Global Exchanges and Markets Committee

HKEx Pre-trade Extensions

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Primary Contact Person:	Kenneth To	Release Identifier:	FIX 5.0 SP3

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Document History

Revision	Date	Author	Revision Comments
0.1	July 9, 2010	Kenneth To (HKEx)	1st draft
0.2	November 22, 2010	Hanno Klein, Deutsche Börse Group	Review and comments after discussion in GexMC on Nov 15 Added FIXML abbreviations for new fields
0.3	November 30, 2010	Kenneth To (HKEx)	New proposed mapping for TradingSessionID and TradingSessionSubID Change addition of TickTableID to Instrument (or BaseTradingRules) component instead of Security List and Security List Update Report messages. Add ShortSaleIndicator to BaseTradingRules instead of Instrument component block.
0.4	20 December, 2010	Kenneth To (HKEx)	Revise after receiving comments on Dec 14 and discussion in GExMC on Dec 17 Remove all proposed user-defined values (100plus) for TradingSessionSubID and TradSesStatus
0.5	January 18, 2011	Hanno Klein, Deutsche Börse Group	Updates after GexMC on Jan 10 to prepare for GTC submission
0.6	January 21, 2011	Kenneth To (HKEx)	Updates after GTC meeting on Jan 20 to prepare for public review. Remove the request for adding ShortSaleIndicator. Similar field was already approved by GTC in other proposal. Use more generic terms “Test Instrument” and “Dummy Instrument”.
0.6	2011-08-28	Jim Northey	As built
	2011-12-01	L. Taikitsadaporn	Replaced "TBD" with assigned tag numbers and enum values.

1 Introduction

HKEx finds gaps for some existing FIX pre-trade messages that provide market structure reference data and securities reference data to the FIX clients. HKEx requests to add tags and enumerations to fill the gaps for the following pre-trade messages:

- New field **TradSesControl(1785)** for message Trading Session Status (35=h) to convey if transitions are automatic or manual.
- New field **TradeVolType(1786)** for component block BaseTradingRules to convey whether minimum and maximum order volumes are defined in units or round lots.
- New field Ref**TickTableID(1787)** for component block Instrument to convey the identifier of a spread table.
- New enumerations for field InstrAttribType (871) to flag test and dummy instruments

2 Business Workflow

HKEx sends market definition and security list to the broker system upon session establishment as reference data for subsequent order submission. Trading session status will also be sent to broker system to notify the current market status. These reference data can also be sent on request from the broker system.

2.1 Trading Session Status

HKEx runs the normal published trading timetable during normal trading day and the trading session control is automatic. During some special conditions (e.g. typhoon day), the trading session control may be changed to manual mode which will override the default trading timetable. The trading session control mode is therefore required to deliver to the broker system via the **Trading Session Status** message.

Proposed new field for Trading Session Status (35=h):

- TradSesControl(1785) – To indicate how control of trading session and sub-session transitions are performed

    0 – Automatic (default), meaning the trading session and sub-session transitions follow the normal trading timetable.

    1 – Manual, meaning the trading session and sub-session transitions defined in the normal trading timetable are overridden by manual control. Broker system will be notified the current trading session status through Trading Session Status message.

2.2 Market Definition

HKEx sends the Market Definition message as part of the start of day reference data to the broker system. It consists of Market ID and the maximum number of lots allowed for each order submission in accordance with the trading rule. The following changes are requested for the BaseTradingRule component block:

Proposed New Field for **BaseTradingRules** Component Block:

- TradeVolType(1786) – define the type of trade volume applicable for the MinTradeVol and MaxTradeVol

0 – Number of units (e.g. share, par, currency, contracts) (default)

1 – Number of round lots

Proposed description change:

- MaxTradeVol(1140): See description change in Appendix A – Data Dictionary

2.3 Security List and Security List Update Report

HKEx has defined few spread (price ticks) tables and each security is assigned to a spread table based on the nature of the security. Instead of attaching a bulky spread table definition for each security in the Security List message, a spread-table-code is preferred to be tagged to each security.

Other than normal tradable security, HKEx has defined some securities of attribute type “Dummy Stock”. It is always halted and is only activated for trade under very special condition (e.g. temporarily assigned for newly listed stock). Another type of security is “Test Stock” which is tradable but has no effect on the positions, exchange turnover etc.

Proposed new field for **Instrument** component block :

- RefTickTableID(1787) – Spread table code referred by the security or symbol.

Proposed new enumerations for **InstrAttribType(871)**:

- Test Instrument(34)
- Dummy Instrument(35)

(InstrAttribValue=Y/N for both new enumerations)

3 Issues and Discussion Points

N/A

4 Proposed Message Flow

There is no change to existing message flow.

