mark>		ADD	

Partie	es component	N	Pty		Insert here the set of "Parties" (firm identification) fields defined in "Common Components of Application Messages".
	onent	N	FinDetIs		Insert here the set of "FinancingDetails" (symbology) fields defined in "Common Components of Application Messages"
Undlı	nstrmtGrp component	Ν	Undly		Number of underlyings
	<mark>edinstrumentGrp</mark> Jonent	N	ReltdInstrmt	ADD	
54	Side	Y	@Side		Side of Indication Valid subset of values: 1 = Buy 2 = Sell 7 = Undisclosed B = As Defined (for multilegs) C = Opposite (for multilegs)
(tru	ncated)				
Stan	dardTrailer	Y			

5.3 FIX Message Email

To be completed at the time of the proposal – all information provided will be stored in the					
		repos	itory		
Message Name		Email			
Message Abbreviated N FIXML)	ame (for	Email			
Category		EventCommunication			
Action		New	_X_Change		
Message Synopsis	No change.				
Required, short, one					
or two paragraph					

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

description of the message.		
Message Elaboration Optional longer description of the message usage	No change.	
	To be	finalized by FPL Technical Office
(MsgType(tag 35) Enum	eration	С
Repository Component ID		<u>13</u>

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = C		
(trı	ıncated)					
Instr	mtGrp component	N	Instrmt			Specifies the number of repeating symbols (instruments) specified
Undl	nstrmtGrp component	Ν	Undly			Number of underlyings
<mark>Instr</mark>	mtLegGrp component	N	Leg		<mark>CHAN</mark> GE	Number of legs Identifies a Multi-leg Execution if present and non-zero.
37	OrderID	Ν	@OrdID			
(trı	incated)					
Stan	dardTrailer	Y				

5.4 FIX Message News

To be completed at the time of the proposal – all information provided will be stored in the repository				
Message Name	News			
Message Abbreviated Name (for FIXML)	News			
Category	EventCommunication			
Action	New _X_Change			

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

Message Synopsis Required, short, one or two paragraph description of the message.	No change.				
Message Elaboration Optional longer description of the message usage	No change.				
	To be finalized by FPL Technical Office				
(MsgType(tag 35) Enumeration		В			
Repository Component	ID	<u>12</u>			

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = B		
(trı	ıncated)					
Instr	mtGrp component	N	Instrmt			Specifies the number of repeating symbols (instruments) specified
Instr	mtLegGrp component	N	Leg		<mark>CHAN</mark> GE	Number of legs Identifies a Multi-leg Execution if present and non-zero.
Undl	nstrmtGrp component	N	Undly			Number of underlyings
	OfTextGrp ponent	Y	TxtLn			Specifies the number of repeating lines of text specified
(trı	ıncated)					
Stan	dardTrailer	Y				

5.5 FIX Message MarketDataSnapshotFullRefresh

To be completed at the time of the proposal – all information provided will be stored in the repository

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.<u>7</u>

		1					
Message Name		MarketDat	MarketDataSnapshotFullRefresh				
Message Abbreviated N	lame (for	MktDataFull					
FIXML)	-						
Category		MarketDat	a				
Action		New	_X_Change				
Message Synopsis	No change.						
Required, short, one							
or two paragraph							
description of the							
message.							
Message Elaboration	No change.						
Optional longer							
description of the							
message usage							
To be finalized by FPL Technical Office							
(MsgType(tag 35) Enumeration		W					
Repository Component	ID	<u>30</u>					

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = W		
(tru	incated)					
Instru	ument component	Y	Instrmt			
	umentExtension ponent	N	<mark>InstrmtExt</mark>		ADD	
	<mark>icingDetails</mark> ponent	N	FinDetls		ADD	
Undi	nstrmtGrp component	Ν	Undly			
Instri	mtLegGrp component	N	Leg			Required for multileg quotes
	e <mark>dInstrumentGrp</mark> ponent	N	ReltdInstrmt		ADD	
779	LastUpdateTime	Y	@LastUpdat eTm			
(tru	incated)					
Stan	dardTrailer	Y				

5.6 FIX Message MarketDataStatisticsReport

To be completed at the time of the proposal – all information provided will be stored in the repository						
Message Name		MarketDataStatisticsReport				
Message Abbreviated N FIXML)	lame (for	MDStatsRpt				
Category		MarketData				
Action		New _X_Change				
Message Synopsis Required, short, one or two paragraph description of the message.	No change.					
Message Elaboration Optional longer description of the message usage	No change.					
To be finalized by FPL Technical Office						
(MsgType(tag 35) Enumeration		DP				
Repository Component	ID	<u>152</u>				

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = DP		
(tru	ıncated)					
Instr	ument component	Ν	Instrmt			
	umentExtension ponent	N	<mark>InstrmtExt</mark>		ADD	
	<mark>ncingDetails</mark> ponent	N	FinDetls		ADD	
Undl	nstrmtGrp component	Ν	Undly			
Instr	mtLegGrp component	Ν	Leg			
	e <mark>dInstrumentGrp</mark> ponent	N	<mark>ReltdInstrmt</mark>		ADD	

