

**BCS FIX 4.4 PROTOCOL SPECIFICATION  
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# Change Log

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Date	Version	Description	Author
12-20-2010	1.1.0	Initial version.	Eugenio Contreras
09-03-2011	1.1.1	Added: <ul style="list-style-type: none"> <li>Field 19 (ExecRefID) in Execution Report message.</li> <li>Value 6 (Good Till Date) in tag 59 (TimeInForce).</li> </ul> Modified: <ul style="list-style-type: none"> <li>Changed SecurityExchange field (tag 207) requirement from 'N' to 'C'. The description changed also, stating that the tag is required for application level messages.</li> </ul>	Ricardo Núñez
17-06-2011	1.1.2	Added: <ul style="list-style-type: none"> <li>Field 15 (Currency) in Execution Report message.</li> </ul>	Ricardo Núñez
15-05-2012	1.1.3	Added: <ul style="list-style-type: none"> <li>Value 9 (Fund Manager Client ID) to Parties component.</li> </ul>	Ricardo Núñez
21-08-2012	1.1.4	Added: <ul style="list-style-type: none"> <li>In Execution Report Message:               <ul style="list-style-type: none"> <li>GrossTradeAmount (tag 381).</li> </ul> </li> </ul>	Ricardo Núñez
30-05-2013	1.1.5	Modified: <ul style="list-style-type: none"> <li>Field 151 (LeavesQty) description in Execution Report message.</li> </ul>	Ricardo Núñez
20-10-2014	1.1.6	Added: <ul style="list-style-type: none"> <li>Chapter on high-availability and reliability features.</li> </ul>	Alberto Hormazabal

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# 1. ABOUT THIS DOCUMENT

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## 1.1 Introduction

Bolsa de Comercio de Santiago (BCS) provides a trading interface based on the FIX Protocol 4.4 version. This interface is named BCS Trading Gateway, which offers direct market access (DMA) based on the Financial Information Exchange protocol (FIX).

FIX is an open technical specification for electronic communication of trade-related messages. This connection allows electronic trading and real-time reception of market information. For further details refer [www.fixprotocol.org](http://www.fixprotocol.org).

This document contains detailed information for connecting to BCS Trading Gateway interface, which includes the description of the FIX messages implemented by the BCS, also includes diagrams for each FIX message type and its behavior. Finally in "BCS Fix 4.4 - Equity Market Protocol Specification v1.9.8 (dma) - Appendix A" there is a complete reference of all the order types supported by the BCS.

## 1.2 Intended Audience

This document is directed to BCS members, customers, extranet providers and service bureaus intending to implement access to the BCS Trading Gateway interface. It assumes previously knowledge of FIX protocol.

## 1.3 Scope

Bolsa de Comercio de Santiago has currently available DMA access only for its equity market, in the near future, BCS will incorporate fixed income and derivatives markets to its FIX platform.

## 1.4 Terminology

Term	Definition
BCS	Bolsa de Comercio de Santiago.
BCS Trading Gateway	Bolsa de Comercio de Santiago's application for accessing directly to its electronic trading platform.
Broker	A broker is an individual or firm who acts as an intermediary between a buyer and seller.
Brokerage	Used interchangeably with broker when referring to a firm rather than an individual. Also called brokerage house or brokerage firm.
Counterparty	Party to a trade.
DMA	Direct Market Access – functionality that allows end-customers, such as hedge funds or investment banks, to directly access the exchange electronically without the need to go over physical broker firm infrastructure.
Entering Firm	Broker or firm which originates an order to the BCS. This firms could be brokers or local and external agents from a DMA provider or order routing solution.
Entering Trader	Individual usually identified by a trading badge number or initials who belongs to an entering firm.
Executing Firm	Identifies local broker that could represent an external agent.
FIX	Financial Information Exchange Protocol.
Instrument	Financial capital in a readily tradable form.
Security	Stock that has been authorized for trading.
Market Data	A collective term for bids, offers, last trades, volume statistics, indexes and other trading information used by the market to evaluate trading opportunities.
Vendor	Institution that sells services to its clients. In the context of this document, a vendor is an institution that sells access to market data feeds and order management interfaces to an Exchange.

