

Global Exchanges and Markets Committee Eurex Market Data Extensions

[August 1 2013]

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	Boerse								

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Document History

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0.1	July 10, 2013	Hanno, Deutsche Börse Group	Created
0.2	July 18, 2013	Hanno, Deutsche Börse Group	Minor updates and corrections after GExMC on July 15
0.3	August 1, 2013	Hanno, Deutsche Börse Group	Minor updates and corrections after GTC call on August 1
ASBUILT	<u>May 4, 2014</u>	L. Taikitsadaporn	Prep ASBUILT

1 Introduction

Within the Eurex Group, the Eurex Exchange, the International Securities Exchange and the European Energy Exchange provide market data for derivatives. This proposal comprises a number of small extensions to the standard FIX market data messages.

The detailed extensions are as follows:

- Add existing fields <u>TradeDate(75)</u> and <u>TransactTime(60)</u> to TradingSessionStatus(<u>35=h</u>) to convey business timestamps and to add the existing field <u>TradeDate(75)</u> to SecurityMassStatus(<u>35=CO</u>) and SecurityStatus(<u>35=f</u>).
- 2. Add existing field LastUpdateTime(779) to MarketDataSnapshotFullRefresh(35=W).
- 3. Add new fields <u>AggressorTime (TBD</u>2445) and <u>AggressorSide (TBD</u>2446) to convey timestamp and side of incoming order triggering match event.
- 4. Add new field **FastMarketIndicator(TBD**2447) to indicate whether instruments or sessions are in a fast market condition where different rules apply.
- 5. Addition of component <a>

 Addition of component

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- Add new fields <u>NumberOfBuyOrders(tbd2449)</u> and <u>NumberOfSellOrders(tbd2450)</u> to distinguish the number of buy and sell orders in a trade.
- 7. Add existing repeating group <<u>RelatedTradeGrp></u> to MarketDataSnapshotFullRefresh(<u>35=W</u>) and MarketDataIncrementalRefresh(<u>35=X</u>) to convey leg trades of a multi-leg trade.
- 8. Add new valid value "<u>Previous Closing Price</u>" to the existing field MDEntryType(269) to convey closing price of previous business day.
- Add new field <u>SettlPriceDeterminationMethod</u> (TBD 2451) to convey calculation method of settlement price.
- 10. Add a number of new valid values to the existing field TradeCondition(277) to flag trades, e.g. as new high or low prices of the session.
- Add new valid values "<u>Customer professional</u>" and "<u>Do not trade through</u>" to the existing field MDSecSizeType(1178) to convey quantities of high volume customers and quantities that cannot be traded through away markets.
- 12. Add a new valid value "<u>Holiday</u>" to the existing field TradingSessionID(336) to support markets with product-specific business days.
- 13. Add new valid value "<u>Corporate Action</u>" to the existing field SecurityTradingEvent(1174) to convey the fact that there was a corporate action of some kind.
- 14. Add new field <u>LinkageHandlingIndicator (**TBD**2448)</u> to indicate whether an instrument is currently subject to linkage handling.
- 15. Add a new valid value "<u>RemovalWithdrawal</u>" to the existing field NewsRefType(1477) to formally withdraw a news item.
- 16. Miscellaneous changes to correct or align usages across market data messages.

2 Business Requirements

The following sections describe each of the business requirements in detail.

2.1 Business Timestamps in Status Messages

FIX provides the TradingSessionStatus(<u>MsgType35</u>=h), SecurityMassStatus(<u>MsgType35</u>=CO), SecurityStatus(<u>MsgType35</u>=f) messages to convey status information related to sessions of a market, market segment, groups of instruments, or single instrument. However, the messages do not all have a trading date as well as business level timestamp to convey the time at which a state change or event occurred.

It is proposed to add the existing fields <u>TradeDate(75)</u> and <u>TransactTime(60)</u> to TradingSessionStatus(<u>35=h)</u> and to add the existing field <u>TradeDate(75)</u> to SecurityMassStatus(<u>35=CO)</u> and SecurityStatus(<u>35=f)</u>.

2.2 Business Timestamps in Snapshot Messages

FIX provides the field TradeDate(75) on the root level of the MarketDataSnapshotFullRefresh (MsgType35=W) message but does not offer a timestamp on this level to convey the point in time that the last change of market data in this instrument occurred. This is useful when snapshots are not event driven but sent in a cyclic manner for recovery purposes and the user wants to know how liquid an instrument is.

It is proposed to add the existing field <u>LastUpdateTime(779)</u> to MarketDataSnapshotFullRefresh(<u>35=W)</u>.

2.3 Aggressor Information

Incoming orders typically receive one or more timestamps within the exchange infrastructure. A matching engine with a price-time matching algorithm has a single incoming order that triggers a matching event during continuous trading. This order is deemed to be the "aggressor" if it leads to a trade and hence removes liquidity. It is useful to distinguish between aggressive buy and sell orders.

Trades are published through market data and FIX allows to convey the time of the matching event through MDEntryTime(273). However, participants cannot use this timestamp to determine how far behind their order was compared to the aggressor's order. This is important to know in high speed environments.

It is proposed to add new fields <u>AggressorTime(TBD</u>2445) and <u>AggressorSide(TBD</u>2446) to the components <MDIncGrp> and <MDFullGrp>.

2.4 Indicator for a Fast Market Condition

Information related to the companies behind securities can cause significant price movements when it becomes public. This is called a "Fast Market". Market making obligations are typically tied to a predefined spread between <u>the</u> bid and ask that must be provided. Exchanges hence define special rules when changing to a fast market for one or more instruments or even for the entire trading session, e.g. by allowing spreads to become wider.

FIX currently partially supports the indication of a fast market. Quotes and trades can be marked as being subject to a fast market by means of the fields QuoteCondition(276) and TradeCondition(277). The trading status of an instrument can be changed to fast market with SecurityTradingStatus(326). The requirement is to be able to indicate a fast market independent of a quote, trade or trading status. This allows for example to indicate a fast market as an additional restriction to the current security trading status or as a restriction of a trading session status. It also allows to for defininge trading rules based on this indicator (subject to a separate proposal for reference data).

It is proposed to add a new Boolean field **FastMarketIndicator**(**TBD**2447) to a number of market data messages. the following:

- Add to MarketDataRequest(<u>35=V</u>) message to subscribe to market data during fast market
- Add to TradingSessionStatus(<u>35=h)</u> message as session wide trading status information
- Add to SecurityStatus(<u>35=f</u>) message as secondary trading status information
- Add to SecurityMassStatus(<u>35=CO</u>) message as secondary trading status information across instruments
- Add to <MDIncGrp> and <MDFullGrp> components as secondary trading status information

2.5 Market (Segments) as Request Filters

The FIX MarketDataRequest(35=V) message allows limiting the results to a list of instruments by means of the component <InstmtMDReqGrp>. It is proposed to extend the filter criteria by adding the existing component <MarketSegmentScopeGrp>, allowing the requester to limit the scope to a list of markets or market segments.

2.6 Number of Orders Involved in a Trade

FIX provides information on the number of orders for the buy or sell side on a given price level by means of the field NumberOfOrders(346) in conjunction with MDEntryType(269) = 0 (Bid) or 1 (Offer). However, this does not apply to trades where MDEntryType(269) = 2 (Trade). The number of orders cannot be distinguished between buy and sell side.

It is proposed to add two new fields <u>NumberOfBuyOrders(TBD</u>2449) and <u>NumberOfSellOrders(TBD</u>2450) to components <MDIncGrp> and <MDFullGrp> to distinguish the number of buy and sell orders in a trade.

2.7 Related Trades of a Multi-Leg Trade

FIX provides a number of fields in the market data messages to convey attributes of a trade. The requirement is to add the ability to convey a list of identifiers for the trades in the legs of a multi-leg trade. This also allows the reconciliation of separate streams for multi-leg and single leg trades whereby the single leg stream contains trades from both outright simple instruments as well as from simple instruments making up a complex instrument. The usage should not be limited to the use case described above, i.e. other relationships of trades are possible and should be supported.