MDStatisticRptGrp component	Y	StatsRpt		Specifies the resulting statistics information and corresponding statistical parameters.
(truncated)				
StandardTrailer	Y			

5.7 FIX Message MarketDataStatisticsRequest

To be completed at the time of the proposal – all information provided will be stored in the repository						
Message Name		MarketDataStatisticsRequest				
Message Abbreviated N FIXML)	lame (for	MDStatsReq				
Category		MarketData				
Action		New	_X_Change			
Message Synopsis Required, short, one or two paragraph description of the message.	No change.					
Message Elaboration Optional longer description of the message usage	No change.					
To be finalized by FPL Technical Office						
(MsgType(tag 35) Enumeration		DO				
Repository Component	ID	<u>151</u>				

Tag Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
StandardHeader	Y		MsgType = DO	-	
(truncated)					
Instrument component	N	Instrmt			Used to specify an individual instrument or instrument attributes

				for which a single set of statistics is to be calculated.
InstrumentExtension component	N	<mark>InstrmtExt</mark>	<mark>ADD</mark>	
FinancingDetails component	N	FinDetls	<mark>ADD</mark>	
UndInstrmtGrp component	N	Undly		
InstrmtLegGrp component	N	Leg		
RelatedInstrumentGrp component	N	ReltdInstrmt	<mark>ADD</mark>	
MDStatisticReqGrp component	N	StatsReq		Used to specify the parameters for the calculation of statistics.
(truncated)				
StandardTrailer	Y			

5.8 FIX Message SecurityDefinitionRequest

To be completed at the time of the proposal – all information provided will be stored in the repository							
Message Name		SecurityDefin	SecurityDefinitionRequest				
Message Abbreviated N FIXML)	lame (for	SecDefReq					
Category		SecuritiesRef	erenceData				
Action		New	_X_Change				
Message Synopsis	No change.						
Required, short, one or two paragraph description of the message.							
Message Elaboration	No change.						
Optional longer description of the message usage							
To be finalized by FPL Technical Office							
(MsgType(tag 35) Enum	ieration	С					

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

Repository Component ID	<u>36</u>

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = c		
(tru	ıncated)					
Instr	ument component	Ν	Instrmt			
	umentExtension	N	InstrmtExt			
	<mark>ncingDetails</mark> ponent	N	FinDetls		ADD	
Undl	nstrmtGrp component	N	Undly			
	t edInstrumentGrp ponent	N	ReltdInstrmt			
15	Currency	Ν	@Ccy			
(tru	incated)					
Stan	dardTrailer	Y				

5.9 FIX Message SecurityDefinitionUpdateReport

To be completed at the time of the proposal – all information provided will be stored in the repository								
Message Name		SecurityDef	initionUpdateReport					
Message Abbreviated N FIXML)	Message Abbreviated Name (for FIXML)		SecDefUpd					
Category		SecuritiesRe	eferenceData					
Action		New	_X_Change					
Message Synopsis	No change.							
Required, short, one or two paragraph description of the message.								
Message Elaboration	No change.							
Optional longer description of the message usage								

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

To be finalized by FPL Technical Office			
(MsgType(tag 35) Enumeration BP			
Repository Component ID	<u>95</u>		

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = BP		
(tru	ıncated)					
Instr	ument component	Ν	Instrmt			
	umentExtension	N	InstrmtExt			
	<mark>ncingDetails</mark> ponent	N	FinDetls		ADD	
Undl	nstrmtGrp component	N	Undly			
	e dInstrumentGrp ponent	N	ReltdInstrmt			
15	Currency	N	@Ccy			
(tru	incated)					
Stan	dardTrailer	Y				

5.10 FIX Message SecurityListRequest

To be completed at the time of the proposal – all information provided will be stored in the repository						
Message Name		SecurityListRed	quest			
Message Abbreviated Name (for FIXML)		SecListReq				
Category	Category		SecuritiesReferenceData			
Action		New	_X_Change			
Message Synopsis Required, short, one or two paragraph description of the message.	No change.					
Message Elaboration	No change.					

Trade Capture and Market Data Extensions FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

Optional longer description of the message usage			
To be finalized by FPL Technical Office			
(MsgType(tag 35) Enumeration		x	
Repository Component ID		<u>57</u>	

Tag Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
StandardHeader	Y		MsgType = x		
(truncated)					
Instrument component	N	Instrmt			Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages" of the requested Security
InstrumentExtension component	N	InstrmtExt			Insert here the set of "InstrumentExtension" fields defined in "Common Components of Application Messages"
FinancingDetails component	N	FinDetls			Insert here the set of "FinancingDetails" fields defined in "Common Components of Application Messages"
UndInstrmtGrp component	Ν	Undly			Number of underlyings
InstrmtLegGrp component	N	Leg			Number of legs that make up the Security
RelatedInstrumentGrp component	N	ReltdInstrmt		ADD	
15 Currency	Ν	@Ccy			
(truncated)					
StandardTrailer	Y				

