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HKEx
orion
TECHNOLOGY INITIATIVES

Field Mapping
between
OCG Interface and OG Interface

Version 1.~~3~~4
~~28~~ 20 ~~June~~ June 201~~3~~4

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1. Document Control

1.1 Change History

Version Number	Issue Date	Section Number	Status
1.0	31 October 2012	All	First Version
1.1	21 December 2012	▪ 3 – Field Mappings	Revised Version
1.2	25 March 2013	▪ 3 – Field Mappings	Revised Version
1.3	28 June 2013	▪ 3 – Field Mappings	Revised Version
1.4	20 June 2014	▪ 3 – Field Mappings	Revised Version

2. Introduction

This document describes all mapping of fields and enumerations, between Orion Central Gateway interface and Open Gateway interface.

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3. Field Mappings

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
1.	Board Lot Indicator	Indicates whether it's a Board Lot order or Odd Lot order	99450	1093 = LotType	Lot Type	
2.	Broker Comment	Free Text to be returned in the Execution Report	1072	58 = Text	Text	
			3072			
			4072			
3.	Broker ID	Broker Number	99032	448 = PartyID		
				447 = PartyIdSource ▪ D = Proprietary/Custom Code		
				452 = PartyRole ▪ 1 = Executing Firm	Submitting Broker ID = Order Owning Broker ID	
				452 = PartyRole ▪ 17 = Contra Firm	Counterparty Broker ID	Used in: ▪ Counter party Broker ID in Execution Report for a trade ▪ Counter party Broker ID in Trade Capture Report
				452 = PartyRole ▪ 36 = Entering Trader Broker ID (in the same firm) on behalf of the order/trade owner Broker ID.	Submitting Broker ID Must be different from Order Owning Broker ID Broker ID (in the same firm) on behalf of the order/trade owner Broker ID.	Generally, the broker sending in OBO cancel request
				452 = PartyRole ▪ 35 = Liquidity Provider	Submitting Broker ID	Used in Party Entitlements Report to convey LP broker and security entitlements
4.	BS Order Reference	Order reference number generated by BSS	4020	11 = ClOrderID	Client Order ID	
5.	BS Trade Reference	Trade reference number generated by BSS.	6020	571 = TradeReportID	Trade Report ID	
6.	BS Transaction Reference	Transaction reference number generated by BSS for the transaction request	9020	11 = ClOrderID	Client Order ID	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
7.	BS User ID	Any value that will be echoed back in the ER	99646	448 = PartyID 447 = PartyIdSource ▪ D = Proprietary/Custom Code 452 = PartyRole ▪ 75 = Location ID	Broker Location ID	
8.	Confirm Flag	Confirm Flag indicating confirmation/override to a Price Warning or a Notional Value Check	99045	18 = ExecInst	Execution Instructions	Client has to explicitly state a check is NOT required. Otherwise, respective validation check will be performed
			▪ B = Both Consideration (notional value) and Price warning check required	If both of the following are absent or false • x = (lower case X) = Ignore Notional Value checks • c = (lower case C) = Ignore Price Validity checks	If both of the following are absent or false • 1 = Ignore Notional Value checks • 0= Ignore Price Validity checks	
			▪ C = Consideration Warning check required	The following must be false: • x = (lower case X) = Ignore Notional Value checks	The following must be false: • 1 = Ignore Notional Value checks	