5 FIX message tables

5.1 Trading Session Status

Tag	FieldName	Req'd	Action	Mappings and Usage Comments	FIX Spec Comments
StandardHeader		Y			MsgType = h (lowercase)
component block <ApplicationSequenceControl>		N			
335	TradSesReqID	N			Provided for a response to a specific Trading Session Status Request message (snapshot).
1301	MarketID	N			Market for which Trading Session applies
1300	MarketSegmentID	N			Market Segment for which Trading Session applies
336	TradingSessionID	Y			Identifier for Trading Session
625	TradingSessionSubID	N			
338	TradSesMethod	N			Method of trading:
339	TradSesMode	N			Trading Session Mode
325	UnsolicitedIndicator	N			Set to 'Y' if message is sent unsolicited as a result of a previous subscription request.
340	TradSesStatus	Y			State of the trading session
1368	TradSesEvent	N			Identifies an event related to the trading status of a trading session
567	TradSesStatusRejReason	N			Use with TradSesStatus = "Request Rejected"
341	TradSesStartTime	N			Starting time of the trading session
342	TradSesOpenTime	N			Time of the opening of the trading session
343	TradSesPreCloseTime	N			Time of the pre-close of the trading session
344	TradSesCloseTime	N			Closing time of the trading session
345	TradSesEndTime	N			End time of the trading session
1785	TradSesControl	N	Add		Indicates how control of trading session and subsession transitions are performed
387	TotalVolumeTraded	N			
58	Text	N			

354	EncodedTextLen	N			Must be set if EncodedText field is specified and must immediately precede it.
355	EncodedText	N			Encoded (non-ASCII characters) representation of the Text field in the encoded format specified via the MessageEncoding field.
component block <Instrument>		N			
StandardTrailer		Y			

6 FIX component blocks

6.1 BaseTradingRules component block

<Component Block BaseTradingRules>					
Tag	***FieldName***	***Req'd***	***Action***	*Mappings and Usage Comments*	***Comments***
component block <TickRules>		N			This block specifies the rules for determining how a security ticks, i.e. the price increments at which it can be quoted and traded, depending on the current price of the security
component block <LotTypeRules>		N			Specifies the lot types that are valid for trading.
component block <PriceLimits>		N			Specifies the price limits that are valid for trading.
827	ExpirationCycle	N			
1786	TradeVolType	N	Add		Defines the unit in which MinTradeVol and MaxTradeVol express order quantity
562	MinTradeVol	N			The minimum order quantity that can be submitted for an order.
1140	MaxTradeVol	N			The maximum order quantity that can be submitted for a security.

					For listed derivatives this indicates the minimum quantity necessary for an order or trade to qualify as a block trade
1143	MaxPriceVariation	N			The maximum price variation of an execution from one event to the next for a given security. Expressed in absolute price terms.
1144	ImpliedMarketIndicator	N			
1245	TradingCurrency	N			Used when the trading currency can differ from the price currency
561	RoundLot	N			Trading lot size of security
1377	MultilegModel	N			Used for multileg security only. Defines whether the security is pre-defined or user-defined. Not that value = 2 (User-defined, Non-Securitized, Multileg) does not apply for Securities.
1378	MultilegPriceMethod	N			Used for multileg security only. Defines the method used when applying the multileg price to the legs.
423	PriceType	N			Defines the default Price Type used for trading.
<Component Block BaseTradingRules>					

6.2 Instrument component block

<Component Block Instrument>					
Tag	***FieldName***	***Req'd***	***Action***	*Mappings and Usage Comments*	***Comments***
55	Symbol	N			Common, "human understood" representation of the security. SecurityID value can be specified if no symbol exists (e.g. non-exchange traded Collective Investment Vehicles) Use "[N/A]" for products which do not have a symbol.
65	SymbolSfx	N			Used in Fixed Income with a value of "WI" to indicate "When Issued" for a security to be reissued under an old CUSIP or ISIN or with a value of "CD" to indicate a EUCP with lump-sum interest rather than

					discount price.
48	SecurityID	N			Takes precedence in identifying security to counterparty over SecurityAltID block. Requires SecurityIDSource if specified.
22	SecurityIDSource	N			Required if SecurityID is specified.
component block <SecAltIDGrp>		N			Number of alternate Security Identifiers
460	Product	N			Indicates the type of product the security is associated with (high-level category)
1227	ProductComplex	N			Identifies an entire suite of products for a given market. In Futures this may be "interest rates", "agricultural", "equity indexes", etc
1151	SecurityGroup	N			An exchange specific name assigned to a group of related securities which may be concurrently affected by market events and actions.
461	CFICode	N			Indicates the type of security using ISO 10962 standard, Classification of Financial Instruments (CFI code) values. It is recommended that CFICode be used instead of SecurityType for non-Fixed Income instruments.
167	SecurityType	N			It is recommended that CFICode be used instead of SecurityType for non-Fixed Income instruments. Required for Fixed Income. Refer to Volume 7 - Fixed Income Futures and Options should be specified using the CFICode[461] field instead of SecurityType[167] (Refer to Volume 7 - Recommendations and Guidelines for Futures and Options Markets.)
762	SecuritySubType	N			Sub-type qualification/identification of the SecurityType (e.g. for SecurityType="MLEG"). If specified, SecurityType is required.
200	MaturityMonthYear	N			Specifies the month and year of maturity. Applicable for standardized derivatives which are typically only referenced by month and year (e.g. S&P futures). Note MaturityDate (a full date) can also be specified.
541	MaturityDate	N			Specifies date of maturity (a full