5.11 FIX Message SecurityStatus

To be completed at the time of the proposal – all information provided will be stored in the repository				
Message Name		SecurityStatu	S	
Message Abbreviated N FIXML)	lame (for	SecStat		
Category		SecuritiesRefe	erenceData	
Action		New	_X_Change	
Message Synopsis Required, short, one or two paragraph description of the message.	No change.			
Message Elaboration Optional longer description of the message usage	No change.			
To be finalized by FPL Technical Office				
(MsgType(tag 35) Enumeration		f		
Repository Component	ID	<u>39</u>		

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = f		
(tru	incated)					
Instr	ument component	Y	Instrmt			
	umentExtension	N	InstrmtExt			
	<mark>icingDetails</mark> ponent	N	FinDetls		ADD	
Undl	nstrmtGrp component	Ν	Undly			
Instr	mtLegGrp component	Ν	Leg			
	e <mark>dInstrumentGrp</mark> ponent	N	ReltdInstrmt		<mark>ADD</mark>	
15	Currency	Ν	@Ccy			

(truncated)			
StandardTrailer	Y		

5.12 FIX Message SecurityStatusRequest

To be completed at the time of the proposal – all information provided will be stored in the repository							
Message Name		SecurityStat	usRequest				
Message Abbreviated Name (for FIXML)		SecStatReq	SecStatReq				
Category		SecuritiesRe	ferenceData				
Action		New	_X_Change				
Message Synopsis Required, short, one or two paragraph description of the message.	No change.						
Message Elaboration Optional longer description of the message usage	No change.						
To be finalized by FPL Technical Office							
(MsgType(tag 35) Enum	ieration	е					
Repository Component	ID	<u>38</u>					

Tag	Field Name	Req ′d	XMLName	FIX Spec Comments	Action	Mappings and Usage Comments
Stan	dardHeader	Y		MsgType = e		
324	SecurityStatusReqID	Y	@StatReqID			Must be unique, or the ID of previous Security Status Request to disable if SubscriptionRequestTyp e = Disable previous Snapshot + Updates Request (2).

Instrument component	Y	Instrmt		Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
InstrumentExtension component	N	InstrmtExt		Insert here the set of "InstrumentExtension" fields defined in "Common Components of Application Messages"
FinancingDetails component	N	FinDetls	<mark>ADD</mark>	
UndinstrmtGrp component	Ν	Undly		Number of underlyings
InstrmtLegGrp component	N	Leg		Number of legs that make up the Security
<mark>RelatedInstrumentGrp</mark> component	N	ReltdInstrmt	<mark>ADD</mark>	
15 Currency	Ν	@Ccy		
(truncated)				
StandardTrailer	Y			

6 FIX Component Blocks

6.1 Component InstrmtGrp

To be completed at the time of the proposal – all information provided will be included in the repository				
Component Name		InstrmtGrp		
Component Abbreviate FIXML)	d Name (for	Inst		
Component Type		_X Block Repeating Block		
Category		(no change)		
Action		New _X_Change		
Component Synopsis	(no change)			
Required, short, one or two paragraph description of the component				
Component Elaboration Optional longer description of the component usage	(no change)			
To be finalized by FPL Technical Office				
Repository Component	ID	2017		

	Componer	nt FIXML	Abbr	eviation:	<inst></inst>	
Tag	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
146	NoRelatedSym	N				Specifies the number of repeating symbols (instruments) specified
>	Instrument component	N				Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"

	Component FIXML Abbreviation: < <i>Inst</i> >						
Tag	Field Name		ICR	Action	Mappings and Usage Comments	FIX Spec Comments	
<mark>→</mark>	InstrumentExtension component	N		<mark>ADD</mark>			
<mark>→</mark>	FinancingDetails component	N		ADD			
→	RelatedInstrumentGrp component	N		<mark>ADD</mark>			

6.2 Component MDFullGrp

To be completed at the time of the proposal – all information provided will be included in the repository				
Component Name		MDFullGrp		
Component Abbreviate FIXML)	d Name (for	Full		
Component Type		_X Block Repeating Block		
Category		(no change)		
Action		New _X_Change		
Component Synopsis	(no change)	•		
Required, short, one or two paragraph description of the component				
Component Elaboration	(no change)			
Optional longer description of the component usage				
To be finalized by FPL Technical Office				
Repository Component	ID	2031		

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

	Component FIXML Abbreviation: <full></full>						
Tag	Field Name		Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
268	NoMDI	Entries	Y				Number of entries following.
<i>→</i>	269	MDEntryType	Y				Required if NoMDEntries(268) > 0.
(trui	ncated,)					
→	<u>299</u>	<u>QuoteEntryID</u>	<u>N</u>				For optional use when this Bid, Offer, or Trade represents a quote
→	<u>1003</u>	<u>TradeID</u>	N		ADD		For optional use in reporting Trades.
▶	<u>1851</u>	<u>StrategyLinkID</u>	N		ADD		For optional use in reporting Trades. May be used to link together trades that are reported separately but are part of the same overall trade, e.g. spread trade and their constituent trades.
2	<u>288</u>	<u>MDEntryBuyer</u>	<u>N</u>				
	ncated,						
→	2445	AggressorTime	N				
→	2446	AggressorSide	N				
→	<mark>654</mark>	<u>LegRefID</u>	N		ADD		May be specified for an MDEntryType(269)=2 (<u>"</u> Trade) <u>"</u> entry to indicate that MDEntryPx(270), PriceType(423) and MDEntrySize(271) apply to the instance of the InstrmtLegGrp component with matching LegID(1788).
			</td <td>Full></td> <td></td> <td>l</td> <td></td>	Full>		l	

