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INDUSTRY-DRIVEN MESSAGING STANDARD℠

Global Exchanges and Markets Committee

FX Spot and Forward Swaps Matching Gap Analysis

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[Revision #13]

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Document History

Revision	Date	Author	Revision Comments
Initial FX Spot and Forwards Matching Gap Analysis by Thomson Reuters	November 6th, 2008	N. Micelli	First draft of gap analysis identifying new FIX v5.0 tags required to support FX Matching on Reuters. This working draft was not published in this FPL template format
Comments to Thomson Reuters initial proposal	November 26th, 2008	H. Klein	Hanno Klein created a document called "Analysis of FX Spot and Forwards Matching Requirements of Thomson Reuters". The implementation suggestions presented in Hanno's paper have been incorporated into this proposal.
Revision #1	January 30th, 2009	N. Micelli	Initial working draft based on previously mentioned documents. -- First release using the FPL template format.
Revision #2 , 3	February 11th/ 13th 2009	N. Micelli	Updates based on initial feedback from Hanno Klein along with typo corrections.
Revision #4, 5, 6, 7	February 18, 2009 March 5th, 2009 March 17th, 18th 2009	N. Micelli	Corrected typos and included additional comments from GEMC meetings held on Feb 19th, March 5th and March 12, 2009. Updates related to new LimitAmtType enum
Revision #8, 9	Match 19th, 2009 March 20th, 2009	N. Micelli	Final update from the GExMC minor corrections to the LimitAmtType. Updated data dictionary.
Revision #10, 11 , 12	March 27th, 2009 March 30, 2009	N. Micelli	Update from the GTC call on Match 27th, 2009. Add "Cancel On Logout" to ExecRestatementReason(378)
Revision #13	April 16, 2009	N. Micelli	Update for final GTC board voting. Changed data types for LimitAmtRemaining and LastLimitAmt to "Amt" from Int Added "Order Entry" enumeration to TriggerType

1 Introduction

Thomson Reuters is developing a new FIX interface into our automated Spot and Forwards Matching services. The interface is currently being developed using FIX version 5.0 SP1.   One of the design requirements for the interface is to utilize existing FIX v5.0 tag definitions wherever possible (e.g. there is a strong desire to minimize the usage of custom tags). This gap analysis is intended to highlight functional areas where, as of the date of this writing, we have been unable to map our existing FX Matching business messaging requirements directly into the FIX v5.0 SP1 specification. This paper lists each business requirement, followed a brief analysis statement along with the suggested implementation.

Note on Terminology: Thomson Reuters terminology is used initially within the introduction of each section to describe the OTC FX Matching requirement, (generally these are the level 2 headings). The analysis sections, (level 3+ headings) then attempt to normalize the terminology into that which is widely used by the FIX standard.

2 Business Requirements

2.1 *FX Spot or FX Forward Swap I-Deal Transaction Types*

Category: Trading

Direction: Order entry from the FIX client application to the Thomson Reuters Matching service.

I-Deal Transactions:
The I-Deal requirement is to enter a bid and offer for a single instrument in a single transaction. This transaction is typically used by sell side market makers. Each side of the transaction must specify the same instrument (i.e. EUR/USD) however the BID and Offer sides can potentially have a different prices and quantities.   I-Deal order types are valid within both the FX Spot and FX Forwards Swaps OTC markets.

I-Deal Cancel Transactions:
The I-Deal Cancel requirement is to automatically cancel one order (side) when another order (side) of the I-Deal transaction has been completely filled. This is expressly one of the cases defined in the Gap Analysis from OMX that led to the introduction of ContingencyType (1385) and a value of 1 = "One Cancels the Other (OCO)".   We are proposing that the ContingencyType be extended to include a new value such as "Bid and Offer OCO" which can be used to express the I-Deal Cancel behavior.

2.1.1 Analysis

Given that one or both sides can be executed, usage of NewOrderMultileg orders cannot be applied here. The concept of tradable quotes with a bid and offer side is one option but would require Thomson Reuters to shift from an order driven market to a quote driven one.

The concept of list orders is the most desirable implementation option and would allow Thomson Reuters to stay, in principle, with an order driven market. List orders in FIX were introduced for the submission of a large number of orders, e.g. for basket trading. However, with FIX 5.0 SP1, so-called contingent orders were introduced to express a relationship of as few as two orders within a single message. The desired *I-Deal* relationship can be expressed by extending the ContingencyType (1385) field to identify the desired 'Bid and Offer' relationship for a single instrument. The transaction is modeled as a list of two NewOrderSingle orders (one for each side). This would entail conditional requirements on a few other fields that are documented in the data dictionary below.