It is proposed to add the existing repeating group <<u>RelatedTradeGrp></u> to both -components <MDIncGrp> and <MDFullGrp>.

2.8 Previous Closing Price

FIX provides the previous closing price of an instrument in a number of order maintenance messages but not as part of market data which only allows conveying a current closing price. It is a requirement to be able to provide both the closing prices of both the previous and the current day.

It is proposed to add a new valid value "Previous Closing Price" to the existing field MDEntryType(269).

2.9 Settlement Price Information

FIX provides the fields SettlPrice(730) and SettlPriceType(731) to convey a settlement price and whether it is final or theoretical. These fields are not available as part of the SecurityStatus(<u>MsgType35</u>=f) message which currently includes a high, low, first and last price for the session. For market data messages the field MDEntryType(269) = 6 (Settlement Price) allows to convey a settlement price but not its type.

It is proposed to add the existing fields <u>SettlPrice(730)</u> and <u>SettlPriceType(731)</u> to SecurityStatus(<u>MsgType35</u>=f) and to add the existing field <u>SettlPriceType(731)</u> to the components <MDIncGrp> and <MDFullGrp>.

FIX currently does not allow to a means to convey the way that a settlement price was determined. It could be based on a number of different prices or be provided manually.

It is proposed to add a new field <u>SettlPriceDeterminationMethod(TBD</u>2451) to SecurityStatus (<u>MsgType35</u>=f) the components <MDIncGrp> and <MDFullGrp> with the following values.

- Last trade price
- Last bid price
- Last offer price
- Mid price <u>Average The price at the mid-point</u> between last bid and last offer price
- Average of last trade prices Average price across bi-laterally agreed number of trades, e.g. last 5 trades
- Average of last trade period Average price across bi-laterally agreed time period, e.g. last minute of trading

- Underlying price Based on price of underlying instrument
- Calculated Other calculation method, e.g. theoretical price
- Manual Manually entered price

2.10 Additional Trade Conditions

FIX provides the field TradeCondition(277) to flag trades with one or more attributes. There are a number of attributes that are not covered and should be added as new valid values.

- Trade Through Exempt Trade ignored prices on away market
- Last Auction Trade represents outcome of last auction
- High Price Trade establishes new high price for the session
- Low Price Trade establishes new low price for the session
- Systematic Internalizer Trade conducted by systematic internalizer
- Away Market Trade conducted on away market
- Midpoint Price Trade represents current midpoint price
- Traded before issue date Trade conducted during subscription phase of new issue
- Previous Closing Price Trade represents closing price of previous business day
- NBBO Price Trade price within National Best Bid and Offer (NBBO)

2.11 Additional Order Book Quantities

The existing component <SecSizesGrp> allows to convey additional quantities to provide more detail about the quantity of a market data entry given by MDEntrySize(271). Currently, only one type of secondary size is supported, i.e. customer quantities. There are additional types that are not covered and should be added as new valid values.

- Customer professional Quantity of high-volume customers acting similar to broker-dealers
- Do not trade through Quantity that cannot trade through the away markets

2.12 Trading Session Holiday

FIX provides the field TradingSessionID(336) to convey trading sessions. In a multi-product environment across countries, some of the products may not be available for trading due to a local holiday in the respective country. Product specific sessions can be conveyed by using the <Instrument> component block as part of the TradingSessionStatus(MsgType35=h) message. The requirement is to support product-specific business days.

It is proposed to add a new valid value "Holiday" to the existing field TradingSessionID(336).

2.13 Corporate Action Trading Event

FIX provides the ability to convey a specific corporate action or just the fact that there has been such an event in a number of messages. Many of the market data messages have the field CorporateAction(292)

to convey a specific corporate action. However, it is not possible to convey such a trading event -as part of state change information in a generic way without specifying the action itself.

It is proposed to add a new valid value "<u>Corporate Action</u>" to the existing field SecurityTradingEvent(1174).

2.14 Indicator for (In)Active Linkage Handler

In the US options markets, it is normally not allowed to trade through another market, i.e. customer orders must not be matched locally if an away market currently has a better price. The order is then locked to a local market maker who can then attempt to get the better price at the away market and then match the locked order at that price. The associated processes are called linkage handling and may be active or inactive for a given instrument.

It is proposed to add a new Boolean field <u>LinkageHandlingIndicator</u>(**TBD**2448) to the SecurityStatus(<u>35=f)</u> message.

2.15 Withdrawal of News

FIX provides the field NewsRefType(1477) to qualify the reference to another news item. It is currently not possible to formally withdraw a news item, only a replacement is supported where the content can change or reverse the related news item.

It is proposed to add a new valid value "Withdrawal" to the existing field NewsRefType(1477).

2.16 Miscellaneous

This section is intended to cover changes not directly related to the business requirements listed above that can be covered as part of this Gap Analysis. The changes are about corrections or alignments of usage comments across market data messages.

- TrdType(828) Alignment of field usage comment to define optional usage in both <MDFullGrp> and <MDIncGrp>, as it is currently only optional in <MDIncGrp>.
- MDEntrySize(271) Removal of conditional requirement for MDEntryType(269) = Q (Auction Clearing Price) in both <MDFullGrp> and <MDIncGrp>, as there are use cases where the quantity must not be disclosed.

3 Issues and Discussion Points

3.1 Trade Condition for NBBO

During the GExMC call on July 15, 2013, it was requested to add another trade condition to reflect the fact that a trade took place within the current National Best Bid and Offer (NBBO).

Decision: add another value to TradeCondition(277)

3.2 SettlPriceMethod

After the GTC call on Aug. 1, 2013, it was suggested that this new field should follow the established naming pattern and be renamed SettlPriceDeterminationMethod.

Decision: submitter accepted the suggestion.

4 Proposed Message Flow

No changes.

5 FIX Message Tables

This proposal does not add any new message types and only makes extensions to existing ones.

5.1 FIX Message MarketDataRequest(35=V)

To be completed at the time of the proposal – all information provided will be stored in the repository						
Message Name		MarketDataRequest				
Message Abbreviated Name (for FIXML)		MktDataReq				
Category		MarketData				
Action		New X Change				
Message Synopsis	volume, open A MarketData securities or f	allow the transmission of real-time quote, order, trade, trade interest, and/or other price information on a subscription basis. Request(35=V) is a general request for market data on specific prex quotes. The values in the fields provided within the request urther filter criteria for the result set.				
Message Elaboration	(no change)					
	To be finalized by FPL Technical Office					
(MsgType(tag 35) Enumeration	on	V				
Repository Component ID		29				

Тад	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
	Standard Header	Y				MsgType = V
262	MDReqID	Y		<u>CHANGE</u>		Must be unique, or the ID of previous Market Data Request to disable if SubscriptionRequestType(<u>263</u>) = $\underline{2}$ (Disable previous Snapshot + Updates Request-(<u>2</u>).