6.3 Component MDIncGrp

To be completed at the time of the proposal – all information provided will be included in the repository					
Component Name		MDIncGrp			
Component Abbreviated FIXML)	d Name (for	Inc			
Component Type		_X Block Repeating Block			
Category		(no change)			
Action		New _X_Change			
Component Synopsis	(no change)				
Required, short, one or two paragraph					
description of the					
component					
Component Elaboration	(no change)				
Optional longer					
description of the					
component usage					
To be finalized by FPL Technical Office					
Repository Component	ID	2032			

	Component FIXML Abbreviation:							
Тад	Field N	ame	Req'd	ICR	Action	Mappings and Usage	FIX Spec Comments	
						<i>Comments</i>		
268	NoMDEntries		Y				Number of entries following.	
<i>→</i>	279	MDUpdateAction	Y				Must be first field in this repeating group.	
(tru	(truncated)							
\rightarrow	Instrument component		Ν					
<mark>→</mark>	InstrumentExtension component		N		<mark>ADD</mark>			
→	<mark>Financ</mark>	ingDetails component	N		ADD			
→	UndInstrumentGrp component		N					
→	InstrmtLegGrp component		Ν					
<mark>→</mark>	RelatedInstrumentGrp component		N		<mark>ADD</mark>			

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

		Componer	nt FIXML	Abbr	eviation	: <inc></inc>	
Tag	Field Name		Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
1	291	FinancialStatus	N				
(trui	ncated)					
≁	<u>299</u>	<u>QuoteEntryID</u>	<u>N</u>				For optional use when this Bid, Offer, or Trade represents a quote
1	<u>1003</u>	<u>TradeID</u>	<u>N</u>				For optional use in reporting Trades
1	<u>1851</u>	<u>StrategyLinkID</u>	<u>N</u>		ADD		For optional use in reporting Trades. May be used to link together trades that are reported separately but are part of the same overall trade, e.g. spread trade and their constituent trades.
1	<u>288</u>	<u>MDEntryBuyer</u>	<u>N</u>				For optional use in reporting Trades
<u>(tru</u>	ncated						

6.4 Component InstrmtMDReqGrp

To be completed at the time of the proposal – all information provided will be included in the repository					
Component Name		InstrmtMDReqGrp			
Component Abbreviated FIXML)	d Name (for	InstReq			
Component Type		_X Block Repeating Block			
Category		(no change)			
Action		New _X_Change			
Component Synopsis Required, short, one or two paragraph description of the component	(no change)				
Component Elaboration Optional longer description of the component usage	(no change)				
To be finalized by FPL Technical Office					
Repository Component	ID	2022			

	Component	FIXML A	bbrev	viation: <	InstReq>	
Tag	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
146	NoRelatedSym	Y				Number of symbols (instruments) requested.
>	Instrument component	Y				Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
<mark>→</mark>	<mark>InstrumentExtension</mark> component	N		<mark>ADD</mark>		
<mark>→</mark>	FinancingDetails component	N		ADD		
→	UndInstrmtGrp component	Y				

	Component FIXML Abbreviation:						
Tag	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments	
→	InstrmtLegGrpcomponent	Y					
→	RelatedInstrumentGrp	N		<mark>ADD</mark>			
	component						
→	SpreadOrBenchmarkCurveData	Y					
	component						
(tru	(truncated)						

6.5 Component RelatedInstrumentGrp

To be completed a	t the time of th	ne proposal – all information provided will be included in the repository
Component Name		RelatedInstrumentGrp
Component Abbreviate FIXML)	ed Name (for	ReltdInstrmt
Component Type		Block RepeatingX_ Block
Category		(no change)
Action		New _X_Change
Component Synopsis Required, short, one or two paragraph description of the component	hierarchical I linkages betw entries and o UnderlyingIn then the Rela the Underlyin InstrumentLe contract <u>or the</u> every relation <u>RelatedInstru</u> <u>apply to the Instrume</u> <u>RelatedInstru</u>	nstrumentGrp is a repeating component at the same evel as the Instrument component, describing relationships and ween the Instrument, UnderlyingInstrument and InstrumentLeg other components in the message. If all instances of the strument in the message are true underliers of the Instrument atedInstrumentGrp component is not needed. If any instance of ngInstrument has a different relationship, e.g. underlier of an eg, stream, equity equivalent or nearest exchange-traded here are multiple instances of InstrumentLeg, then an entry for nship should be included in this component. When the umentGrp appears within a repeating group, each entry only Instrument component at the same hierarchical level. such as Email(35=C) and News(35=B), where Instrument and entLeg are within their repeating groups, the umentGrp component may be used to link legs and underliers to riate base Instrument.
Component Elaboration	(no change)	

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

Optional longer description of the component usage					
To be finalized by FPL Technical Office					
Repository Component ID		1066			