It is assumed that initiators of Bid and Offer Contingency orders would operate using a "Non-Disclosed" trading model.

2.1.2 Bid and Offer Contingency Orders

New ContingencyType Values:
It is suggested that ContingencyType(1385) be extended to include two new enumerated values as follows:

<u>(5) = 'Bid and Offer'</u> -- An enumerated value used to indicate that the NewOrderList contains two orders against the same instrument (one on the Bid side and the other on the Offer side) within the contingency order. It is recommended that the Bid side of the transaction is always the first order in the list followed by the Offer side. NoOrders (73) within the new order list message must be set to an even value which represents an equal number of Bids and Offer orders within the list.

<u>(6) = 'Bid and Offer OCO'</u> -- this ContingencyType is identical to "Bid and Offer" above, with the exception of the fact the matching engine will automatically cancel any remaining quantity for a given side when the opposite side *has fully* traded away.

ExpireDate/Time values remain unaffected by this ContingencyType. If an I-Deal order is entered with an ExpireTime either the expiry event, a solicited or unsolicited cancel or the fully matched trade event for the "opposite side" will take precedence depending on whichever event occurs first.

Please refer to section 2.1.3 for the distinction between a 'Bid and Offer OCO' and a user initiated 'Bid and Offer' contingency list cancel.

Conditional Tag requirements for (5) **=** 'Bid and Offer' or (6)= 'Bid and Offer OCO' contingency orders**:**

- <u>NoOrders (73)</u>: For NoOrders(73) is always set to be even value such that there are an equal number of Bids and Offers in the list. It is implied that each contiguous set of orders in the list represents a new 'Bid and Offer' pair.

- <u><Instrument> Component</u>: The instrument component block remains unchanged and will follow the Contingent Order guidelines outlined in v5.0 SP1 Volume #4.

  "Certain properties (e.g. pre-allocations, time in force) of a contingent order are often the same for the set of orders. The recommendation is that the Initiator (sender of the contingent order) defines such properties for the first order of the list and the receiver applies them to the rest of the orders. Bilateral agreement determines what fields are applicable for this treatment."

  A 'Bid and Offer' contingency order with NoOrders = 2 represents a Buy and a Sell against the same instrument. Therefore the instrument is only required to be defined within the first order of contained the list. If present, each subsequent pair in the list will by default, inherit the instrument which was defined for the first order in the list. Bilateral agreement can define mechanisms which the allow the default instrument name to be changed by specifying different values in the Symbol(55) tag of each pair of "Bid and Offer" orders.

- <u>CFICode (461)</u> or (SecurityType(167) in v5.0 SP2) will be used to denote the asset class that the 'Bid and Offer' contingency order is intended to be executed against. For example,

  FX Spot:
  - CFICode = 'RCSXXX'
  - SecurityType= "FXSPOT"

  FX Forward Swaps:
  - CFICode(461) = 'FFCPNW' =
  - SecurityType(167) = "FXSWAPS"

- <u>Side (54)</u>: All 'Bid and Offer' or 'Bid and Offer OCO' contingency orders require at least one Bid and one Offer order within the list. It is implied that the Bid side is always placed before the associated Offer.

- TimeInForce (59): Remains the same as currently specified, however please refer to section 2.3 for another related change to TimeInForce which is being suggested as part of this proposal.

- All other fields within the NewOrderList message remain the same for contingency orders.

2.1.3 Cancellation of Bid and Offer Contingency Orders

The modification and cancellation of list orders is conducted through the appropriate messages for individual orders (OrderCancelReplaceRequest, OrderCancelRequest). They carry the field ListId (66) to reference back to the list.

Note:
Cancelation of a 'Bid and Offer' contingency order should not be confused with the functionality provided by the newly added 'Bid and Offer OCO' ContingencyType (value = 6). A 'Bid and Offer OCO' contingency order is treated similar to that of a standard OCO contingency order and maybe triggered independent from that of a user initiated Order or List CancelRequest .

2.1.3.1   Single side contingency order cancel

The cancellation of a single side of a 'Bid and Offer' contingency order can be achieved via an OrderCancelRequest which specifies either:

- the OrderId (37) retuned in the new order execution (for that side)
- users OrgClOrdId (41) that the user specified for that side.

Note: MassActionRequests and MassCancelRequests can also be used to cancel one or more contingency orders, details of which are out of scope of this proposal.