## 2. Contacts

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### 2.1 Commercial Information

For issues regarding sales and contractual information please refer to:

Mr. Felipe Urrutia

Phone: 56-2-3993826

Email: furrutia@bolsadesantiago.com

Mr. Alexander Nannig

Phone: 56-2-23993884

Email: anannig@bolsadesantiago.com

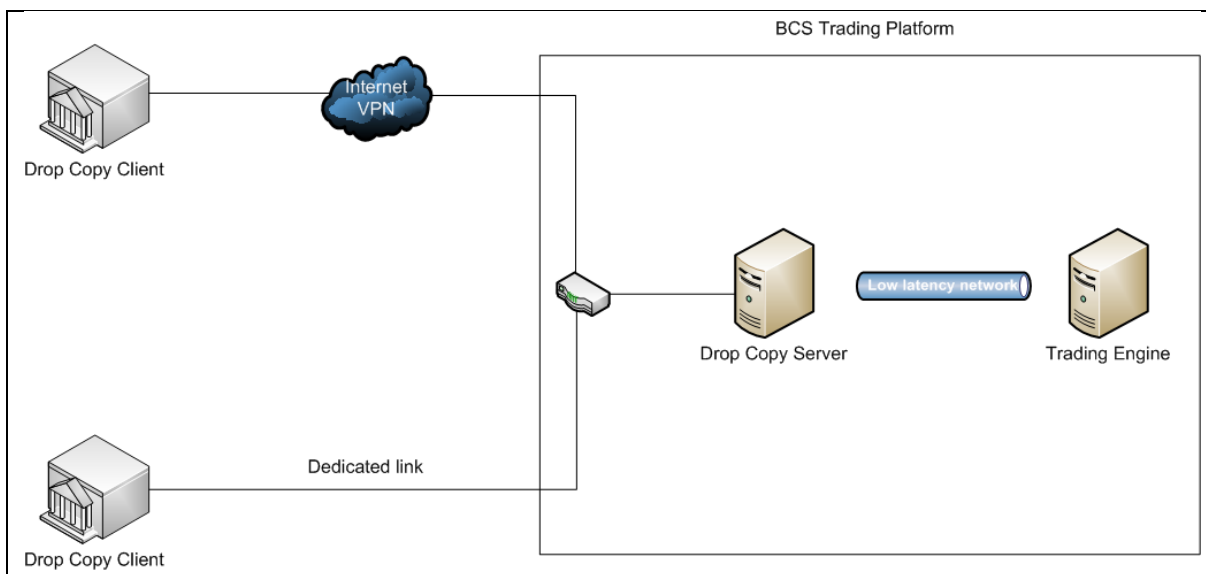
### 2.2 Help Desk

For issues regarding production environment please refer to:

Phone: 56-2-3993110

Email: sac@bolsadesantiago.com

## 3. Network Connectivity to BCS Trading Gateway



BCS supports two network connectivity mechanisms:

- Direct leased line.
- Internet VPN access.

### 3.1 Direct Leased Line

Clients may contract a direct leased line from a service provider to connect to BCS with a dedicated line. Please contact BCS for details on setting up this type of connectivity. It may be used for trading or for receiving market data.

### 3.2 Internet VPN access

Clients may also connect to BCS via the Internet implementing a VPN tunnel, which reduces cost but does not provide contingency. This type of connection may be used for the certification process of all trading features, including market data, order management and order routing, even though in the production environment its recommendable to connect via direct leased line.



## 4. Reliability and High Availability

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### 4.1 Message feed reliability

All BCS FIX services for order entry and drop copy follow the FIX Protocol guidelines on message sequence conservation and recovery. Consequently, this service supports the storage of all missed messages in the case a FIX session is interrupted and will resend all pending messages when the interrupted session is reestablished. This mechanism is only available when a session has been previously established during the current trading session.

### 4.2 Late Join

In the case the first FIX session is established after the trading session has started, the service will automatically execute a Late Join procedure, delivering all missed messages from the start of the trading session to the moment of the first FIX session establishment. After this procedure the service will continue its normal operation delivering all upcoming messages on real time.

### 4.3 High Availability

The Drop Copy service is designed with an active-passive high-availability scheme. In this scheme, one server is attending clients, and the second server is waiting in a passive state. Whenever the primary server is lost, the secondary server will automatically start and recover all FIX message sequences from a shared message store in order to keep the current feeds in the same state as when the primary server failed. Clients will have to reconnect to a secondary TCP port which is provided during the service certification and set-up.