6.6 Component SecListGrp

To be completed at the time of the proposal – all information provided will be included in the repository								
Component Name		SecListGrp						
Component Abbreviated Name (for FIXML)		SecL						
Component Type		_X Block Repeating Block						
Category		(no change)						
Action		New _X_Change						
Component Synopsis	(no change)							
Required, short, one or two paragraph description of the component								
Component Elaboration Optional longer description of the component usage	(no change)							
To be finalized by FPL Technical Office								
Repository Component ID		2055						

	Component FIXML Abbreviation: <secl></secl>								
Tag	Field Name	Req' d	IC R	Actio n	Mapping s and Usage Comment s	FIX Spec Comments			
14 6	NoRelatedSym	Y				Specifies the number of repeating symbols (instruments) specified			

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

	Component FIXML Abbreviation: <secl></secl>						
Tag	Field Name	Req' d	IC R	Actio n	Mapping s and Usage Comment s	FIX Spec Comments	
→ (tr(Instrument component	Y				Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages" of the requested Security	
→	InstrumentLegSecListGrp component	Y					
<mark>→</mark>	RelatedInstrumentGrp component	N		<mark>ADD</mark>			
→	SpreadOrBenchmarkCurveD ata component	Y				Insert here the set of "SpreadOrBenchmarkCurveDa ta" fields defined in "Common Components of Application Messages"	
(tru	(truncated)						

6.7 Component SecLstUpdRelSymGrp

To be completed at the time of the proposal – all information provided will be included in the repository					
Component Name		SecLstUpdRelSymGrp			
Component Abbreviated FIXML)	d Name (for	SecL			
Component Type		_X Block Repeating Block			
Category		(no change)			
Action		NewX_Change			
Component Synopsis Required, short, one or two paragraph description of the component	(no change)				
Component Elaboration Optional longer description of the component usage	(no change)				
	To be finalized by FPL Technical Office				
Repository Component	ID	2087			

		Compo	nent Fl	XML	Abbrevia	tion: < <i>SecL</i> >	
Tag	Field N	lame	Req' d	IC R	Actio n	Mapping s and Usage Comment s	FIX Spec Comments
14 6	NoRela	atedSym	Y				Specifies the number of repeating symbols (instruments) specified
\rightarrow	1324	ListUpdateAction	Ν				
*	Instrui	ment component	Y				Insert here the set of "Instrument" (symbology) fields defined in "common components of application messages" of the requested Security
(trı	uncated.)					

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

<u>October 31</u>, 2015 - Revision 0.7

	Compo	nent Fl	XML	Abbrevia	ition: < <i>SecL</i> >	
Tag	Field Name	Req' d	IC R	Actio n	Mapping s and Usage Comment s	FIX Spec Comments
→	SecLstUpdRelSymsLegGrp component	Y				
<mark>→</mark>	RelatedInstrumentGrp component	N		ADD		
→	SpreadOrBenchmarkCurveDa ta component	Y				Insert here the set of " SpreadOrBenchmarkCurveD ata " fields defined in " COMMON COMPONENTS OF APPLICATION MESSAGES "
(trı	(truncated)					
			<td>ecL></td> <td></td> <td></td>	ecL>		

6.8 Component SecMassStatGrp

To be completed at the time of the proposal – all information provided will be included in the repository					
Component Name		SecMassStatGrp			
Component Abbreviated FIXML)	d Name (for	SecMassStat			
Component Type		_X Block Repeating Block			
Category		(no change)			
Action		New _X_Change			
Component Synopsis Required, short, one or two paragraph description of the component	(no change)				
Component Elaboration Optional longer description of the component usage	(no change)				
	To be finalized by FPL Technical Office				

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

Repository Component ID

<u>2186</u>

		Componen	t FIXML	Abbre	eviation:	<secmasssta< th=""><th>it></th></secmasssta<>	it>
Tag	Field	Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
146	NoRe	elatedSym	N				Number of exceptions with a trading status different from SecurityMassTradingStatus (1679).
7	→ Instrument component		N				Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages". Conditionally required if NoRelatedSym > 0.
→	→ InstrumentExtension component		N				Insert here the set of "InstrumentExtension" fields defined in "Common Components of Application Messages".
→	<mark>Finar</mark>	ncingDetails component	N		ADD		
→	Undl	nstrmtGrp component	N				
→ InstrmtLegGrp component		N					
→ RelatedInstrumentGrp component		N		<mark>ADD</mark>			
→	326	SecurityTradingStatus	N				Conditionally required if NoRelatedSym > 0.
(tru	incated	d)					

7 Category Changes

None.