2.1.3.2   Contingency order cancel (both sides)

The simultaneous cancellation of both sides (i.e. Bid and Offer) of a contingency order can be achieved via a ListCancelRequest which specifies the ListId (66) provided by the user within the user's original NewOrderList message.

2.1.4 Execution Reports

New order executions for "Bid and Offer" contingency orders are handled in the same manner as existing list orders. There will be a separate execution message returned for each side (i.e. Bid and Offer) of the contingency order. Executions for each side of a 'Bid and Offer' contingency order are treated identical to existing order execution messages. Where, both executions contain the same ListId (66) from the original list order request and a unique values for ClOrdId (11) and OrderId (37) each representing individual side of the Bid and Offer ContingencyType list order.

2.1.4.3   Cancel Execution Messages

Cancel execution messages remain largely unchanged, as each side within the 'Bid and Offer" contingency order can be cancelled with a separate execution report.

We are however, recommending that ContingencyType (1385) field be added to the ExecutionReport(8) message. This will be used to provide additional context back to the user when unsolicited cancel ExecutionReports (ExecType = 4) are triggered from asynchronous events which have satisfied the user's ContingencyType filter.

2.2 FX Spot and Forward Swaps Order Entry Attributes

Category: Trading

Direction: Order entry from the FIX client application to the Thomson Reuters Matching service

There are two entry order attributes within our existing FX Matching service that are not supported by FIX v5.01 SP1.

1. **Jobbing Mode –** a limit order attribute which specifies whether or not the matching host automatically cancels all orders, originating from the same user, on the same instrument and side (both sides for I-Deal orders) prior to positioning the newly entered order into the matching order book. This attribute cannot be used with IOC (Fill and Kill) orders. FIX clients are notified of any cancel order executions that result from this flow.

2. **Implicit Remove –** A limit order attribute which specifies whether or not the matching host allows two orders, originating from the same user, to be placed into the order book against the same instrument, for the same price and side. If disabled, multiple orders can be positioned from the same user, for the same instrument, price and side. If enabled the matching host automatically cancels the old order and positions the new order. In the FX Spot market new orders loose their temporal position within the order book. In the FX Swaps market new orders only lose their temporal position in the order book if the quantity of the new order is greater then the quantity of the old order. FIX clients are notified of any cancel order executions that result from this flow.

Thomson Reuters is effectively asking for a shortcut to avoid having to send a cancellation message first followed by a new entry. The requirement, in summary, is to trigger certain order cancellations upon the entry of a new order. This automatic behavior can be found in quote driven markets where there is typically a single quote per user and instrument and a new quote simply overrides the old one. Here again, due to the nature of our existing FX Matching service, Thomson Reuters wishes to stay with an order driven model.

2.2.1 Analysis

The Jobbing Mode and Implicit Cancel requirements can be satisfied by means of an extension to the component <TriggeringInstruction>.

The field TriggerAction (1101) can be used to express that a cancellation (value = 3) is desired. The absence of this field means that no automatic cancellation is desired. The definition of a target for cancellation requires a new FIX field if it is not the order carrying the triggering instruction. We suggest to model this similar to concepts used for fields such as MassActionScope (1374) and call this new field TriggerScope (1628) which is only relevant for TriggerAction=3. The big difference would however be that no additional parameters need to be specified, merely references to fields in the given order. The following values would be needed:

- 0 – This order (default)
- 1 – Other order
- 2 – All other orders for the given security
- 3 – All other orders for the given security and price
- 4 – All other orders for the given security and side
- 5 – All other orders for the given security, price and side

The purpose of the first two values is as follows. The default should be that the trigger applies to the current/given order only. The value "Other order" would reference the field RefOrderID which is currently only used for a hit and take market where a NewOrderSingle points to another order to match against it. We see generic value in providing the ability to cancel an arbitrary order(s) (based on TriggerScope) prior to adding the new order.

As usual, we should allow user-defined values above 100 to reference other fields in the order message. The restriction of orders belonging to the same user (reference in Parties block) should always be assumed unless otherwise specified within the bilateral agreement. We have resisted defining standard values referring to a scope beyond the individual instrument, e.g. cancel all orders of a type, group, underlying, product, trading session, market

segment, market or even simply all my orders. This should be left to OrderMassCancelRequest and OrderMassActionRequest and require an explicit message prior to the entry of a new order.

The ExecutionReport message should be used to communicate the automatic cancellations back to the user. It is a solicited cancel, i.e. the field ExecRestatementReason (378) is not needed in this context.

