



**Hong Kong Exchanges and Clearing Limited**  
**香港交易及結算所有限公司**



---

# **Field Mapping between OCG Interface and OG Interface**

---

Version 1.4  
20 June 2014

---

## Table of Contents

<b>1. DOCUMENT CONTROL</b> .....	<b>3</b>
1.1 CHANGE HISTORY .....	3
<b>2. INTRODUCTION</b> .....	<b>4</b>
<b>3. FIELD MAPPINGS</b> .....	<b>5</b>

## 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.

---

HKEx and/or its subsidiaries endeavour to ensure the accuracy and reliability of the information provided, but do not guarantee its accuracy and reliability and accept no liability (whether in tort or contract or otherwise) for any loss or damage arising from any inaccuracy or omission or from any decision, action or non-action based on or in reliance upon information contained in this document.

No part of this document may be copied, distributed, transmitted, transcribed, stored in a retrieval system, translated into any human or computer language, or disclosed to third parties without written permission from HKEx.

HKEx reserves the right to amend any details in this document at any time, without notice.

### 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 3072 4072	58 = Text	Text	
3.	Broker ID	Broker Number	99032	448 = PartyID 447 = PartyIDSource ▪ D = Proprietary/Custom Code 452 = PartyRole ▪ 1 = Executing Firm 452 = PartyRole ▪ 17 = Contra Firm 452 = PartyRole ▪ 36 = Entering Trader Broker ID (in the same firm) on behalf of the order/trade owner Broker ID. 452 = PartyRole ▪ 35 = Liquidity Provider	Submitting Broker ID = Order Owning Broker ID Counterparty 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. Submitting Broker ID	Used in: ▪ Counter party Broker ID in Execution Report for a trade ▪ Counter party Broker ID in Trade Capture Report Generally, the broker sending in OBO cancel request 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 1778 = EntitlementAttribType	Entitlement Type ▪ 1 = Make Market Entitlement Attrib Type	Used in Party Entitlement Report to convey RT obligations

#	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	<ul style="list-style-type: none"> <li>▪ Amend Reject Code</li> <li>▪ Cancel Reject Code</li> </ul>	
				103 = OrdRejReason	<ul style="list-style-type: none"> <li>▪ Order Reject Code</li> </ul>	
				300 = QuoteRejectReason	<ul style="list-style-type: none"> <li>▪ Quote Reject Code</li> </ul>	
				380 = BusinessRejectReason	<ul style="list-style-type: none"> <li>▪ Business Reject Code</li> </ul>	
				532 = MassCancelRejectReason	<ul style="list-style-type: none"> <li>▪ Mass Cancel Reject Code</li> </ul>	
				751 = TradeReportRejectReason	<ul style="list-style-type: none"> <li>▪ Trade Report Reject Code</li> </ul>	
16.	Message Text	Carries error / warning message text	3076	1328 = RejectText	Reason	
				58 = Text Applicable only in Order Mass Cancel Report		
17.	Minimum Volume Obligation			1775 = Entitlement Type <ul style="list-style-type: none"> <li>▪ 1 = Make Markets</li> </ul>	Entitlement Type <ul style="list-style-type: none"> <li>▪ 1 = Make Markets</li> </ul>	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
			<ul style="list-style-type: none"> <li>A = At Auction</li> </ul>	40 = OrdType <ul style="list-style-type: none"> <li>1 = Market</li> </ul> 59 = TimeInForce <ul style="list-style-type: none"> <li>9 = At Crossing</li> </ul>	Order Type <ul style="list-style-type: none"> <li>1 = Market</li> </ul> Time In Force <ul style="list-style-type: none"> <li>9 = At Cross</li> </ul>	
			<ul style="list-style-type: none"> <li>I = Auction Limit</li> </ul>	40 = OrdType <ul style="list-style-type: none"> <li>2 = Limit</li> </ul> 59 = TimeInForce <ul style="list-style-type: none"> <li>9 = At Crossing</li> </ul>	Order Type <ul style="list-style-type: none"> <li>2 = Limit</li> </ul> Time In Force <ul style="list-style-type: none"> <li>9 = At Cross</li> </ul>	
			<ul style="list-style-type: none"> <li>Q = Quote</li> </ul>	40 = OrdType <ul style="list-style-type: none"> <li>2 = Limit</li> </ul> 1090 = MaxPriceLevels <ul style="list-style-type: none"> <li>1 = 1 level (i.e., Best)</li> </ul>	Order Type <ul style="list-style-type: none"> <li>2 = Limit</li> </ul> Max Price Levels <ul style="list-style-type: none"> <li>1 = 1 level (i.e., Best)</li> </ul>	
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 <ul style="list-style-type: none"> <li>35 = Liquidity Provider</li> </ul> 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 <ul style="list-style-type: none"> <li>1 = Include</li> </ul> 1536 = Instrument Scope Symbol	Instrument Scope Operator <ul style="list-style-type: none"> <li>1 = Include</li> </ul> Instrument Scope Symbol	Used in Party Entitlement Report (35=CV) to convey RT obligations  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 <ul style="list-style-type: none"> <li>Blank = Normal</li> <li>I = Isolate</li> <li>B = Buy In</li> </ul>	Clearing Instruction <ul style="list-style-type: none"> <li>0 = Process normally</li> <li>1 = Exclude from all netting</li> <li>14 = Buy In</li> </ul>	
33.	Time	HHMMSS	99273	60 = TransactTime	Transact Time	
34.	Trade Class Origin	Origin Indicator	99296	528 = OrdeCapacity <ul style="list-style-type: none"> <li>A = Agency</li> </ul>	Order Capacity <ul style="list-style-type: none"> <li>1 = Agency</li> </ul>	