Taa	Field Name	Doa'd	ICR	Action	Mappings	FIX Spac Commonts
Тад	Field Name	Req'd	ICR	Action	Mappings	FIX Spec Comments
					and Usage Comments	
			-	<u></u>	comments	
263	SubscriptionRequest	Y		<u>CHANGE</u>		SubscriptionRequestType(<u>263)</u> indicates to the other party what type of
	Туре					response is expected. A snapshot
						request only asks for current
						information. A subscribe request asks
						for updates as the status changes. Unsubscribe will cancel any future
						update messages from the counter
						party.
Compon	ent Block	Ν		CHANGE		Insert here the set of Parties (firm
<parties></parties>	>					identification) fields defined in
						"Common Components of Application Messages"
264	MarketDepth	Y				
265	MDUpdateType	N				Required if
						SubscriptionRequestType(263) = $\underline{1}$
						<u>(</u> Snapshot + Updates (1).
266	AggregatedBook	N				
286	OpenCloseSettlFlag	Ν		CHANGE		Can be used to clarify a request if
						MDEntryType(<u>269)</u> = $\frac{4}{2}$ (Opening <u>Pprice(4)</u> , <u>5</u> (Closing <u>Pp</u> rice(5), or <u>6</u>
						(Settlement $\frac{P_p}{P_p}$ rice(6), or \underline{o}
546	Scope	Ν				Defines the scope(s) of the request
547	MDImplicitDelete	Ν		<u>CHANGE</u>		Can be used when MarketDepth(254)
						>= 2 and MDUpdateType(<u>265)</u> = $\underline{1}$
Compon	ent Block	Y		CHANGE		<u>(Incremental Refresh(+)</u>). Number of MDEntryType(269) fields
<mdreq< td=""><td></td><td>I</td><td></td><td></td><td></td><td>requested.</td></mdreq<>		I				requested.
	ent Block	N		ADD		Can be used to limit the result set to the
	SegmentScopeGrp>					specified markets or market segments.
	ent Block	Y				Number of symbols (instruments)
•	MDReqGrp>	1				requested.
	ent Block	N				Number of trading sessions for which
<trdgses< td=""><td></td><td></td><td></td><td></td><td></td><td>the request is valid.</td></trdgses<>						the request is valid.
815	ApplQueueAction	N				Action to take if application level
						queuing exists
812	ApplQueueMax	Ν				Maximum application queue depth that must be exceeded before queuing
						action is taken.
1070	MDQuoteType	N				
TBD244	FastMarketIndicator	N		NEW		
7						
	Standard Trailer	Y				
						· · · · · · · · · · · · · · · · · · ·

5.2 FIX Message MarketDataSnapshotFullRefresh(35=W)

To be completed at the time of the proposal – all information provided will be stored in the repository							
Message Name		MarketDataSnapshotFullRefresh					
Message Abbreviated Name (for FIXML)		MktDataFull					
Category		MarketData					
Action		New	X Change				
Message Synopsis	(no change)						
Message Elaboration	(no change)						
To be finalized by FPL Technical Office							
(MsgType(tag 35) Enumeration		W					
Repository Component ID		30					

Tag	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
	Standard Header	Y				MsgType = W
Compone	nt Block	N				
<applicati< td=""><td>ionSequenceControl></td><td></td><td></td><td></td><td></td><td></td></applicati<>	ionSequenceControl>					
911	TotNumReports	N				Total number or reports returned in response to a request.
<mark>963</mark>	MDReportID	N		CHAN GE		Unique indentifier <u>identifier</u> for Market Data Report
715	ClearingBusinessDate	N				
1021	MDBookType	N				Describes the type of book for which the feed is intended. Can be used when multiple feeds are provided over the same connection
1173	MDSubBookType	N				Can be used to define a subordinate book.
264	MarketDepth	N				Can be used to define the current depth of the book.

Тад	Field Name	Req'd	ICR	Action	Mappings and Usage Comments	FIX Spec Comments
1022	MDFeedType	N				Describes a class of service for a given data feed, ie Regular and Market Maker
1683	MDSubFeedType	Ν				
1187	RefreshIndicator	Ν				
75	TradeDate	N				Used to specify the trading date for which a set of market data applies
262	MDReqID	N		<u>CHAN</u> <u>GE</u>		Conditionally required if this message is in response to a Market-Data Request(<u>35=V)</u> .
1500	MDStreamID	N				
1301	MarketID	Ν				
1300	MarketSegmentID	Ν				
-	Component Block <instrument></instrument>					Insert here the set of "Instrument" (symbology) fields defined in "Common Components of Application Messages"
Compone <undinst< td=""><td></td><td>N</td><td></td><td></td><td></td><td>Number of underlyings</td></undinst<>		N				Number of underlyings
Compone		N				Required for multileg
<instrmtl< td=""><td></td><td></td><td></td><td></td><td></td><td>quotes</td></instrmtl<>						quotes
<mark>779</mark>	LastUpdateTime	N		ADD		
291	FinancialStatus	N				
292	CorporateAction	N				
451	NetChgPrevDay	Ν				
1682	MDSecurityTradingStatus	Ν				
1684	MDHaltReason	N				
Compone <mdfullc< td=""><td></td><td>Y</td><td></td><td></td><td></td><td>Number of entries following.</td></mdfullc<>		Y				Number of entries following.
813	ApplQueueDepth	N				Depth of application messages queued for transmission as of delivery of this message
814	ApplQueueResolution	N				Action taken to resolve application queuing
Compone <routing< td=""><td></td><td>N</td><td></td><td></td><td></td><td></td></routing<>		N				
	Standard Trailer	Y				

5.3 FIX Message SecurityMassStatus(35=CO)

To be completed at the time of the proposal – all information provided will be stored in the repository							
Message Name		SecurityMas	SecurityMassStatus				
Message Abbreviated Name (for FIXML)		SecMassStat					
Category		SecuritiesRe	eferenceData				
Action		New	X Change				
Message Synopsis	(no change)						
Message Elaboration	(no change)						
	To be finalized by FPL Technical Office						
(MsgType(tag 35) Enumeration		СО					
Repository Component ID		126					

Tag	Field Name	Req'	ICR	Actio	Mappings	FIX Spec Comments
		d		n	and Usage	
					Comments	
	Standard Header	Y				MsgType = CO
Component	Block	N				
<application< td=""><td>SequenceControl></td><td></td><td></td><td></td><td></td><td></td></application<>	SequenceControl>					
<mark>324</mark>	SecurityStatusReqID	N		<u>CHAN</u> GE		Required when mass status is in response to a <u>SecurityMassStatusRequest</u> <u>Security</u> Mass Status Request<u>(35=CN)</u> message.
1465	SecurityListID	N				Identifies all securities for a security list identifier.
1301	MarketID	Ν				Identifies all securities for a market.
1300	MarketSegmentID	N				Identifies all securities for a market segment.
<mark>75</mark>	TradeDate	N		ADD		Business day that the state change applies to.
336	TradingSessionID	N				Identifies all securities for a trading session.
625	TradingSessionSubID	N				Identifies all securities for a trading sub-session.
Component	Block	N				
<instrument< td=""><td>Scope></td><td></td><td></td><td></td><td></td><td></td></instrument<>	Scope>					

_		_				
Тад	Field Name	Req'	ICR	Actio	Mappings	FIX Spec Comments
		d		n	and Usage	
					Comments	
325	UnsolicitedIndicator	Ν				Set to "Y" if message is sent as a
						result of a subscription request not a
						snapshot request.
1679	SecurityMassTrading	Ν				
	Status					
TBD <u>2447</u>	FastMarketIndicator	N		<mark>NEW</mark>		
1680	SecurityMassTrading	Ν				
	Event					
1681	MassHaltReason	Ν				
1021	MDBookType	N				Used to relay changes in the book
	,,					type.
264	MarketDepth	Ν				Used to relay changes in Market
						Depth.
60	TransactTime	N				Time of state change for security
						list.
334	Adjustment	Ν				
Component	Component Block					
	- <secmassstatgrp></secmassstatgrp>					
	Standard Trailer	Y				

5.4 FIX Message SecurityStatus(35=f)

To be completed at the time of the proposal – all information provided will be stored in the repository							
Message Name		SecurityStatu	S				
Message Abbreviated Name (for FIXML)		SecStat					
Category		SecuritiesRef	erenceData				
Action		New	X Change				
Message Synopsis	(no change)						
Message Elaboration	(no change)						
	L Technical Office						
(MsgType(tag 35) Enumeratic	n	f					
Repository Component ID		39					