					date). Note that standardized derivatives which are typically only referenced by month and year (e.g. S&P futures).may use MaturityMonthYear and/or this field. When using MaturityMonthYear, it is recommended that markets and sell sides report the MaturityDate on all outbound messages as a means of data enrichment. For NDFs this represents the fixing date of the contract.
1079	MaturityTime	N			For NDFs this represents the fixing time of the contract. It is optional to specify the fixing time.
966	SettleOnOpenFlag	N			Indicator to determine if Instrument is Settle on Open.
1049	InstrmtAssignmentMethod	N			
965	SecurityStatus	N			Gives the current state of the instrument
224	CouponPaymentDate	N			Date interest is to be paid. Used in identifying Corporate Bond issues.
1449	RestructuringType	N			
1450	Seniority	N			
1451	NotionalPercentageOutstanding	N			
1452	OriginalNotionalPercentageOutstanding	N			
1457	AttachmentPoint	N			
1458	DetachmentPoint	N			
225	IssueDate	N			Date instrument was issued. For Fixed Income IOIs for new issues, specifies the issue date.
239	RepoCollateralSecurityType	N			(Deprecated in FIX.4.4)
226	RepurchaseTerm	N			(Deprecated in FIX.4.4)
227	RepurchaseRate	N			(Deprecated in FIX.4.4)
228	Factor	N			For Fixed Income: Amortization Factor for deriving Current face from Original face for ABS or MBS securities, note the fraction may be greater than, equal to or less than 1. In TIPS securities this is the Inflation index. Qty * Factor * Price = Gross Trade Amount For Derivatives: Contract Value Factor by which price must be adjusted to determine the true nominal value of one

					futures/options contract. (Qty * Price) * Factor = Nominal Value
255	CreditRating	N			
543	InstrRegistry	N			The location at which records of ownership are maintained for this instrument, and at which ownership changes must be recorded. Can be used in conjunction with ISIN to address ISIN uniqueness issues.
470	CountryOfIssue	N			ISO Country code of instrument issue (e.g. the country portion typically used in ISIN). Can be used in conjunction with non-ISIN SecurityID (e.g. CUSIP for Municipal Bonds without ISIN) to provide uniqueness.
471	StateOrProvinceOfIssue	N			A two-character state or province abbreviation.
472	LocaleOfIssue	N			The three-character IATA code for a locale (e.g. airport code for Municipal Bonds).
240	RedemptionDate	N			(Deprecated in FIX.4.4)
202	StrikePrice	N			Used for derivatives, such as options and covered warrants
947	StrikeCurrency	N			Used for derivatives
967	StrikeMultiplier	N			Used for derivatives. Multiplier applied to the strike price for the purpose of calculating the settlement value.
968	StrikeValue	N			Used for derivatives. The number of shares/units for the financial instrument involved in the option trade.
1478	StrikePriceDetermination Method	N			
1479	StrikePriceBoundaryMeth od	N			
1480	StrikePriceBoundaryPreci sion	N			
1481	UnderlyingPriceDetermin ationMethod	N			
206	OptAttribute	N			Used for derivatives, such as options and covered warrants to indicate a versioning of the contract when required due to corporate actions to the underlying. Should not be used to indicate type of option - use the CFICode[461] for this purpose.
231	ContractMultiplier	N			For Fixed Income, Convertible Bonds, Derivatives, etc. Note: If