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
			<ul style="list-style-type: none"> <li>P = Principal</li> <li>R = RT</li> </ul>	<ul style="list-style-type: none"> <li>P = Principal</li> </ul>	<ul style="list-style-type: none"> <li>2 = Principal</li> </ul>	Deprecated in OCG interface.
35.	Trade Class Hedge	Hedge Indicator	99295			Deprecated in OCG interface.
36.	Trade Class Short Sell	Short Sell Indicator	99297			
			<ul style="list-style-type: none"> <li>N = Non Short Sell</li> <li>Y = Short Sell</li> <li>A = Arbitrage</li> <li>C = Cover</li> <li>F = SFMM</li> <li>M = Market Maker</li> </ul>	<ul style="list-style-type: none"> <li>Default value if the tag is not present</li> <li>54 = Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>54 = Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>529 = Order Restrictions <ul style="list-style-type: none"> <li>2 = Index Arbitrage</li> </ul> </li> <li>54 = Side <ul style="list-style-type: none"> <li>1 = Buy</li> </ul> </li> <li>77 = PositionEffect <ul style="list-style-type: none"> <li>C = Close</li> </ul> </li> <li>54 = Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>529 = Order Restrictions <ul style="list-style-type: none"> <li>6 = Acting as market maker or specialist in underlying security of a derivative</li> </ul> </li> <li>54 = Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>529 = Order Restrictions <ul style="list-style-type: none"> <li>5 = Acting as market maker or specialist in security</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Default value if the field is not present</li> <li>Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>Order Restrictions <ul style="list-style-type: none"> <li>2 = Index Arbitrage</li> </ul> </li> <li>Side <ul style="list-style-type: none"> <li>1 = Buy</li> </ul> </li> <li>Position Effect <ul style="list-style-type: none"> <li>1 = Close</li> </ul> </li> <li>Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>Order Restrictions <ul style="list-style-type: none"> <li>6 = Acting as market maker or specialist in underlying security of a derivative</li> </ul> </li> <li>Side <ul style="list-style-type: none"> <li>5 = Sell Short</li> </ul> </li> <li>Order Restrictions <ul style="list-style-type: none"> <li>5 = Acting as market maker or specialist in security</li> </ul> </li> </ul>	
37.	Trade Indicator	Trade type used while reporting an off-exchange (i.e., manual) trade	99301	828 = TrdType	Trade Type	
			<ul style="list-style-type: none"> <li>L= Odd Lot/Special Lot Trade</li> <li>M = Manual Trade</li> <li>R = Previous Day's Trade</li> <li>V = Overseas Trade</li> </ul>	<ul style="list-style-type: none"> <li>102 = Odd lot trade</li> <li>22 = Privately negotiated trade</li> <li>4 = Late trade</li> <li>104 = Overseas trade</li> </ul>	<ul style="list-style-type: none"> <li>102 = Odd lot trade</li> <li>22 = Privately negotiated trade</li> <li>4 = Late trade</li> <li>104 = Overseas trade</li> </ul>	

#	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: <ul style="list-style-type: none"> <li>Auto-matched trade, and</li> <li>Semi-auto matched trades – for the side that refers to an odd lot/special lot order</li> </ul>	
				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	Match Type	
					▪ 4 = Auto Match	▪ 4 = Auto Match	
				▪ E = Semi Automatched Special Lot	828 = TrdType	Trade Type	
					▪ 102 = Odd lot trade	▪ 102 = Odd lot trade	
					5681 = Exchange Trade Type	Exchange Trade Type	
					▪ E = Special Lot – Semi Auto	▪ E = Special Lot – Semi Auto	
				▪ M = Manual Normal Price	5681 = Exchange Trade Type	Exchange Trade Type	FIX tag 5681 is already defined in the custom tag repository of FPL
					▪ M = Manual Trade	▪ M = Manual Trade	
▪ O = Semi-auto-matched odd lot trade	828 = TrdType	Trade Type					
	▪ 102 = Odd lot trade	▪ 102 = Odd lot trade					
	5681 = Exchange Trade Type	Exchange Trade Type					
	▪ O = Odd Lot – Semi Auto	▪ O = Odd Lot – Semi Auto					
▪ P = Odd Lot Trade	5681 = Exchange Trade Type	Exchange Trade Type					
	▪ P = Odd Lot Trade	▪ P = Odd Lot Trade					
▪ Q = Special Lot Trade	5681 = Exchange Trade Type	Exchange Trade Type					
	▪ Q = Special Lot Trade	▪ Q = Special Lot Trade					
▪ R = Previous Day's Trade	5681 = Exchange Trade Type	Exchange Trade Type					
	▪ R = Previous Day's Trade	▪ R = Previous Day's Trade					

#	Name	Description/ Contents	OG – BSS Open Message Tag	OCG FIX Tag / Enum Description	OCG Binary Field & Enum	Remarks
			<ul style="list-style-type: none"> <li>S = Manual Special Price</li> </ul>	5681 = Exchange Trade Type <ul style="list-style-type: none"> <li>S = Manual – Non Standard Price Trade</li> </ul>	Exchange Trade Type <ul style="list-style-type: none"> <li>S = Manual – Non Standard Price Trade</li> </ul>	
			<ul style="list-style-type: none"> <li>U = Auction Matched Trade</li> </ul>	574 = Match Type <ul style="list-style-type: none"> <li>5 = Cross Auction</li> </ul>	Match Type <ul style="list-style-type: none"> <li>5 = Cross Auction</li> </ul>	
			<ul style="list-style-type: none"> <li>V = Overseas</li> </ul>	5681 = Exchange Trade Type <ul style="list-style-type: none"> <li>V = Overseas Trade</li> </ul>	Exchange Trade Type <ul style="list-style-type: none"> <li>V = Overseas Trade</li> </ul>	