Tag	Field Name	Req' d	ICR	Action	Mappings and Usage	FIX Spec Comments
					Comments	
	Standard Header	Y				MsgType = f (lowercase)
Compo	onent Block	Ν				
<applie< td=""><td>cationSequenceCon</td><td></td><td></td><td></td><td></td><td></td></applie<>	cationSequenceCon					
trol>						
324	SecurityStatusRe qID	Ν				
Compo	onent Block	Y				Insert here the set of "Instrument"
<instru< td=""><td>iment></td><td></td><td></td><td></td><td></td><td>(symbology) fields defined in "Common</td></instru<>	iment>					(symbology) fields defined in "Common
Compo	onent Block	N				Components of Application Messages" Insert here the set of "InstrumentExtension"
-	imentExtension>	IN				fields defined in "Common Components of Application Messages"
Compo	onent Block	N				Number of underlyings
-	nstrmtGrp>					
	onent Block	N				Required for multileg quotes
	ntLegGrp>					
15	Currency	N				
1301	MarketID	Ν				
1300	MarketSegmentI	Ν				
	D					
<mark>75</mark>	TradeDate	N		ADD		Business day that the state change applies to.
336	TradingSessionID	Y				
625	TradingSessionSu bID	Ν				
325	UnsolicitedIndica	N				Set to 'Y' if message is sent as a result of a
	tor					subscription request not a snapshot request
326	SecurityTradingSt	N				Identifies the trading status applicable to the
	atus					transaction.
1655	MarketMakerActi	Ν				
	vity					
<mark>TBD2</mark> 447	Fast Market Indica tor	N		<mark>NEW</mark>		
1174	SecurityTradingE vent	N				Identifies an event related to the trading status
291	FinancialStatus	N				
292	CorporateAction	N				
327	HaltReason	N				Denotes the reason for the Opening Delay or
527						Trading Halt.
328	InViewOfCommo	Ν				
	n					
329	DueToRelated	Ν				
1021	MDBookType	Ν				Used to relay changes in the book type
264	MarketDepth	Ν				Used to relay changes in Market Depth.

Tag	Field Name	Req' d	ICR	Action	Mappings and Usage	FIX Spec Comments
					Comments	
330	BuyVolume	N				
331	SellVolume	N				
332	HighPx	N				
333	LowPx	N				
31	LastPx	N				Represents the last price for that security either on a Consolidated or an individual participant basis at the time it is disseminated.
<mark>TBD2</mark> 451	SettlPriceDetermi nationMethod	N		<mark>NEW</mark>		
60	TransactTime	Ν				Trade Dissemination Time
334	Adjustment	Ν				
1025	FirstPx	N				Represents the price of the first fill of the trading session.
<mark>TBD2</mark> 448	LinkageHandlingI ndica tor	N		<mark>NEW</mark>		
58	Text	Ν				Comment, instructions, or other identifying information.
354	EncodedTextLen	N		<u>CHAN</u> <u>GE</u>		<u>Must be set if EncodedText(355)</u> field is <u>specified and must immediately precede</u> <u>it.Must be set if EncodedText field is specified</u> and must immediately precede it.
355	EncodedText	N		CHAN GE		Encoded (non-ASCII characters) representation of the Text(58) field in the encoded format specified via the MessageEncoding(347) field.Encoded (non ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
	Standard Trailer	Y				

5.5 FIX Message TradingSessionStatus(35=h)

To be completed at the time of the proposal – all information provided will be stored in the repository						
Message Name		TradingSessionStatus				
Message Abbreviated Name (for FIXML)		TrdgSesSta	t			
Category		MarketStructureReferenceData				
Action		New	X Change			
Message Synopsis	(no change)					

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Message Elaboration	(no change)							
	To be finalized by FPL Technical Office							
(MsgType(tag 35) Enumeration		h						
Repository Component ID		41						

	Tag	Field Name		Req'd	ICR	Action	Mappings and Usage Comments	
		Standard Hea	der	Y				MsgType = h (lowercase)
	Componer <applicati< td=""><td>nt Block onSequenceCol</td><td>ntrol></td><td>N</td><td></td><td></td><td></td><td></td></applicati<>	nt Block onSequenceCol	ntrol>	N				
	335	TradSesReqID		N		CHANGE		Conditionally required Provided for a responsewhen responding to a specific Trading Session-Status Request-(35=g) message (snapshot).
1301	MarketID		N		<mark>CHAN</mark> E	G		et for which <mark>∓t</mark> rading ion applies
1300	MarketSe	gmentID	N		<mark>CHAN</mark> E	G		et Segment for which ing <mark>Ss</mark> ession applies
<mark>75</mark>	TradeDate		N		ADD			ess day for which ng session applies <u>to.</u>
336	TradingSe	ssionID	Y		<mark>CHAN</mark> E	G		ifier for <mark>∓t</mark> rading
625	TradingSe	ssionSubID	N					
338	TradSesMethod		N		<mark>CHAN</mark> E	G	<mark>Meth</mark>	od of trading:
339	TradSesMode		N		<mark>CHAN</mark> E	G	<mark>Tradi</mark>	n <mark>g Session Mode</mark>
325	UnsolicitedIndicator		N				unsol	'Y' if message is sent icited as a result of a ous subscription est.
340	TradSesSt	atus	Y		<mark>CHAN</mark> E	G		of the trading session

	Tag	Field Name		Req'd	ICR	Action	and	pings Usage ments	FIX Spec Comments
1368	TradSesEv	vent	N				·	to the	ies an event related trading status of a session
TBD <u>244</u> 7	<mark>FastMark</mark>	etIndicator	N		<mark>NEW</mark>				es if trading session st market.
567	TradSesSt n	atusRejReaso	Ν		CHAN E	G			th sStatus <u>(340)</u> = <u>"6</u> est Rejected <u>)"</u>
341	TradSesSt	artTime	Ν						g time of the trading
342	TradSesO	penTime	Ν					trading	f the opening of the session
343		reCloseTime	Ν					the tra	f the pre-close of ding session
344	TradSesC		Ν					session	
345	TradSesEr		Ν					sessior	
1785	TradSesCo	ontrol	Ν					trading	es how control of g session and sion transitions are med
387	TotalVolu	meTraded	Ν						
<mark>60</mark>	TransactT	<mark>ïme</mark>	N		ADD				
58	Text		N						
354	EncodedT	extLen	N		<mark>CHAN</mark> E	G		Encode <u>field</u> is	e set if edText <mark>(355) field specified and must liately precede it.</mark>
355	EncodedT	ext	Ν		CHAN E	G		charact of <mark>the</mark> encode via <mark>the</mark> Messag <mark>field</mark> .	geEncoding <mark>(347)</mark>
Compone <instrume< td=""><td></td><td></td><td>Ν</td><td></td><td><mark>CHAN</mark> E</td><td>G</td><td></td><td>only ap subset Use Se messag</td><td>status information oplies <u>only</u> to a of all instruments. curityStatus(35=f) ge instead for <u>status</u> ngle instrument.</td></instrume<>			Ν		<mark>CHAN</mark> E	G		only ap subset Use Se messag	status information oplies <u>only</u> to a of all instruments. curityStatus(35=f) ge instead for <u>status</u> ngle instrument.

6 FIX Component Blocks

This proposal does not add any new component blocks and only makes extensions to existing ones.

6.1 Component MDFullGrp

To be completed at the time of the proposal – all information provided will be included in the repository							
Component Name		MDFullGrp					
Component Abbreviated FIXML)	l Name (for	Full					
Component Type		_X Block Repeating Block					
Category		MarketData					
Action		New X Change					
Component Synopsis	[enter the con	nponent synopsis here]					
Component Elaboration	[enter the con	nponent elaboration here]					
	То	be finalized by FPL Technical Office					
Repository Component ID		2031					

	Component FIXML Abbreviation: < <i>Full</i> >								
Та	Field N	ame	Req'	IC	Action	Mappings	Comments		
g			d	R		and Usage			
						Comments			
26	NoMD	Entries	Y				Number of entries following.		
8									
\rightarrow	269	MDEntryType	Y				Must be the first field in this		
	205	mbenny rype	<u> </u>				repeating group.		
\rightarrow	278	MDEntryID	N		<u>CHANGE</u>		Conditionally required when maintaining an order-depth		
							book , that is, when		
							(AggregatedBook-(266) is "N").		
							aAllows subsequent		
							Incremental changes to be		
							applied using MDEntryID(278).		

ditionally required if EntryType <u>(269)</u> is not <u>A</u>
palance (A)), <u>B (</u> Trade
ume (B), or <u>C (</u> Open
erest (C)<u>.</u>;
ditionally required when
EntryType <u>(269)</u> = <u>Q</u>
tion clearing
e)."auction clearing price"
rt here the set of
Data (yield-related) fields hed in "Common
ponents of Application
sages
rt here the set of
adOrBenchmarkCurveDat
xed Income spread or
chmark curve) fields
ned in Common
ponents of Application
sages
d to support market
hanism type; limit order,
ket order, committed
cipal order be used to specify the
ency of the quoted price.
uired for NDFs to specify
settlement currency (fixing
ency).
ditionally required when
JpdateAction(279) = 0
w <mark>(0</mark>) and
EntryType <u>(269)</u> = <u>0 (</u> Bid (0), ffor(1) - 2 (Trade(2)) - B
ffer (1), <u>2 (</u> Trade (2)) , <u>B</u>
de <mark>∀⊻</mark> olume (B), or <u>C (</u> Open erest (C).
ditionally required when
EntryType = "auction
ring price"
be used to specify the lot
of the quoted size in
er depth books.