2.3 TimeInForce Attributes

FX Matching on Reuters supports a limit order timeout value referred to as *Timed Duration*, specified in seconds, which defines how long the order is active in the market. The FX Spot and Forwards matching engine will automatically cancel the GTD limit order type based on this value. The elapsed time duration starts at the point in which the matching engine successfully positions the new limit order into its order book. The *time duration* attribute is required for those clients who do not wish to use an absolute date/timestamp to specify the life of their order(s). This alleviates the need for the FIX client application to maintain a granular time sync with the Matching service.

The requirement is therefore to explicitly define a time duration field in addition to the existing absolute day and time fields already defined in the v5.0 SP1 specification.

2.3.1 Analysis

To satisfy this requirement we suggest the following implementation:

1. Add a new value to TimeInForce (59), e.g. "A – Good For Time" (GFT) to express this requirement.

2. Add a second field to define the actual duration, e.g. ExposureDuration (1629) to complement the existing field ExpireDate (432) and ExpireTime (126) that are also used in combination with TimeInForce (59). The ExposureDuration is only used if TimeInForce = "Good For Time" and its units default to seconds.

Bilateral Agreement

- We will leave it up to bilateral agreement to define where the clock starts ticking, i.e. when the order enters the infrastructure of the marketplace or only when the matching engine starts to process it. In failover situations there might be many seconds between these two points in time and the user might not want the matcher to work on it when he is back up again.

- The units for ExposureDuration default to seconds but are subject to bilateral agreement.

Note: TimeInForce(59), ExpireDate(432) and ExpireTime(126) are used in combination within several FIX messages. For the purpose of this paper we are assuming that the addition of ExposureDuration will be applicable to all messages which currently include TimeInForce(59).

The set of messages (and components) affected by the introduction of a new ExposureDuration field are as follows:

- NewOrderSingle (D)   OrderCancelReplaceRequest (G)
- NewOrderCross (s)   CrossOrderCancelReplaceRequest (t)
- NewOrderMultileg (AB)   MultiLegCancelReplace (AC)
- ExecutionReport (8)
- ListOrdGrp
- MDFullGrp   MDIncGrp

2.4 ExecRestatementReason

The FX Matching on Reuters service is required to automatically cancel all open orders when a user has disconnected or requests to logout from the service. In the event of a network disconnect event or a user logout each affected user will receive a set of unsolicited cancel messages (one for each open order they had at the time of the disconnect or logout event).

At the moment there are no enumeration values which specifically describe these unsolicited cancel events within the ExecRestatementReason (378). (e.g. *It is felt that the existing value of '7' – "Cancel on System Failure" does not adequately describe a network disconnect event).*

We are therefore recommending the addition of a two new enumerations defined as:
- (value = 12) "Cancel on Connection Loss".
- (value = 13) "Cancel on Logout".

These follow the naming conventions already used within ExecInst(18).

2.5 FX Spot and FX Swaps Post Trade Attributes

Category: Post Trade:

Direction: Unsolicited post trade messages from the Thomson Reuters Matching Service to the FIX client application.

TradeCaptureReport(AE) -- Proposal to introduce new TCR and TCR Acknowledgement attributes.

2.5.1 Rate Direction

The Thomson Reuters Matching Service provides the capability to display FX rates in International or London modes. Depending on their geographic location these settings may have different meaning to the end users of the service *(details of which are out of scope of this document)*. In summary, there are two ways in which a rate can be expressed on the Matching service. This is specified via a field called Rate Direction and is defined as follows:

Rate Direction – Enumerated value denoting Normal or Inverse.

- Normal -- implies that the rate in the deal represents the number of units of currency 2 needed to purchase one unit of currency 1. Thus, the volume of currency 2 is equal to the volume of currency 1 multiplied by the exchange rate.

- Inverse -- implies that the rate in the deal represents the number of units of currency 1 needed to purchase one unit of currency 2. Thus, the volume of currency 2 is equal to the volume of currency 1 divided by the exchange rate.

2.5.1.4 Analysis

The requirement is to be able to express the rate in two different ways. The current FIX spec (Volume 7, page 164) says:

> *FX symbology is defined in the Electronic Broking Services, Ltd. (see http://www.ebs.com) format of "CCY1/CCY2", where CCY1 and CCY2 are ISO currency codes. This is read as "currency 2 per currency 1". FX symbology is carried in the Symbol (55) field.*

The requirement does not change the symbol definition but the intention is to further qualify the fields LastSpotRate(194), Price(44) and LastPx(31). We are therefore suggesting that the existing field PriceType(423) be expanded to include two new values (20) = Normal and (21) = Inverse.