Appendix A - Data Dictionary

Тад	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
<mark>829</mark>	TrdSubType	CHANGE	Reserved 1000Plus	Further qualification to the type of trade. Add enumeration value: 48 <tbd> = Multilateral-Ccompression [Elaboration: A subtype of TrdType(828) = 57 (<u>"Netted trade</u>)" in order to identify a special case of compression.]</tbd>	@TrdSubTyp	
875	CPProgram	CHANGE	Reserved 100Plus	Change as highlighted: The program under which a commercial paper offering is issued exempt from SEC registration identified by the paragraph number(s) within the US Securities Act of 1933 or as identified below. 1 = 3(a)(3) [Elaboration: Arrising out of a current transaction with a maturity less than 9 months.] 2 = 4(2) [Elaboration: Issued not involving any public offering.] 3 < tbd> = 3(a)(2) [Elaboration: Issued or guaranteed by the US, state or territorial government.] 4 < tbd> = 3(a)(3) & 3(c)(7) [Elaboration: Combination of 3(a)(3) and 3(c)(7).] 5 < tbd> = 3(a)(4) [Elaboration: Religious, education, benevolent, fraternal, charitable or reformatory purposes.] 6 < tbd> = 3(a)(5) [Elaboration: Issued by an institution supervised by state or federal	@CPPgm	

Trade Capture and Market Data Extensions FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

				authority or by an exempt farmer's cooperative.] <u>7<tbd>= 3(a)(7)</tbd></u> [Elaboration: Issued by a receiver or trustee in bankruptcy.] <u>8<tbd>= 3(c)(7) [Elaboration: Qualified hedge-fund under the Investment Company Act of 1940.]</tbd></u> 99 = Other		
<mark>876</mark>	<mark>CPRegType</mark>	CHANGE	String	Change as highlighted: The description of commercial paper registration or rule under which exempt commercial paper is offered. type of a commercial paper issuance For example "144a" "Tax Exempt" or "REG. S".	@CPRegT	
<mark>1648</mark>	RelatedInstrumentT ype	CHANGE	int	Add enumereation: <u>6<tbd></tbd></u> = Leg [Elaboration: Used to associate or link InstrumentLeg to Instrument in messages where there can be multiple instruments, such as in Email(35=C) and News(35=B) messages.]	@InstrmtTyp	
2405	ExecMethod	CHANGE	int	Change as highlighted: Specifies whether how the transaction was executed, e.g. via an automated execution platform or other method. 0 = Undefined/unspecified – (default when not specified) 1 = Manual [Elaboration: The transaction was executed in a manual or other non- automated manner e.g. by voice directly between the counterparties. Also used to identify MTT code M "Off Book Non- Automated".] 2 = Automated [Elaboration:]	@ExecMeth	

Trade Capture and Market Data Extensions FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

	3 <tbd> = Voice-brokered [Elaboration: The transaction was negotiated by voice</tbd>	
	through an intermediary.]	

Appendix B - Glossary Entries

None.

Appendix C - Abbreviations

None.

Appendix D - Usage Examples

Figure 4. Strategy expressed in MarketDataSnapshotFullRefresh – Tag-Value Format

Tag	Content	Field	Expansion
35	W	МѕдТуре	MarketDataSnapshotFullRefresh
75	20150807	TradeDate	
		<instrument></instrument>	
55	LO:GN	Symbol	
48	LO	SecurityID	
22	Н	SecurityIDSource	Clearing house
167	СОМВО	SecurityType	
762	GN	SecuritySubType	
200	201510	MaturityMonthYear	
541	20150907	MaturityDate	
996	Bbl	UnitOfMeasure	Barrels
1147	1000.0	UnitOfMeasuryQty	
207	NYMEX	SecurityExchange	
		<undinstrmtgrp></undinstrmtgrp>	
711	1	NoUnderlyings	
		→ <underlyinginstrument></underlyinginstrument>	
311	[N/A]	→UnderlyingSymbol	
309	CL	→UnderlyingSecurityID	
305	Н	→UnderlyingSecurityIDSource	Clearing house
310	FUT	→UnderlyingSecurityType	
313	201510	→UnderlyingMaturityMonthYear	
308	NYMEX	→UnderlyingSecurityExchange	
		<instrmtleggrp></instrmtleggrp>	
555	2	NoLegs	
		→ <instrumentleg></instrumentleg>	
600	LOV5 C4500	→LegSymbol	
602	LO	→LegSecurityID	
603	Н	→LegSecurityIDSource	Clearing house
1788	1	→LegID	-
609	OOF	→LegSecurityType	Option on Futures
764	GN	→LegSecuritySubType	
610	201510	→LegMaturityMonthYear	
611	20150902	→LegMaturityDate	
612	45.0	→LegStrikePrice	