			▪ P = Price Warning check required	The following must be false: • c = (lower case C) = Ignore Price Validity checks	The following must be false: • 0 = Ignore Price Validity checks	
			▪ N = No check (i.e., none) required	Both of the following must be true. • x = (lower case X) = Ignore Notional Value checks • c = (lower case C) = Ignore Price Validity checks	Both of the following must be true. • 1 = Ignore Notional Value checks • 0 = Ignore Price Validity checks	
9.	Date	YYYYMMDD	99791	60 = TransactTime	Transact Time	YYYYMMDD-HH:MM:SS.sss in UTC
10.	Direct Flag	Internalized (within the same Member Firm) Trade	99063	1115 = OrderCategory ▪ A = Internal Cross Order	Order Category ▪ 1 = Internal Cross Order	
11.	Filled Quantity	Total traded quantity for an order	99078	14 = CumQty	Cumulative Quantity	
12.	Fill Or Kill	Time In Force attribute FOK	99007	59 = TimeInForce ▪ 4 = Fill or Kill	Time In Force ▪ 4 = Fill or Kill	FOK is not allowed for AMS Special Limit Order
13.	Market Code	AMS Market Code		1300 = MarketSegmentID	Market Segment ID	
14.	Maximum Spread Obligation			1775 = Entitlement Type ▪ 1 = Make Market	Entitlement Type ▪ 1 = Make Market	Used in Party Entitlement Report to convey RT obligations
				1778 = EntitlementAttribType	Entitlement Attrib Type	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
				1779 = EntitlementAttribDatatype	Entitlement Attrib	
				1780 = EntitlementAttribValue	Entitlement Attrib Value	
15.	Message Number	Message Number indicating error or warning	4076	Use one of the enumerations in the following:	Use one of the existing enumerations in the following:	
				102 = CxlRejReason	▪ Amend Reject Code	
					▪ Cancel Reject Code	
				103 = OrdRejReason	▪ Order Reject Code	
				300 = QuoteRejectReason	▪ Quote Reject Code	
				380 = BusinessRejectReason	▪ Business Reject Code	
				532 = MassCancelRejectReason	▪ Mass Cancel Reject Code	
				751 = TradeReportRejectReason	▪ Trade Report Reject Code	
16.	Message Text	Carries error / warning message text	3076	1328 = RejectText 58 = Text Applicable only in Order Mass Cancel Report	Reason	
17.	Minimum Volume Obligation			1775 = Entitlement Type ▪ 1 = Make Markets	Entitlement Type ▪ 1 = Make Markets	Used in Party Entitlement Report to convey RT obligations
				1778 = EntitlementAttribType	Entitlement Attrib Type	
				1779 = EntitlementAttribDatatype	Entitlement Attrib Datatype	
				1780 = EntitlementAttribValue	Entitlement Attrib Value	
18.	Number of Days to Password Expiry		99864	58 = Text Applicable only in 35=A message if this message is sent by the OCG.	Text Applicable only in Logon (5) message if this message is sent by the OCG.	
19.	Order Outstanding Quantity	Leaves Quantity	99569	151 = LeavesQty	Leaves Quantity	
20.	Order Price	Order Price	1032L	44 = Price	Order Price	
21.	Order Quantity	Total Order Quantity	3035A	38 = OrderQty	Order Quantity	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
22.	Order Registered Date		99794	60 = TransactTime	Transact Time	YYYYMMDD-HH:MM:SS.sss in UTC
23.	Order Registered Time		99033	60 = TransactTime	Transact Time	YYYYMMDD-HH:MM:SS.sss in UTC
24.	Order Sequence Number	Order ID	0C20	37 = OrderID	Order ID	
25.	Order Side	Side	99191	54 = Side	Side	