2.5.2 FX Spot Credit Draw Down and Credit Remaining

The Thomson Reuters Matching service maintains bilateral credit relationships between market participants. FX Matching between two counterparties is only permitted for quantity values where adequate bilateral credit exists. Credit limits are maintained in USD and a drawn down for the notional amount of each trade between the two counterparties.

Definitions:
1. **Credit Draw Down** – an integer value denoting the quantity which was drawn down (or consumed) between the two counterparties as a result of the trade. Within Reuters Matching the credit drawn down value is always denominated in whole millions and is only required for FX Spot Matching TCR messages.

2. **Credit Remaining** – an integer value denoting the amount of credit remaining between the receiver of the TCR and his counterparty after the subject trade has been executed. Within Reuters Matching the credit remaining value is always denominated in whole millions and is only required for FX Spot Matching TCR messages.

For reference a basic example of the credit management requirement is provided in section 9.1 below.

2.5.2.5   Analysis

The initial suggestion was to model the new fields after the order quantity fields. However, after review of several different implementation options we are suggesting that the Credit Draw Down and Credit Remaining field be modeled as a generic repeating group. The tag "LimitAmtType" has been suggested to assure that the terms "Credit vs Risk" are clearly distinguishable. The requirement is to add this repeating group to the TradeCaptureReport (AE), TradeCaptureReportAck(AR) and ExecutionReport(8) messages:

The definition of the repeating group is as follows:

NoLimitAmts – indicates the number of 'LimitAmtTypes' that have been defined within this repeating group.

→ **LimitAmtType** – enumeration with values of 0 = Credit Limit, 1= Gross Position Limit, 2= Net Position Limit, 3= Risk Exposure Limit, 4= Long Position Limit, 5 = Short Position Limit.

→ **LastLimitAmt** – indicates the amount of the specified 'LimitAmtType' that has been drawn down against the counterparty for the given trade.

→ **LimitAmtRemaining** -- indicates the remaining amount of the specified 'LimitAmtType' between the receiver of the TCR (or ExectionReport) and the specified counterparty.

→ **LimitAmtCurrency** – indicates the currency which was used within the specified "LimitAmtType".

Units and maximum values of the specified 'LimitAmtType' are subject to Bi-lateral agreements.

2.5.3 CLS Indicator

There is a requirement to indicate whether a trade defined within a given TradeCaptureReport and TradeCaptureReportAck is eligible for CLS settlement. In working with the CME on the FXMarketSpace product the CME clearing house utilized a SettlePartyRole value of '10' = 'Settlement Location' to denote that the trade should be settled via CLS. While this approach works in principle it has been concluded that settlement instructions should be explicitly defined leaving no room for interpretation. As such, we are suggesting that the SettlePartyRole (784) be expanded to include a new enumerated value of 'CLS Member Bank'. This will be used to identify that the settlement party specified in the TCR's (SettlDetails component) is a CLS member and that the members BIC should be used for CLS settlement. Please refer to section 9.2 for additional details.

2.5.4 Settlement Source

The following values are currently defined for SettlObligSource (tag 1164).

Indicates source of Settlement Instructions

Valid values:
        1 – Instructions for Broker
        2 - Institutions for Institution
        3 - Investor (e.g. CIV use)

We believe that the current values are specific to the exchange based markets (in particular equities) and do not clearly describe OTC market participants. We are therefore suggesting that this enumeration be expanded to include two new values as follows:

        (4) -- Buyer
        (5) -- Seller

Please refer to section 9.2 for additional details.

3 Issues and Discussion Points

 All remaining open issues were addressed at the March 18th, GExMC meeting and are now reflected in this revision of the document.

4 Proposed Message Flow

The introduction of this proposal does not introduce any changes to the existing FIX v5.0 Sp1 message flows.

5 FIX Message Tables

5.1 ExecutionReport Message (8)

Tag	Field Name	Req'd	Action	Mappings and Usage Comments	FIX Spec Comments
	Standard Header	Y	Update message	Add new and existing fields to this message	MsgType ='8'
40	OrdType	N	n/a	Existing tag	No Change
423	PriceType	N	update enum	Used to further qualify a rate for FX Spot or FX Swap deal.	See data dictionary for full definition.
44	Price	N	n/a	Existing tag	No Change
	Other existing tags here				
59	TimeInForce	N	n/a	Existing tag	No Change
168	EffectiveTime	N	n/a	Existing tag	No Change
432	ExpireDate	N	n/a	Existing tag	No change
126	ExpireTime	N	n/a	Existing tag	No change
1629	** ExposureDuration	N	Add	Conditionally required when TimeInForce = "Good for Time" (GFT).	
18	ExecInst	N	n/a	Existing tag	No change
	Other existing tags here				
29	LastCapacity	N	n/a	Existing tag	No Change
	<LimitAmts>	N	Add	Add new repeating group here.	
151	LeavesQty	Y	n/a	Existing tag	No Change
	Other existing tags here				
513	ReqistID	N	n/a	Existing tag	No Change
1385	ContingencyType	N	Add	For contingency orders, the type of contingency as specified in the order.	See data dictionary for new enumeration values.
	Other existing tags here				
	Standard Trailer	Y			