\rightarrow	326	SecurityTradingStat	N		
	520	us			
\rightarrow	327	HaltReason	N		
\rightarrow	TBD 2 447	FastMarketIndicator	N	NEW	
\rightarrow	276	QuoteCondition	N		Space-delimited list of conditions describing a quote.
\rightarrow	277	TradeCondition	N		Space-delimited list of conditions describing a trade
→	→ Component Block <tradepriceconditiongrp></tradepriceconditiongrp>		N		Insert here the set of SpreadOrBenchmarkCurveDat a (Fixed Income spread or benchmark curve) fields defined in Common Components of Application Messages
\rightarrow	286	OpenCloseSettlFlag	N	<u>CHANGE</u>	Used if MDEntryType(<u>269</u>) = <u>4</u> (Opening Price(<u>4</u>), <u>5</u> (Closing Price(<u>5</u>), or <u>6</u> (Settlement Price(6).
\rightarrow	59	TimeInForce	N		For optional use when this Bid or Offer represents an order
→	432	ExpireDate	N	<u>CHANGE</u>	For optional use when this Bid or Offer represents an order. ExpireDate(<u>432</u>) and ExpireTime(<u>126</u>) cannot both be specified in one Market Data Entry.
→	126	ExpireTime	N	CHANGE	For optional use when this Bid or Offer represents an order. ExpireDate(<u>432</u>) and ExpireTime(<u>126</u>) cannot both be specified in one Market Data Entry.
\rightarrow	1629	ExposureDuration	N		Conditionally required when TimeInForce(59) = <u>A</u> 10 (Good for Time)
\rightarrow	1916	ExposureDurationUn it	N		
\rightarrow	110	MinQty	N		For optional use when this Bid or Offer represents an order
\rightarrow	18	ExecInst	N		Can contain multiple instructions, space delimited.
\rightarrow	287	SellerDays	Ν		
\rightarrow	37	OrderID	N		For optional use when this Bid, Offer, or Trade represents an order
\rightarrow	198	SecondaryOrderID	N		For optional use to support Hit/Take (selecting a specific order from the feed) without disclosing a private order id.
\rightarrow	299	QuoteEntryID	N		For optional use when this Bid, Offer, or Trade represents a quote

\rightarrow	288	MDEntryBuyer	Ν		For optional use in reporting Trades
\rightarrow	289	MDEntrySeller	N		For optional use in reporting Trades
<mark>→</mark>	<mark>tbd2</mark> 449	<u>NumberOfBuyOrder</u> s	N	NEW	For optional use in reporting trades.
<u></u>	tbd2 450	NumberOfSellOrders	N	NEW	For optional use in reporting trades.
\rightarrow	346	NumberOfOrders	N		In an Aggregated Book, used to show how many individual orders make up an MDEntry
\rightarrow	290	MDEntryPositionNo	N		Display position of a bid or offer, numbered from most competitive to least competitive, per market side, beginning with 1
\rightarrow	546	Scope	Ν		
\rightarrow	811	PriceDelta	N		
\rightarrow	828	TrdType	N	CHANGE	Specifies trade type when a trade is being reported. For optional use in reporting trades. Must be used when MDEntryType(269) – Trade(2).
\rightarrow	829	TrdSubType	Ν	CHANGE	For optional use in reporting trades.
\rightarrow	574	MatchType	N	CHANGE	For optional use in reporting trades.
\rightarrow	1115	OrderCategory	N		
\rightarrow	1390	TradePublishIndicat or	N	CHANGE	For optional use in reporting trades.
→			N	ADD	For optional use when reporting tradesLists of trades related to the current market data entry, e.g. leg trades of a multi-leg trade. For optional use in reporting trades.
\rightarrow	58	Text	N		Text to describe the Market Data Entry. Part of repeating group.
→ 	354	EncodedTextLen	N	CHANGE	Must be set if EncodedText(355) field is specified and must immediately precede it. Must be set if EncodedText field is specified and must immediately precede it.

	0				Erect 1/ ACOU
→	355	EncodedText	N	<u>CHANGE</u>	Encoded (non-ASCII characters) representation of the Text(58) field in the encoded format specified via the MessageEncoding(347) field.Encoded (non ASCII characters) representation of the Text field in the encoded
					format specified via the MessageEncoding field.
→	1023	MDPriceLevel	N		Display position of a bid or offer, numbered from most competitive to least competitive, per market side, beginning with 1
\rightarrow	528	OrderCapacity	N	<u>CHANGE</u>	Designates the capacity of the firm placing the order
\rightarrow	1024	MDOriginType	N		
→ 	332	HighPx	N		Used to report high price in association with trade, bid or ask rather than a separate entity
→	333	LowPx	N	<u>CHANGE</u>	Used to report low price in association with trade, bid or ask rather than a separate <u>entittyentity.</u>
\rightarrow	1025	FirstPx	N		Indicates the first price of a trading session; can be a bid, ask, or trade price.
\rightarrow	31	LastPx	N		Indicates the last price of a trading session; can be a bid, ask, or trade price.
\rightarrow	1592	DiscountFactor	N		
→	1020	TradeVolume	N		Used to report trade volume in association with trade, bid or ask rather than a separate entity
→	TBD 2 451	SettlPriceDetermina tionMethod	N	NEW	
\rightarrow	63	SettlType	N		
→ 	64	SettlDate	N		Indicates date on which instrument will settle. For NDFs required for specifying the "value date".
\rightarrow	1070	MDQuoteType	N		
\rightarrow	83	RptSeq	N		Used to identify the sequence number within a feed type
÷	1048	DealingCapacity	N	<u>CHANGE</u>	Identifies role of dealer; A(Agent), P(Principal), R(RisklessPrincipal)
\rightarrow	1026	MDEntrySpotRate	N		
\rightarrow	1027	MDEntryForwardPoi nts	N		

\rightarrow	→ Component Block <parties></parties>		Ν				
<u>→</u>	<u>tbd2</u> 445	<u>AggressorTime</u>	2		<mark>NEW</mark>		
<u>→</u>	tbd2 446	<u>AggressorSide</u>	N		<u>NEW</u>		

6.2 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 Name (for FIXML)		Inc			
Component Type		_X Block Repeating Block			
Category		MarketData			
Action		New X Change			
Component Synopsis	[enter the component synopsis here]				
Component Elaboration	[enter the component elaboration here]				
	To be finalized by FPL Technical Office				
Repository Component ID		2032			

	Component FIXML Abbreviation:						
Тад	g Field Name		Req' d	IC R	Action	Mappings and Usage Comments	Comments
268	NoMDEntries		Y				Number of entries following.
\rightarrow	279	MDUpdateAction	Y				Must be first field in this repeating group.
\rightarrow	1173	MDSubBook-Type	N				Can be used to define a subordinate book.
\rightarrow	264	MarketDepth	N				Can be used to define the current depth of the book.