			▪ A = Ask	▪ 2 = Sell	▪ 2 = Sell	
			▪ B = Bid	▪ 1 = Buy	▪ 1 = Buy	
26.	Order Status	Current Status of the Order	99190	39 = OrdStatus	Order Status	
			▪ O in UOI	▪ 0 = New	▪ 0 = New	
			▪ M in UOI	▪ 0 = New	▪ 0 = New	
			▪ O in UOU	▪ 0 = New if CumQty = 0 ▪ 1 = Partially Filled if CumQty > 0	▪ 0 = New if Executed Qty = 0 ▪ 1 = Partially Filled if Executed Qty > 0	
			▪ C in UOI	▪ 4 = Cancelled ▪ C = Expired	▪ 4 = Cancelled ▪ 12 = Expired	
			▪ O in UTU	▪ 1 = Partially filled	▪ 1 = Partially filled	
			▪ F in UTU	▪ 2 = Filled	▪ 2 = Filled	
			▪ X in UOR	▪ 8 = Rejected	▪ 8 = Rejected	
27.	Order Type	Order Type	99192			
			▪ L = Limit	40 = OrdType ▪ 2 = Limit	Order Type ▪ 2 = Limit	
				1090 = MaxPriceLevels ▪ 1 = 1 level (i.e., Best)	Max Price Levels ▪ 1 = 1 level (i.e., Best)	
			▪ E = Enhanced Limit	40 = OrdType ▪ 2 = Limit	Order Type ▪ 2 = Limit	
			▪ S = Special Limit	40 = OrdType ▪ 2 = Limit	Order Type ▪ 2 = Limit	
				59 = TimeInForce ▪ 3 = IOC	Time in Force ▪ 3 = IOC	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
			▪ A = At Auction	40 = OrdType ▪ 1 = Market	Order Type ▪ 1 = Market	
				59 = TimeInForce ▪ 9 = At Crossing	Time In Force ▪ 9 = At Cross	
			▪ I = Auction Limit	40 = OrdType ▪ 2 = Limit	Order Type ▪ 2 = Limit	
				59 = TimeInForce ▪ 9 = At Crossing	Time In Force ▪ 9 = At Cross	
			▪ Q = Quote	40 = OrdType ▪ 2 = Limit	Order Type ▪ 2 = Limit	
				1090 = MaxPriceLevels ▪ 1 = 1 level (i.e., Best)	Max Price Levels ▪ 1 = 1 level (i.e., Best)	
28.	Public Trade Type	Trade Type reported to / assigned by the	99223			Refer to Trade Type below
29.	RT Flag	Is this broker a Liquidity Provider (LP)?	99355	452 = PartyRole ▪ 35 = Liquidity Provider Used in Party Entitlement Report (35=CV) to indicate a Broker ID in PartyDetailGrp as a market maker	Entitlement Type = 1 Used in Party Entitlement Report	
30.	RT Security Code	Instrument for which Liquidity Provider is entitled to	2035B	1535 = Instrument Scope Operator ▪ 1 = Include	Instrument Scope Operator ▪ 1 = Include	Used in Party Entitlement Report (35=CV) to convey RT obligations
				1536 = Instrument Scope Symbol	Instrument Scope Symbol	RT Security Code
31.	Security Code	Symbol/Instrument/Security ID as assigned by the Exchange	2035B	48 = SecurityID	Security ID	
32.	Settlement Type	Applicable to off-exchange trades only.	99247	577 = Clearing Instruction	Clearing Instruction	
			▪ Blank = Normal	▪ 0 = Process normally	▪ 0 = Process normally	
			▪ I = Isolate	▪ 1 = Exclude from all netting	▪ 1 = Exclude from all netting	
			▪ B = Buy In	▪ 14 = Buy In	▪ 14 = Buy In	
33.	Time	HHMMSS	99273	60 = TransactTime	Transact Time	
34.	Trade Class Origin	Origin Indicator	99296	528 = OrdeCapacity	Order Capacity	
			▪ A = Agency	▪ A = Agency	▪ 1 = Agency	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
			▪ P = Principal	▪ P = Principal	▪ 2 = Principal	
			▪ R = RT			Deprecated in OCG interface.
35.	Trade Class Hedge	Hedge Indicator	99295			Deprecated in OCG interface.
36.	Trade Class Short Sell	Short Sell Indicator	99297			
			▪ N = Non Short Sell	Default value if the tag is not present	Default value if the field is not present	
			▪ Y = Short Sell	54 = Side ▪ 5 = Sell Short	Side ▪ 5 = Sell Short	
			▪ A = Arbitrage	54 = Side ▪ 5 = Sell Short	Side ▪ 5 = Sell Short	