** This field will also be added to the following messages:

- ExecutionReport(8)
- NewOrderSingle (D)   OrderCancelReplaceRequest (G)
- NewOrderCross (s)*   CrossOrderCancelReplaceRequest (t)
- NewOrderMultileg (AB)   MultiLegCancelReplace (AC)

6 FIX component blocks

6.1 ListOrdGrp

Tag	Field Name	Req'd	Action	Mappings and Usage Comments	Comments
				<ListOrdGrp>	
59	TimeInForce	N	n/a	Existing tag	No Change
168	EffectiveTime	N	n/a	Existing tag	No Change
432	ExpireDate	N	n/a	Existing tag	No change
126	ExpireTime	N	n/a	Existing tag	No change
1629	** ExposureDuration	N	Add	New Tag	Conditionally required when TimeInForce = "Good for Time" (GFT).
427	GTBookingInst	N	n/a	Existing tag	No Change
				</ListOrdGrp>	

** This field will also be added to the following Components
- ListOrdGrp(as specified above)
- MDFullGrp
- MDIncGrp

6.2 TriggeringInstruction

Tag	Field Name	Req'd	Action	Mappings and Usage Comments	Comments
				<TriggeringInstruction>	
1100	TriggerType	N	n/a	Existing tag	Add new enumeration (tbd) = 'On Order Entry' to be used with new TriggerScope(tbd) tag.
1101	TriggerAction	N	n/a	Existing tag	No Change
1628	TriggerScope	N	Add	New Tag	Conditionally required when TriggerAction = 3 (Cancel).
				</TriggeringInstruction>	

6.3 TradeCapRptSideGrp

Tag	Field Name		Req'd	Action	Mappings and Usage Comments	Comments
					<TradeCapRptSideGrp>	
552	NoSides		Y	n/a	Existing tag	No Change
→	54	Side	Y	n/a	Existing tag	No Change
→	1	Account	N	n/a	Existing tag	No Change
→	<LimitAmt Component>		N	add		
				</TradeCapRptSideGrp>		

6.4 LimitAmts

Tag	Field Name		Req'd	Action	Mappings and Usage Comments	Comments
					<LimitAmt>	
1630	NoLimitAmts		N	Add	New Tag	
→	1631	LimitAmtType	N	Add	Conditionally required when NoLimitAmts > 0	
→	1632	LastLimitAmt	N	Add	New Tag	
→	1633	LimitAmtRemaining	N	Add	New Tag	
→	1634	LimitAmtCurrency	N	Add	New Tag	
					</LimitAmt>	

7 Appendix A - Data Dictionary

Tag	Field Name	Action	Data type	Description	FIXML Abbrev.	Add to / Deprecate from Message type or Component block
1385	ContingencyType	Add new enumeration values	Int	5 = Bid and Offer – defines a contingency order with two or more sides (always an even number of orders) (i.e. Bid and Offer). 6 = Bid and Offer OCO -- defines a contingency order with two or more sides (i.e. Bid and Offer) however one side is automatically canceled when the other side is fully traded away (always an even number of orders). NoOrders tag in the NewOrderList is always an even number for these ContingencyTypes.		Add the two enumerations to be used in: • NewOrderList(E) • ListStatus(N) Add ContingencyType to the ExecutionReport(8).
1100	TriggerType	Add new enumeration	Int	5 – 'On Order Entry or order modification entry' – to be used with TriggerScope (1628) to indicates that the TriggerAction(1101) should be executed immediately upon entry of 'this' order or order modification into the market.		Add new enumeration to the <TriggerType> field.
1628	TriggerScope	New Field	Int	Defines the scope of TriggerAction(1101) when it is set to "cancel" (3). Values: 0 – This order (default) 1 – Other order (use RefId) 2 – All other orders for the given security 3 – All other orders for the given security and price 4 – All other orders for the given security and side 5 – All other orders for the given security, price and side	TrgrScope	Add new enumerated tag to the <TriggerInstruction> component. This new enumeration value is modeled after MassActionScope. This will only be used with TriggerAction = 3 (Cancel).
59	TimeInforce	Add new enumeration value	char	New Enumeration Value (A) – Good For Time – (GFT)		Add new enumerated value to the TimeInForce field. This new value is modeled after existing values.