					used, quantities should be expressed in the "nominal" (e.g. contracts vs. shares) amount.
1435	ContractMultiplierUnit	N			
1439	FlowScheduleType	N			
969	MinPriceIncrement	N			Minimum price increment for the instrument. Could also be used to represent tick value.
1146	MinPriceIncrementAmount	N			Minimum price increment amount associated with the MinPriceIncrement [969]. For listed derivatives, the value can be calculated by multiplying MinPriceIncrement by ContractValueFactor [231]
996	UnitOfMeasure	N			0
1147	UnitOfMeasureQty	N			
1191	PriceUnitOfMeasure	N			
1192	PriceUnitOfMeasureQty	N			
1193	SettlMethod	N			Settlement method for a contract. Can be used as an alternative to CFI Code value
1194	ExerciseStyle	N			Type of exercise of a derivatives security
1482	OptPayoutType	N			
1195	OptPayoutAmount	N			Cash amount indicating the pay out associated with an option. For binary options this is a fixed amount
1196	PriceQuoteMethod	N			Method for price quotation
1197	ValuationMethod	N			Indicates type of valuation method used.
1198	ListMethod	N			Indicates whether the instruments are pre-listed only or can also be defined via user request
1199	CapPrice	N			Used to express the ceiling price of a capped call
1200	FloorPrice	N			Used to express the floor price of a capped put
201	PutOrCall	N			Used to express option right
1244	FlexibleIndicator	N			Used to indicate if a security has been defined as flexible according to "non-standard" means. Analog to CFICode Standard/Non-standard indicator
1242	FlexProductEligibilityIndicator	N			Used to indicate if a product or group of product supports the creation of flexible securities
997	TimeUnit	N			Used to indicate a time unit for the contract (e.g., days, weeks, months, etc.)
223	CouponRate	N			For Fixed Income.
207	SecurityExchange	N			Can be used to identify the

					security.
970	PositionLimit	N			Position Limit for the instrument.
971	NTPositionLimit	N			Near-term Position Limit for the instrument.
106	Issuer	N			
348	EncodedIssuerLen	N			Must be set if EncodedIssuer field is specified and must immediately precede it.
349	EncodedIssuer	N			Encoded (non-ASCII characters) representation of the Issuer field in the encoded format specified via the MessageEncoding field.
107	SecurityDesc	N			
350	EncodedSecurityDescLen	N			Must be set if EncodedSecurityDesc field is specified and must immediately precede it.
351	EncodedSecurityDesc	N			Encoded (non-ASCII characters) representation of the SecurityDesc field in the encoded format specified via the MessageEncoding field.
component block <SecurityXML>		N			Embedded XML document describing security.
691	Pool	N			Identifies MBS / ABS pool
667	ContractSettlMonth	N			Must be present for MBS/TBA
875	CPProgram	N			The program under which a commercial paper is issued
876	CPRegType	N			The registration type of a commercial paper issuance
component block <EvntGrp>		N			Number of repeating EventType group entries.
873	DatedDate	N			If different from IssueDate
874	InterestAccrualDate	N			If different from IssueDate and DatedDate
component block <InstrumentParties>		N			Used to identify the parties listing a specific instrument
component block <ComplexEvents>		N			
1787	RefTickTableID	N	Add		Spread table code referred by the security or symbol.
<Component Block Instrument>					

7 Appendix A - Data Dictionary

Tag	Field Name	Action	Data type	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
1785	TradSesControl	Add Tag	int	Indicates how control of trading session and subsession transitions are performed. 0 = Automatic (default) 1 = Manual	@TrdgSesCtrl	TradingSessionStatus(35=h) message
1786	TradeVolType	Add Tag	int	Define the type of trade volume applicable for the MinTradeVol(562) and MaxTradeVol(1140) 0 – Number of units (e.g. share, par, currency, contracts) (default) 1 – Number of round lots	@TrdVolTyp	BaseTradingRules component block
1787	RefTickTableID	Add Tag	int	Spread table code referred by the security or symbol.	@RefTickTblID	Instrument component block
562	MinTradeVol	Change description	Qty	The minimum order quantity (as expressed by TradeVolType(1786)) that can be submitted ~~trading volume~~ for a security	@MinTrdVol	
1140	MaxTradeVol	Change description	Qty	The maximum order quantity (as expressed by TradeVolType(1786)) that can be submitted for a security.	@MaxTrdVol	

Tag	Field Name	Action	Data type	Description	FIXML Abbreviation	Add to / Deprecate from Message type or Component block
871	InstrAttribType	Add value	int	Code to represent the type of instrument attribute 1 = Flat (securities pay interest on a current basis but are traded without interest) 2 = Zero coupon …. ….. 29 = Tradeable Indicator 99 = Text. Supply the text of the attribute or disclaimer in the InstrAttribValue (872) field. 34 = Test Instrument 35 = Dummy Instrument	@Typ	

8 Appendix B - Glossary Entries

Term	Definition	Field where used
Test Instrument	Instrument that is tradable but has no effect on the positions, exchange turnover etc.	InstrAttribType
Dummy Instrument	Instrument that is normally halted and is only activated for trading under very special conditions (e.g. temporarily assigned for newly listed instrument). Use of a dummy instrument generally applies to systems that are unable to add reference data for new instruments intraday.	InstrAttribType

9 Appendix C – Abbreviations

Term	Abbreviation
Table	Tbl

10 Appendix D - Usage Examples