\rightarrow	2652	MDCatauTupa	N		Conditionally required if
~	265 2	MDEntryType	IN	CHANGE	MDUpdateAction(279) = 0
	<u>69</u>				$(New(\Theta)).$
					Cannot be changed.
\rightarrow	278	MDEntrulD	N	CHANGE	If specified, must be unique
~	278	MDEntryID	IN	CHANGE	among currently active entries
					if MDUpdateAction(279) = 0
					(New (0); ₇
					must be the same as a
					previous MDEntryID(278) if
					MDUpdateAction(279) = 2
					(Delete (2); , and must be the same as a
					previous MDEntryID(278) if
					MDUpdateAction(279) = $\underline{1}$
					<u>(</u> Change (1) and MDEntryRefID <u>(280)</u> is not
					specified _{i₂} or
					must be unique among
					currently active entries if
					MDUpdateAction(279) = 1
					$\frac{1}{(Change(1))} = \frac{1}{1}$
					MDEntryRefID(280) is
					specified
\rightarrow	200	MDEntryDafiD	N		If MDUpdateAction(279) = 0
~	280	MDEntryRefID	IN	CHANGE	(New (0), for the first <u>Mm</u> arket
					$\frac{D_d}{D_d}$ at a $\frac{E_d}{E_d}$ ntry in a message,
					either this field or a <u>security</u>
					Symbol must be specified.
					If MDUpdateAction(279) = $\underline{1}$
					(Change (1), this must refer to
					a previous MDEntryID(278).
\rightarrow	1500	MDStreamID	N		
\rightarrow		onent Block	N		Insert here the set of
			IN		"Instrument" (symbology)
	<instru< th=""><th>ument></th><th></th><th></th><th>fields defined in "Common</th></instru<>	ument>			fields defined in "Common
					Components of Application
					Messages"
\rightarrow	Compo	onent Block	N		Insert here the set of
Í	-				SpreadOrBenchmarkCurveDat
	Condi	nstrmtGrp>			a (Fixed Income spread or
					benchmark curve) fields
					defined in Common
					Components of Application
					Messages
\rightarrow	Compo	onent Block	N		
	-	ntLegGrp>			
\rightarrow	291	FinancialStatus	N		
\rightarrow					
	292	CorporateAction	N		

→ 270 MDEntryPx N CHANGE Conditionally required MDUpdateAction[279] [New(0) and MDEntryType[269] is [Imbalance(A)], B_[Transport of Cope of the set of MDEntryType[269] is [Imbalance(A)], B_[Transport of Cope of the set of MDEntryType[269] = 4 (Auction clearing price of MDEntryType[269] = 4 (Auction clearin)) = 0 not <u>A</u> ade en d when "a <u>0</u> e). ed) fields
→ 423 PriceType N → Component Block <yielddata> N CHANGE → Component Block <yielddata> N CHANGE → Component Block N CHANGE → Component Block N CHANGE → Component Block N CHANGE</yielddata></yielddata>	ed) fields
→ Component Block N CHANGE Insert here the set of YieldData	ed) fields
CurveData>	CurveDat a d or I ds cation
→ 40 OrdType N Used to support mark mechanism type; limit market order, commit principal order	t order,
→ 15 Currency N Can be used to specify currency of the quote	ed price.
→ 120 SettlCurrency N Required for NDFs to the settlement currency).	
→ Component Block N <ratesource> N</ratesource>	
→ 271 MDEntrySize N CHANGE Conditionally required MDUpdateAction(279) [New(0) and MDEntryType(269) = 1] 1 (Offer(4), 2.(Trade(2)) 1.(Offer(4), 2.(Trade(2))) 1.(Offer(4), 2.(Trade(2))) 1 (Dfer(4), 2.(Trade(2))) 1.(Offer(4)), 2.(Trade(2))) 1.(Offer(4)), 2.(Trade(2)) 1 (Dfer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1 (Dfer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1 (Dfer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1.(Offer(4)), 2.(Trade(2)) 1 (Dfer(4)), 2.(Trade(2)) (Trade(4)) 1.(Offer(4)), 2.(Trade(4)) 1 (Dfer(4)), 2.(Trade(4)) (Trade(4)) 1.(Offer(4)), 2.(Trade(4)) 1 (Dfer(4)), 2.(Trade(4)) (Dfer(4)), 2.(Trade(4)) 1.(Dfer(4)) 1 (Dfer(4)), 2.(Trade(4)) (Dfer(4))	<u>9)</u> = <u>0</u> <u>0 (</u> Bid (0), <u>2</u>)), <u>B</u> r <u>C (</u> Open d when
→ Component Block N <secsizesgrp> N</secsizesgrp>	
→ 1093 LotType N Can be used to specify type of the quoted size order depth books.	
\rightarrow 272 MDEntryDate N	
\rightarrow 273 MDEntryTime N	
\rightarrow 274 TickDirection N	
→ 336 TradingSession-ID N	Г

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\rightarrow	625	TradingSession SubID	N		
\rightarrow	326	SecurityTrading Status	N		
\rightarrow	327	HaltReason	N		
\rightarrow	TBD<u>2</u> 447	FastMarketIndicat or	N	NEW	
\rightarrow	276	QuoteCondition	N		Space-delimited list of conditions describing a quote.
\rightarrow	277	TradeCondition	N		Space-delimited list of conditions describing a trade
\rightarrow		onent Block ePriceConditionGrp>	N		
\rightarrow	828	TrdType	N	CHANGE	For optional use in reporting trades.
\rightarrow	829	TrdSubType	N	CHANGE	For optional use in reporting trades.
\rightarrow	574	MatchType	N	CHANGE	For optional use in reporting trades.
\rightarrow	111 5	OrderCategory	N		
\rightarrow	139 0	TradePublishIndi cator	N	CHANGE	For optional use in reporting trades.
\rightarrow		onent Block edTradeGrp>	N	ADD	For optional use when reporting trades. Lists of trades related to the current market data entry, e.g. leg trades of a multi-leg trade. For optional use in reporting trades
\rightarrow	286	OpenCloseSettlFla-g	N	CHANGE	Used if MDEntryType(<u>269</u>) = $4\frac{1}{2}$ Opening Pprice(4), <u>5</u> (Closing Pprice(5), or <u>6</u> (Settlement Pprice(6).
\rightarrow	59	TimeInForce	N		For optional use when this Bid or Offer represents an order
→	432	ExpireDate	N	CHANGE	For optional use when this Bid or Offer represents an order. ExpireDate(<u>432</u>) and ExpireTime(<u>126</u>) cannot both be specified in one Market Data Entry.
→ 	126	ExpireTime	N	CHANGE	For optional use when this Bid or Offer represents an order. ExpireDate(<u>432</u>) and ExpireTime(<u>126</u>) cannot both be specified in one Market Data Entry.

\rightarrow	162	ExposureDuration	N	CHANGE	Conditionally required when
	9				$\frac{\text{TimeInForce}(59) = 10 \text{ (Good}}{10 \text{ Good}}$
					for Time).Conditionally
					required when
					TimeInForce(59)=10 (Good for
	101				Time)
\rightarrow	191	ExposureDuration	N		
	6	Unit			
\rightarrow	110	MinQty	N		For optional use when this Bid
					or Offer represents an order
\rightarrow	18	ExecInst	N		Can contain multiple
					instructions, space delimited.
\rightarrow	287	SellerDays	N		
\rightarrow	37	OrderID	N		For optional use when this Bid,
					Offer, or Trade represents an
					order
\rightarrow	198	SecondaryOrderID	N		For optional use to support
					Hit/Take (selecting a specific
					order from the feed) without
	200	Overte Entry 1D	NI		disclosing a private order id.
\rightarrow	299	QuoteEntryID	N		For optional use when this Bid, Offer, or Trade represents a
					quote
\rightarrow	100	TradeID	NI		For optional use in reporting
~	100	ITadeiD	N		Trades
	3				
\rightarrow	288	MDEntryBuyer	N		For optional use in reporting
					Trades
\rightarrow	289	MDEntrySeller	N		For optional use in reporting
	TOO			NIT NA	Trades
\rightarrow	TBD	NumberOfBuyOrd	N	NEW	For optional use in reporting trades.
	<u>244</u>	<mark>ers</mark>			trades.
	<u>9</u>				
\rightarrow	TBD	NumberOfSellOrd	N	NEW	For optional use in reporting
	<mark>245</mark>	ers	_		trades.
	0	<u></u>			
	246	Nume have of Our days	NI		In an Aggregated Rook, used
\rightarrow	346	NumberOfOrders	N		In an Aggregated Book, used to show how many individual
					orders make up an MDEntry
\rightarrow	290	MDEntryPosition-No	N		Display position of a bid or
	230	WIDENCI YR USILION-INU	IN		offer, numbered from most
					competitive to least
					competitive, per market side,
					beginning with 1
\rightarrow	546	Scope	N		
\rightarrow	811	, PriceDelta	N		
\rightarrow	451	NetChgPrevDay	N		
\rightarrow					Text to describe the Market
7	58	Text	N		Data Entry. Part of repeating