Comment [LT1]: In glossary

Comment [LT2]: In glossary

Comment [LT3]: In glossary

Tag	Field Name	Action	Data type	Description	FIXML Abbrev.	Add to / Deprecate from Message type or Component block
1629	ExposureDuration	New Field	Int	For orders, this is the time in seconds of a "Good for Time' (GFT) TimeInForce. Positive integer value which represents the time is seconds in which the new order remains active in the market before it is automatically cancelled (e.g. expired). Bi-lateral agreements will dictate the maximum value of this field. It is assumed that most systems will impose a max limit of 86,400 seconds (i.e. 24 hours).	ExpsreDur	Add the ExposureDuration (1629) field to all messages and components where TimeInForce is currently available. NewOrderSingle OrderCancelReplaceRequest NewOrderCross CrossOrderCancelReplaceRequest NewOrderMultileg MultiLegCancelReplace ExecutionReport ListOrdGrp MDFullGrp MDIncGrp TradeReportOrderDetails
378	ExecRestatementReason	Add new enumeration values		(value = 12) defined as "Cancel On Connection Loss" This value is used only when unsolicited cancels are generated as a result of a network disconnect. (value = 13) defined as "Cancel On Logout" This value is used when unsolicited cancels are generated as a result of a user logout.		Add two new enumerated values to the ExecRestatementReason field.
1630	NoLimitAmts	New Field	NumInGroup	The number of limit amount entries	NoLmtAmts	Add the new field to: • TradeCaptureReport (AE) • TradeCaptureReportAck(AR) • ExecutionReport(8).

Comment [LT4]: in glossary

Comment [LT5]: in glossary

Tag	Field Name	Action	Data type	Description	FIXML Abbrev.	Add to / Deprecate from Message type or Component block
1631	LimitAmtType	New Field	Int	Identifies the type of limit amount expressed in LastLimitAmt(1632) and LimitAmtRemaining(1633). 0 = Credit Limit 1= Gross Position Limit 2 - Net Position Limit 3 - Risk Exposure Limit 4 - Long Position Limit 5 - Short Position Limit or any value conforming to the data type Reserved100Plus	LmtAmt Typ	Add the new field to: • TradeCaptureReport (AE) • TradeCaptureReportAck(AR) • ExecutionReport(8).
1632	LastLimitAmt	New Field	Amt	The amount that has been drawn down against the counterparty for a given trade. The type of limit is specified in LimitAmtType(1633). Bilateral agreements dictate the units and maximum value of this field.	LastLmt Amt	Add the new field to: • TradeCaptureReport (AE) • TradeCaptureReportAck(AR) • ExecutionReport(8).
1633	LimitAmtRemaining	New Field	Amt	The remaining limit amount between the counterparties. The type of limit is specified in LimitAmtType(1631). Bilateral agreements dictate the units and maximum value of this field.	LmtAmt Rmng	Add the new field to: • TradeCaptureReport (AE) • TradeCaptureReportAck(AR) • ExecutionReport(8).
1634	LimitAmtCurrency	New Field	Curre ncy	Indicates the currency that the limit is specified in. See Currency(15) for additional description and valid values.	LmtAmt Ccy	Add the new field to: • TradeCaptureReport (AE) • TradeCaptureReportAck(AR) • ExecutionReport(8).
423	PriceType	Add new enumeration values	Int	Used in OTC FX trades to further qualify LastSpotRate(194) Price(44) and LastPx(31). (20) = Normal rate representation (e.g. FX rate)-- represents the number of units of currency 2 that is required to purchase one unit of currency 1. 21) = Inverse rate representation (e.g. FX rate) -- represents the number of units of 1 that is needed to purchase one unit of currency 2.		Add new enumeration values to the PriceType field.