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

Tag	Content	Field	Expansion
999	Bbl	→LegUnitOfMeasure	Barrels
1224	1000.0	→LegUnitOfMeasureQty	
616	NYMEX	→LegSecurityExchange	
623	25	→LegRatioQty	
624	1	→LegSide	Buy
1358	1	→LegPutOrCall	Call
		→ <instrumentleg></instrumentleg>	
600	CLV5	→LegSymbol	
602	CL	→LegSecurityID	
603	н	→LegSecurityIDSource	Clearing house
1788	2	→LegID	
609	FUT	→LegSecurityType	Futures
764	GN	→LegSecuritySubType	
610	201510	→LegMaturityMonthYear	
611	20150902	→LegMaturityDate	
999	Bbl	→LegUnitOfMeasure	Barrels
1224	1000.0	→LegUnitOfMeasureQty	
616	NYMEX	→LegSecurityExchange	
623	12	→LegRatioQty	
624	2	→LegSide	Sell
		<relatedinstrumentgrp></relatedinstrumentgrp>	
1647	1	NoRelatedInstruments	
1648	2	→ RelatedInstrument Type	Underlier
1650	CL	→RelatedSecurityID	
1651	Н	→RelatedSecurityIDSource	
2413	LO	→RelatedToSecurityID	
2414	н	→RelatedToSecurityIDSource	
		<mdfullgrp></mdfullgrp>	
268	3	NoMDEntries	
269	2	→MDEntryType	Trade
278	140C05149D42550100	→MDEntryID	
270	12.34	→MDEntryPx	
423	6	→PriceType	Spread
271	16	→MDEntrySize	
275	СМЕ	→MDMkt	
828	1	→TrdType	Block trade
1390	Y	→TradePublishIndicator	
		→ <parties></parties>	
453	1	→NoParties	
448	CME	→→PartyID	
447	D	$\rightarrow \rightarrow$ PartyIDSource	Proprietary
452	21	$\rightarrow \rightarrow$ PartyRole	Clearing organization
269	2	→MDEntryType	Trade
278	140C05149D42550100-1	→MDEntryID	
270	2.08	→MDEntryPx	
423	2	→PriceType	Per unit
271	400	→MDEntrySize	
654	1	→LegRefID	

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

Tag	Content	Field	Expansion
269	2	→MDEntryType	Trade
278	140C05149D42550100-2	→MDEntryID	
270	44.50	→MDEntryPx	
423	2	→PriceType	Per unit
271	192	→MDEntrySize	
654	2	→LegRefID	

Figure 5. Strategy expressed in MarketDataIncrementsIRefresh – Tag-Value Format

Tag	Content	Field	Expansion
35	Х	MsgType	MarketDataIncrementalRefresh
75	20150807	TradeDate	
		<mdincgrp></mdincgrp>	
268	3	NoMDEntries	
269	2	→MDEntryType	Trade
278	140C05149D42550100	→MDEntryID	
		→ <instrument></instrument>	
55	LO:GN	→Symbol	
48	LO	→SecurityID	
22	Н	→SecurityIDSource	Clearing house
167	СОМВО	→SecurityType	
762	GN	→SecuritySubType	
200	201510	→MaturityMonthYear	
541	20150907	→MaturityDate	
996	Bbl	→UnitOfMeasure	Barrels
1147	1000.0	→UnitOfMeasuryQty	
207	NYMEX	→SecurityExchange	
		→ <undinstrmtgrp></undinstrmtgrp>	
711	1	→NoUnderlyings	
		$\rightarrow \rightarrow <$ UnderlyingInstrument>	
311	[N/A]	→→UnderlyingSymbol	
309	CL	→→UnderlyingSecurityID	
305	Н	→→UnderlyingSecurityIDSource	Clearing house
310	FUT	→→UnderlyingSecurityType	
313	201510	$\rightarrow \rightarrow$ UnderlyingMaturityMonthYear	
308	NYMEX	→→UnderlyingSecurityExchange	
		→ <instrmtleggrp></instrmtleggrp>	
555	2	→NoLegs	
		$\rightarrow \rightarrow <$ InstrumentLeg>	
600	LOV5 C4500	→→LegSymbol	
602	LO	→→LegSecurityID	
603	Н	→→LegSecurityIDSource	Clearing house
609	OOF	→→LegSecurityType	Option on Futures
764	GN	→→LegSecuritySubType	
610	201510	$\rightarrow \rightarrow$ LegMaturityMonthYear	
611	20150902	$\rightarrow \rightarrow$ LegMaturityDate	
612	45.0	$\rightarrow \rightarrow$ LegStrikePrice	
999	Bbl	$\rightarrow \rightarrow$ LegUnitOfMeasure	Barrels
1224	1000.0	$\rightarrow \rightarrow$ LegUnitOfMeasureQty	

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

Tag	Content	Field	Expansion
616	NYMEX	$\rightarrow \rightarrow$ LegSecurityExchange	
623	25	$\rightarrow \rightarrow LegRatioQty$	
624	1	$\rightarrow \rightarrow LegSide$	Buy
1358	1	$\rightarrow \rightarrow$ LegPutOrCall	Call
		$\rightarrow \rightarrow <$ InstrumentLeg>	
600	CLV5	→→LegSymbol	
602	CL	$\rightarrow \rightarrow$ LegSecurityID	
603	н	$\rightarrow \rightarrow$ LegSecurityIDSource	Clearing house
609	FUT	$\rightarrow \rightarrow$ LegSecurityType	Futures
764	GN	→→LegSecuritySubType	
610	201510	$\rightarrow \rightarrow$ LegMaturityMonthYear	
611	20150902	→→LegMaturityDate	
999	Bbl	→→LegUnitOfMeasure	Barrels
1224	1000.0	$\rightarrow \rightarrow$ LegUnitOfMeasureQty	
616	NYMEX	$\rightarrow \rightarrow$ LegSecurityExchange	
623	12	→→LegRatioQty	
624	2	→→LegSide	Sell
		→ <relatedinstrumentgrp></relatedinstrumentgrp>	
1647	1	→NoRelatedInstruments	
1648	2	$\rightarrow \rightarrow$ RelatedInstrumentType	Underlier
1650	CL	$\rightarrow \rightarrow$ RelatedSecurityID	
1651	н	→ RelatedSecurityIDSource	
2413	LO	$\rightarrow \rightarrow$ RelatedToSecurityID	
2414	н	$\rightarrow \rightarrow$ RelatedToSecurityIDSource	
270	12.34	→MDEntryPx	
423	6	→PriceType	Spread
271	16	→MDEntrySize	
275	CME	→MDMkt	
828	1	→TrdType	Block trade
1390	Υ	→TradePublishIndicator	
		→ <parties></parties>	
453	1	→NoParties	
448	CME	→→PartyID	
447	D	→PartyIDSource	Proprietary
452	21	$\rightarrow \rightarrow$ PartyRole	Clearing organization
60	20150807T13:37:51.608	→TransactTime	
269	2	→MDEntryType	Trade
278	140C05149D42550100-1	→MDEntryID	
		→ <instrument></instrument>	
55	LOV5 C4500	→Symbol	
48	LO	→SecurityID	
22	Н	→SecurityIDSource	Clearing house
167	OOF	→SecurityType	Option on Futures
762	GN	→SecuritySubType	
200	201510	→MaturityMonthYear	
541	20150902	→MaturityDate	
202	45.0	→StrikePrice	
996	Bbl	→UnitOfMeasure	Barrels