	-	Г_ · ·_ Т			<u>т</u>	
\rightarrow	354	EncodedTextLen	N	<u>CHANGE</u>		Must be set if
						EncodedText(355) field is specified and must
						immediately precede it. Must
						be set if EncodedText field is
						specified and must
						immediately precede it.
\rightarrow	355	EncodedText	N	CHANGE		Encoded (non-ASCII
						characters) representation of
						<mark>the</mark> Text <mark>(58) field in the</mark>
						encoded format specified via
						<u>the MessageEncoding<mark>(347)</mark> field.Encoded (non ASCII</u>
						characters) representation of
						the Text field in the encoded
						format specified via the
						MessageEncoding field.
\rightarrow	102	MDPriceLevel	N			-
	3					
\rightarrow	528	OrderCapacity	N			
\rightarrow	102	MDOriginType	N			
	4					
\rightarrow	332	HighPx				
\rightarrow	333	LowPx	N			
\rightarrow	102	FirstPx	N			Indicates the first price of a
	5					trading session; can be a bid,
						ask, or a trade price.
\rightarrow	31	LastPx	N			Indicates the last price of a
						trading session; can be a bid, ask, or a trade price.
\rightarrow	159	DiscountFactor	N			
	2	Discounti actor				
\rightarrow		TradeVolume	N			
7	102	Tradevolume	N			
	0					
→	TBD	<mark>SettlPriceDetermina</mark>	N	NEW		
	<u>245</u>	<mark>tionMethod</mark>				
	<u>1</u>					
\rightarrow	63	SettlType	N			
\rightarrow	64	SettlDate	N			Indicates date on which
						instrument will settle.
						For NDFs required for specifying the "value date".
\rightarrow	483	TransBkdTime	N		+ +	For optional use in reporting
	-05	T UISDRUTHINE				Trades. Used to specify the
						time of trade agreement for
						privately negotiated trades.
\rightarrow	60	TransactTime	N			For optional use in reporting
						Trades. Used to specify the
<u> </u>						time of matching.

\rightarrow	TBD <u>244</u> <u>5</u>	AggressorTime	N	NEW	Entry time of the incoming order that triggered the trade .	
<u>→</u>	TBD 244 <u>6</u>	AggressorSide	N	NEW		
\rightarrow	107 0	MDQuoteType	N			
\rightarrow	83	RptSeq	N		Allows sequence number to be specified within a feed type	
\rightarrow	104 8	DealingCapacity	N	CHANGE	Identifies role of dealer; <u>A(Agent), P(Principal),</u> <u>R(RisklessPrincipal).</u>	
\rightarrow	102 6	MDEntrySpotRate	N			
\rightarrow	102 7	MDEntryForward Points	N			
\rightarrow		oonent Block sIndGrp>	N			
\rightarrow	Comp <part< td=""><td>oonent Block ies></td><td>N</td><td></td><td></td></part<>	oonent Block ies>	N			

6.3 Component MarketSegmentScopeGrp

To be completed at the time of the proposal – all information provided will be included in the repository				
Component Name		MarketSegmentScopeGrp		
Component Abbreviated Name (for FIXML)		MktSegScope		
Component Type		X Block Repeating Block		
Category		Common		
Action		New X Change		
Component Synopsis	the componer	Ceonveys a list of markets and, optionally, their market segments. Note that the component MarketSegmentGrp exists, but is not useful for this purpose, as it conveys additional information not appropriate in this context.		
Component Elaboration	[enter the component elaboration here]			
To be finalized by FPL Technical Office				

Repository Component ID

<u>2198</u>

7 Category Changes

To be completed at the time of the proposal – all information provided is stored in the repository				
Category Name		[enter the category name here]		
Section		PreTrade		
		Trade		
		PostTrade		
		Infrastructure		
Category Synopsis	[enter the category synopsis here]			
Category Elaboration	[enter the category elaboration here]			
To be finalized by FPL Technical Office				
Category Filename				

Appendix A - Data Dictionary

[HERE] - check all entries are properly added to msg/components

Тад	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
TBD <u>24</u> 45	AggressorTime	<mark>NEW</mark>	<mark>UTCTime</mark> stamp	Timestamp of aggressive order or quote resulting in match event.	<mark>AgrsrTm</mark>	Add to components <mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
TBD <u>24</u> 46	AggressorSide	NEW	<u>c</u> Char	Side of aggressive order or quote resulting in match event.	AgrsrSide	Add to components <mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
TBD <u>24</u> 47	FastMarketIndicator	NEW	Boolean	[Uses enums from Side(54)] Indicates if the instrument is in "fast market" state. [Elaboration: A "fast market" is a state in which market rules are applied to instrument(s) or entire trading session when market events causes significant price movements due to public information.]	FastMktInd	Add to messages MarketDataRequest, SecurityMassStatus, SecurityStatus, TradingSessionStatus, Add to components <mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
<mark>TBD<u>24</u> 48</mark>	LinkageHandlingIndic ator	NEW	<mark>Boolean</mark>	Indicate whether linkage handling is in effect for an instrument or not.	LnkgHandlInd	Add to message <mark>SecurityStatus</mark>
TBD <u>24</u> 49	NumberOfBuyOrders	<mark>NEW</mark>	<mark>int</mark>	Number of buy orders involved in a trade.	NumOfBuyOrds	Add to components <mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
TBD <u>24</u> 50	NumberOfSellOrders	<mark>NEW</mark>	<mark>int</mark>	Number of sell orders involved in a trade.	NumOfSellOrds	Add to components <mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
TBD<u>24</u> <u>51</u>	SettlPriceDeterminati onMethod	NEW	<mark>i॒łnt</mark>	Calculation method used to determine settlement price.	<mark>SettlPxDtrmnM</mark> eth	Add to message SecuritStatus Add to components

Tag	FieldName	Action	Datatype	Description	FIXML	Add to / Deprecate from
5					Abbreviation	Message type or Component
						block
				Valid Values:		<mdincgrp>, <mdfullgrp></mdfullgrp></mdincgrp>
				<mark>0 = Unknown</mark>		
				(Symbolic name: [Unknown])		
				<mark>1 = Last trade price</mark>		
				(Symbolic name: [LastTradePrice])		
				<mark>2 = Last bid price</mark>		
				(Symbolic name: [LastBidPrice])		
				<mark>3 = Last offer price</mark>		
				(Symbolic name: [LastOfferPrice])		
				<mark>4 = Mid price</mark>		
				[Elaboration] Average <u>The price</u> at the		
				mid-point between last bid and last offer		
				price <u>.</u>		
				(Symbolic name: [MidPrice])		
				5 = Average of last trade prices		
				[Elaboration] <u>The Aa</u> verage price across <u>a</u>		
				bi-laterally agreed number of trades, e.g.		
				last five trades <u>.</u>		
				<pre>(Symbolic name: [AverageLastTradePrice])</pre>		
				<mark>6 = Average of last trade period</mark>		
				[Elaboration] Average price across bi-		
				laterally agreed time period, e.g. last		
				<mark>minute of trading</mark>		
				<u>(Symbolic name:</u>		
				[AverageLastTradePeriod])		
				<mark>7 = Underlying price</mark>		
				[Elaboration] Based on price of underlying		
				<mark>instrument</mark>		

	Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
					<pre>(Symbolic name: [UnderlyingPrice]) 8 = Calculated_price [Elaboration]Other calculation method, e.g. theoretical price (Symbolic name: [CalculatedPrice]) 9 = Manual_price [Elaboration]Manually entered price (Symbolic name: [ManualPrice]) Values "100" and above are reserved for bilaterally agreed upon user defined enumerations.</pre>		
	60	TransactTime	ADD	UTCTime stamp	Timestamp when the business transaction represented by the message occurred.	TxnTm	Add to message TradingSessionStatus
	75	TradeDate	ADD <mark>CHANGE</mark>	LocalMkt Date	Indicates date of trading day-trade referenced in this message in YYYYMMDD format. Absence of this field indicates current day (expressed in local time at place of trade).	TrdDt	Add to messages TradingSessionStatus SecurityStatus SecurityMassStatus

Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
269	MDEntryType	CHANGE	Char	Type of Mmarket Ddata entry. Valid Values: 0=Bid 1=Offer 2=Trade 3=Index Value 4=Opening Price 5=Closing Price TBD(provisionally assigned value "e") e=Previous Eclosing Pprice (Symbolic name: [Previous-ClosingPrice])	Тур	
277	TradeCondition	CHANGE	MultipleS tringValu e	Space-delimited list of conditions describing a trade Valid Values: A = Cash (only) Market B = Average Price Trade C = Cash Trade (same day clearing) 3 = Multi Asset Class Multileg Trade TBD(<i>provisionally assigned value "AU"</i>) AU = Trade through exempt [Elaboration] Trade ignored prices on away markets. (Symbolic name: [TradeThroughExempt]]	TrdCond	Correction of typo in value 3 will lead to change of symbolic name which also affects FIXwiki.

Тад	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
				TBD(provisionally assigned value "AW") AW= Last auction price [Elaboration] Trade represents outcome of last auction (Symbolic name: [LastAuctionPrice])		
				TBD(<i>provisionally assigned value "AX")<u>AX</u> = High price [Elaboration] Trade establishes new high price for the session [Symbolic name: [HighPrice]]</i>		
				TBD(<i>provisionally assigned value "AY")<u>AY</u> = Low price [Elaboration] Trade establishes new low price for the session [Symbolic name: [LowPrice]]</i>		
				TBD(<i>provisionally assigned value "AZ")<u>AZ</u> = Systematic internalizer [Elaboration] Trade conducted by systematic internalizer (Symbolic name: [SystematicInternalizer])</i>		
				TBD(<i>provisionally assigned value "BA")</i> =<u>BA</u> Away market [Elaboration] Trade conducted on away		

Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
				market (Symbolic name: [AwayMarket])		
				TBD(provisionally assigned value "BB") <u>BB</u> = Mid_point price [Elaboration] Trade represents current midpoint price		
				(Symbolic name: [MidpointPrice]) TBD(provisionally assigned value "BC")BC		
				= Traded before issue date [Elaboration] Trade conducted during subscription phase of new issue (Symbolic name:		
				[TradedBeforeIssueDate]) TBD(provisionally assigned value "BD")		
				BD= Previous closing price [Elaboration] Trade represents closing price of previous business day		
				(Symbolic name: [PreviousClosingPrice]) TBD(provisionally assigned value "BE")BE = National Best Bid and Offer		
				[Elaboration] Trade price within National Best Bid and Offer (NBBO) (Symbolic name: [NationalBestBidOffer])		

	Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
	336	TradingSessionID	CHANGE	String	Identifier for <mark>a ∓t</mark> rading <mark>Ss</mark> ession <mark>.</mark>	SesID	
					A trading session spans an extended period of time that can also be expressed informally in terms of the trading day. Usage is determined by market or counterparties.		
					To specify good for session where session spans more than one calendar day, use TimeInForce = <u>0 (</u> Day) in conjunction with TradingSessionID <u>(336)</u> .		
					Bilaterally agreed values of data type "String" that start with a character can be used for backward compatibility.		
					Valid Values:		
					1 = Day		
					2 = HalfDay 3 = Morning		
					4 = Afternoon		
					5 = Evening		
, I					6 = After-hours		
					TBD(<i>provisionally assigned value "7"</i>)<u>7</u> = Holiday		
					(Symbolic name: [Holiday])		

Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
779	LastUpdateTime	ADD	UTCTime stamp	Timestamp of last update to data item (or creation if no updates made since creation).	LastUpdateTm	Add to component MarketDataSnapshotFullRefresh
1174	SecurityTradingEvent	CHANGE	Int	Identifies an event related to a SecurityTradingStatus(326). An event occurs and is gone, it is not a state that applies for a period of time. Valid Values: 1 = Order imbalance, auction is extended 2 = Trading resumes (after Halt) 3 = Price Volatility Interruption 4 = Change of Trading Session 5 = Change of Trading Subsession 6 = Change of Security Trading Status 7 = Change of Book Type 8 = Change of Market Depth TBD(provisionally assigned value "9")9 = Corporate action [Symbolic name: [CorporateAction]]	SecTrdEvnt	

	Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component
							block
	1178	MDSecSizeType	<mark>CHANGE</mark>	Int	Specifies the type of secondary size.	MDSecSizeType	
					Valid Values:		
					1 = Customer		
					[Elaboration] Quantity of retail investors.		
					TBD(provisionally assigned value "2")2 =		
					Customer professional		
i					[Elaboration] Quantity of high-volume		
					investors acting similar to broker-dealers.		
ļ					(Symbolic name: [CustomerProfessional])		
					TBD(provisionally assigned value "3") <u>3</u> =		
					<mark>Do not trade through</mark>		
,					[Elaboration] Quantity that cannot trade		
					through the away markets.		
					<pre>(Symbolic name: [DoNotTradeThrough])</pre>		
	1301	MarketID	CHANGE	String	Identifies the <mark>Mm</mark> arket	MktID	

	Tag	FieldName	Action	Datatype	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
	1477	NewsRefType	CHANGE	Int	Type of reference to another News(35=B) <u>m</u> Message item. Defines if the referenced news item is a replacement, is in a different language, or is complimentary. Valid Values: 0 = Replacement [Elaboration] The news item replaces the referenced news item which is removed. 1 = Other Language [Elaboration] The news item is identical to the referenced news item in content but uses a different language 2 = Complimentary [Elaboration] The news item represents additional information regarding the referenced news item.	RefTyp	
					<u>{TBD(3)3</u> = Withdrawal [Elaboration] Withdrawal of the referenced news item, e.g. to correct an error.		
	NIA	<narkatcogmontcog< td=""><td>ADD</td><td></td><td>(Symbolic name: [Withdrawal])</td><td></td><td>Add to massage</td></narkatcogmontcog<>	ADD		(Symbolic name: [Withdrawal])		Add to massage
	NA	<marketsegmentsco peGrp></marketsegmentsco 	ADD			<mktsegscope></mktsegscope>	Add to message MarketDataRequest
	NA	<relatedtradegrp></relatedtradegrp>	ADD			<reltdtrd></reltdtrd>	Add to components <mdfullgrp>, <mdincgrp></mdincgrp></mdfullgrp>

Appendix B - Glossary Entries

Term	Definition	Field where used
Linkage Handling	In the US options markets, it is normally not allowed to trade through another market, i.e. customer orders must not be matched locally if an away market currently has a better price. The order is then locked to a local market maker who can then attempt to get the better price at the away market and then match the locked order at that price. The associated processes are called linkage handling and may be active or inactive for a given instrument.	LinkageHandlingI ndicator(TBD<u>244</u> <u>8</u>)

Appendix C - Abbreviations

Term	Proposed Abbreviation	Proposed Messages, Components, Fields where used
Linkage	Lnkg	LinkageHandlingIndicator(TBD2448)
Aggressor	<u>Agrsr</u>	AggressorSirde(2446)

Appendix D - Usage Examples

NONE