Comment [LT6]: in glossary

Comment [LT7]: in glossary

Tag	Field Name	Action	Data type	Description	FIXML Abbrev.	Add to / Deprecate from Message type or Component block
1164	SettlObligSource	Add new enumeration values	Int	(4) – Buyer's settlement instructions (5) -- Seller's settlement instructions		Add new enumerated value to the SettleObligSource field.
784	SettlePartyRole	Add new enumeration value	Int	86 – 'CLS Member Bank'		Add new enumerated value to the SettlePartyRole field. (this is being added to PartyRole as SettlePartyRole picks up its values from that field)

7.1 New Abbreviations

Term	Proposed Abbreviation
Exposure	Expsre
Duration	Dur
Amounts	Amts
Remaining	Rmng

8 Appendix B - Glossary Entries

Term	Definition	Field where used
Bid and Offer (contingency type)	Defines a contingency order with two or more sides (always an even number of orders) (i.e. Bid and Offer).	[ContingencyType]
Bid and Offer OCO (contingency type)	Defines a contingency order with two or more sides (i.e. Bid and Offer) however one side is automatically canceled when the other side is fully traded away (always an even number of orders).	[ContingencyType]
On Order Entry or Order Modification Entry	To be used with TriggerScope (1628) to indicates that the TriggerAction(1101) should be executed immediately upon entry of 'this' order or order modification into the market.	[TriggerType]
Cancel On Connection Loss	This value is used only when unsolicited cancels are generated as a result of a network disconnect.	[ExecRestatementReason]
Cancel On Logout	This value is used when unsolicited cancels are generated as a result of a user logout.	[ExecRestatementReason]
Normal rate representation	represents the number of units of currency 2 that is required to purchase one unit of currency 1	[PriceType]
Inverse rate representation	represents the number of units of 1 that is needed to purchase one unit of currency 2	[PriceType]

9 Appendix C - Usage Examples

9.1 FX Matching Bilateral Credit Example

The Thomson Reuters Matching service utilizes a real time bi-lateral credit algorithm as part of its matching process.

Example:
- Party A has 100mio Credit extended to Party B @1.2406
- Party B has 200mio Credit extended to Party A @1.2406

- Party A enters an order for 400mio
- Party B enters an order for 300mio

Note: -- Bi-lateral credit limits have nothing to do with max order size for a given party.

A match occurs between Party A and Party B on USD/CAD.

- The maximum quantity of the trade can only be 100mio of the base CCY traded (i.e. max of the bi-lateral credit between both parties).

Credit Drawn Down /Remaining is as follows (all in USD terms, units of 1 million)

- Party A to Party B Credit Drawn Down = 100mio
- Party B to Party A Credit Drawn Down = 100mio

- Party A Credit Remaining to Party B = 0
- Party B Credit Remaining to Party A = 100mio

The credit draw down and credit remaining between the two parties is reported in the TradeCaptureReport is sent to each counterparty.

After the trade:
- party A still has an open order on USD/CAD for 300mio
- Party B still has an open order on USD/CAD for 200mio

The remaining quantity in these orders do not match because the party A's credit to party B is 0 resulting in a value of 0 bilateral credit between the two parties.

9.2 Settlement Instruction Example

The following is a working example of how settlement instructions will be defined by the Thomson Reuters Matching FIX interface.

Tag	Field Name	Valid Values
1158	NoSettlDetails	Used to group each settlement party that is being reported within this TCR. Normally, this will be set to 2 representing the set of payment instructions for each counterparty of the deal.
1164	SettlObligSource	*Area of proposed change within this proposal:* Current values are: 1 – (Instructions of Broker) – typically represents Sell side in equities 2 – (Instructions for Institution) – typically represents Buy side in equities *Suggested additions are:* Tbd – Buyer Tbd – Seller
781	NoSettlPartyIds	Used to group the number of settlement party identifiers. This will typically be set to 1 in the Thomson Reuters Matching service.
782	SettlPartyId	This represents the Buyer or Seller's textural instructions for payment. Example being → 'CITIBANK; New York' If a SettlPartyId has not been specified for party/side then this tag will contain the text "Instructions unspecified".
783	SettlPartyIdSource	C – Generally Accepted Market Participant is used to denote the type of settle party.
784	SettlPartyRole	*Area of proposed change within this proposal:* Current values are: 10 - Settlement Location – Currently used when the trade is marked for CLS settlement. 27 - Buyer/Seller (Receiver/Deliverer) for all non-CLS trades. *Suggested new value is:* Tbd – 'CLS Member Bank' – Will be used instead of '10' when the trade is eligible for CLS settlement.
802	NoSettlPartySubIds	0 – If the BIC code has not been specified 1 -- If the BIC code has been specified
785	SettlPartySubId	BIC for the settlement party (i.e. Buyer or Seller) defined in this nested component. Example being 'XXXABCDE80A' Notes: BICs can be specified either for CLS settlement (via a CLS member bank) or for settlement outside of CLS. Participants who are CLS member banks are not required to settle via CLS.
786	SelltPartySubIdType	16 – Bank Identifier Code (BIC)