FIX Protocol Gap Analysis - CME Trade Capture and Market Data Extensions v0.7_EP201_ASBUILT

October 31, 2015 - Revision 0.7

Tag	Content	Field	Expansion
1147	1000.0	→UnitOfMeasureQty	
207	NYMEX	→SecurityExchange	
201	1	→PutOrCall	Call
		→ <undinstrmtgrp></undinstrmtgrp>	
711	1	→NoUnderlyings	
		$\rightarrow \rightarrow$ <underlyinginstrument></underlyinginstrument>	
311	[N/A]	→→UnderlyingSymbol	
309	CL	→→UnderlyingSecurityID	
305	Н	→→UnderlyingSecurityIDSource	Clearing house
310	FUT	→→UnderlyingSecurityType	
313	201510	$\rightarrow \rightarrow$ UnderlyingMaturityMonthYear	
308	NYMEX	→→UnderlyingSecurityExchange	
270	2.08	→MDEntryPx	
423	2	→PriceType	Per unit
271	400	→MDEntrySize	
269	2	→MDEntryType	Trade
278	140C05149D42550100-2	→MDEntryID	
		→ <instrument></instrument>	
55	CLV5	→Symbol	
48	CL	→SecurityID	
22	Н	→SecurityIDSource	Clearing house
167	FUT	→SecurityType	Futures
762	GN	→SecuritySubType	
200	201510	→MaturityMonthYear	
541	20150902	→MaturityDate	
996	Bbl	→UnitOfMeasure	Barrels
1147	1000.0	→UnitOfMeasureQty	
207	NYMEX	→SecurityExchange	
270	44.50	→MDEntryPx	
423	2	→PriceType	Per unit
271	192	→MDEntrySize	

Appendix E - Public Comment Disposition

Comment E-1: Need for an ability to link spread trade market data when each leg is published as separate trades

Comment

We would also like to request the addition of @StrategyLinkID to the MktDataFull/Full and MktDataInc/Inc components.

While this proposal would allow for submission of market data on spread trades, including the quantity and price at both the spread and leg level, it has become evident that many market data consumers can only handle leg level messages and do not with to process the more complicated spread level message in order to extract legs. It seems the best solution here is to publish both a spread level message and a separate message for each leg on the market data feed. Firms wishing to process legs alone will simply ignore any spread level market data message, e.g. anything containing legs. But firms that do want to process the spread level message will then need a mechanism to ignore the additional leg level messages, otherwise they would double-count the trade. If both the spread and leg level messages carry an identical @StrategyLinkID field, then the receiver of the market data can link the messages together and ignore the legs that have the same @StrategyLinkID as the spread.

Disposition

After further discussions with the member submitting the comment, it was agreed that the StrategyLinkID(1851) would be added to the MDFullGrp and MDIncGrp components. This would allow market data trade messages the flexibility to report spread trades at the spread level as well as the individual trade leg level.

In the case of adding it to the MDFullGrp component as opposed to the main level of the MarketDataSnapshotFullRefresh(35=W) it was determined that adding the StrategyLinkID(1851) to the MDFullGrp makes more sense to not break other use cases for this message. Particularly, it is possible to report different types of completed trades for a given security. For example, an exchange might have several simultaneous trades for one calendar spread instrument, say, due to a complex match event. In this case, the exchange could send one MarketDataSnapshotFullRefresh(35=W) message for all of these where the spread instrument and legs would be defined at the main level, and each trade of the spread would be at the MDFullGrp component level. With each trade having two legs there would be three MDFullGrp instances or elements for each trade, which contain the spread price and quantity and each leg's price and quantity published as a separate trade. Each of these three MDFullGrp instances or elements would share the same StrategyLinkID(1851) value. However, the next trade in the message would have three more MDFullGrp instances or elements which would need a different StrategyLinkID(1851) values.