				529 = Order Restrictions ▪ 2 = Index Arbitrage	Order Restrictions ▪ 2 = Index Arbitrage	
			▪ C = Cover	54 = Side ▪ 1 = Buy	Side ▪ 1 = Buy	
				77 = PositionEffect ▪ C = Close	Position Effect ▪ 1 = Close	
			▪ F = SFMM	54 = Side ▪ 5 = Sell Short	Side ▪ 5 = Sell Short	
				529 = Order Restrictions ▪ 6 = Acting as market maker or specialist in underlying security of a derivative	Order Restrictions ▪ 6 = Acting as market maker or specialist in underlying security of a derivative	
			▪ M = Market Maker	54 = Side ▪ 5 = Sell Short	Side ▪ 5 = Sell Short	
				529 = Order Restrictions ▪ 5 = Acting as market maker or specialist in security	Order Restrictions ▪ 5 = Acting as market maker or specialist in security	
37.	Trade Indicator	Trade type used while reporting an off-exchange (i.e., manual) trade	99301	828 = TrdType	Trade Type	
			▪ L= Odd Lot/Special Lot Trade	▪ 102 = Odd lot trade	▪ 102 = Odd lot trade	
			▪ M = Manual Trade	▪ 22 = Privately negotiated trade	▪ 22 = Privately negotiated trade	
			▪ R = Previous Day's Trade	▪ 4 = Late trade	▪ 4 = Late trade	
			▪ V = Overseas Trade	▪ 104 = Overseas trade	▪ 104 = Overseas trade	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
38.	Trade Price	Traded Price	2032L	31 = LastPx	Execution Price	
39.	Trade Quantity	Traded Quantity	4035A	32 = LastQty	Execution Quantity	
40.	Trade Reference Group	AMS Trade ID	99659	880 = TrdMatchID	Trade Match ID	Applicable to: ▪ Auto-matched trade, and ▪ Semi-auto matched trades – for the side that refers to an odd lot/special lot order
				1003 = TradeID	Trade ID	Applicable to Off-Exchange Trade & Semi-auto matched trades
41.	Trade Side	Trade Side	99453	53 = Side	Side	
			▪ B = Buy	▪ 1 = Buy	▪ 1 = Buy	
			▪ S = Sell	▪ 2 = Sell	▪ 2 = Sell	
42.	Trade Type	Exchange assigned trade type	99300			
			▪ A = Automatched	574 = Match Type ▪ 4 = Auto Match	Match Type ▪ 4 = Auto Match	
			▪ E = Semi Automatched Special Lot	828 = TrdType ▪ 102 = Odd lot trade 5681 = Exchange Trade Type ▪ E = Special Lot – Semi Auto	Trade Type ▪ 102 = Odd lot trade Exchange Trade Type ▪ E = Special Lot – Semi Auto	
			▪ M = Manual Normal Price	5681 = Exchange Trade Type ▪ M = Manual Trade	Exchange Trade Type ▪ M = Manual Trade	FIX tag 5681 is already defined in the custom tag repository of FPL
			▪ O = Semi-auto-matched odd lot trade	828 = TrdType ▪ 102 = Odd lot trade 5681 = Exchange Trade Type ▪ O = Odd Lot – Semi Auto	Trade Type ▪ 102 = Odd lot trade Exchange Trade Type ▪ O = Odd Lot – Semi Auto	
			▪ P = Odd Lot Trade	5681 = Exchange Trade Type ▪ P = Odd Lot Trade	Exchange Trade Type ▪ P = Odd Lot Trade	
			▪ Q = Special Lot Trade	5681 = Exchange Trade Type ▪ Q = Special Lot Trade	Exchange Trade Type ▪ Q = Special Lot Trade	
			▪ R = Previous Day's Trade	5681 = Exchange Trade Type ▪ R = Previous Day's Trade	Exchange Trade Type ▪ R = Previous Day's Trade	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
			▪ S = Manual Special Price	5681 = Exchange Trade Type ▪ S = Manual – Non Standard Price Trade	Exchange Trade Type ▪ S = Manual – Non Standard Price Trade	
			▪ U = Auction Matched Trade	574 = Match Type ▪ 5 = Cross Auction	Match Type ▪ 5 = Cross Auction	
			▪ V = Overseas	5681 =Exchange Trade Type ▪ V = Overseas Trade	Exchange Trade Type ▪ V = Overseas Trade	