## 5. Supported FIX Message Formats

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### 5.1 Message Summary

Session Messages	MsgType	Sent by BCS	Received by BCS
Heartbeat	0	•	•
Test Request	1	•	•
Resend Request	2	•	•
Reject	3	•	•
Sequence Reset	4	•	•
Logout	5	•	•
Logon	A	•	•

Variable Income Trading			
Application Messages	MsgType	Sent by BCS	Received by BCS
Execution Report	8	•	

## 5.2 Standard Header

Tag	Field Name	Req' d	Data type	Comment
8	BeginString	Y	String	"FIX.4.4".
9	BodyLength	Y	Int	(Always unencrypted, must be second field in message).
35	MsgType	Y	String	(Always unencrypted, must be third field in message).
34	MsgSeqNum	Y	Int	Message sequence number.
49	SenderCompID	Y	String	Please contact BCS for appropriate CompID assignment.
52	SendingTime	Y	UTCTimestamp	Time of message transmission (always expressed in UTC (Universal Time Coordinated, also known as "GMT").
56	TargetCompID	Y	String	Please contact BCS for appropriate CompID assignment.
50	SenderSubID	N	String	It may be used by the client for it to tag the incoming messages.
57	TargetSubID	N	String	BCS echoes back the incoming SenderSubID.
43	PossDupFlag	N	Boolean	Always required for retransmitted messages, whether prompted by the sending system or as the result of a resend request.
97	PossResend	N	Boolean	Required when message may be duplicate of another message sent under a different sequence number.

## 5.3 Standard Trailer

Tag	Field Name	Req' d	Data type	Comment
10	Checksum	Y	Int	(Always unencrypted, always last field in message)

## 5.4 Counter Party Identification

FIX connections are established based on “comp IDs” – fields that identify, on the session level, the counterparty in the connection. These IDs do not convey trader or firm information. They are used only on the FIX session level. FIX comp IDs and IP addresses for connection are assigned by BCS, please contact SAC@bolsadesantiago.com.

For direct connection from client to BCS:

	Sender CompID	SenderSubID (optional)	Target CompID	TargetSubID (optional)
Client sends directly to BCS	Client	Client	BCS	BCS
BCS sends directly to Client	BCS	BCS	Client	Client

For order routing solutions:

	SenderCompID	OnBehalfOfCompID	TargetCompID	DeliverToCompID
Client sends to other exchange via BCS				
Client sends to BCS	Client		BCS	other exchange
BCS sends to other exchange	BCS	Client	other exchange	
other exchange responds to Client via BCS				
other exchange sends to BCS	other exchange		BCS	Client
BCS sends to Client	BCS	other exchange	Client	

## 5.5 Session Messages

### 5.5.1 Heartbeat (MsgType = 0)

The Heartbeat monitors the status of the communication link and identifies when the last of a string of messages was not received.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 0
112	TestReqID	N	String	Required when the heartbeat is the result of a Test Request message.
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.2 Test Request (MsgType = 1)

The FIX Test Request message requests a heartbeat from the counterparty. The Test Request message checks sequence numbers or verifies the communication line status. The opposite application responds to the Test Request with a Heartbeat message, echoing the TestReqID (112) tag contained in the request.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType = 1
112	TestReqID	Y	String	Identifier included in Test Request message to be returned in resulting Heartbeat
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.3 Resend Request (MsgType = 2)

The resend request is sent by the receiving application to initiate message retransmission. This function is used if a gap in sequence numbers is detected, if the receiving application lost a message, or as a part of the initialization process.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 2
7	BeginSeqNo	Y	Int	Message sequence number of first message in range to be resent
16	EndSeqNo	Y	Int	Message sequence number of last message in range to be resent. If request is for a single message BeginSeqNo = EndSeqNo. If request is for all messages subsequent to a particular message, EndSeqNo = "0" (representing infinity).
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.4 Reject (MsgType = 3)

The FIX Reject message should be issued when a message is received but cannot be properly processed due to a session-level rule violation.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 3
45	RefSeqNum	Y	Int	MsgSeqNum of rejected message
371	RefTagID	N	Int	The tag number of the FIX field being referenced.
372	RefMsgType	N	String	The MsgType of the FIX message being referenced.
373	SessionRejectReason	Y	Int	Code to identify reason for a session-level Reject message. Values issued by BCS: 0 = Invalid tag number 1 = Required tag missing 2 = Tag not defined for this message type 3 = Undefined Tag 4 = Tag specified without a value 5 = Value is incorrect (out of range) for this tag 6 = Incorrect data format for value 9 = CompID problem 10 = SendingTime accuracy problem 11 = Invalid MsgType 13 = Tag appears more than once 14 = Tag specified out of required order 15 = Repeating group fields out of order 16 = Incorrect NumInGroup count for repeating group 17 = Non "data" value includes field delimiter (SOH character) 99 = Other
58	Text	N	String	Message to explain reason for rejection.
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.5 Sequence Reset (MsgType = 4)

The Sequence Reset message has two modes: Gap Fill mode and Reset mode.

Gap Fill mode is used in response to a FIX Resend Request when one or more messages must be skipped.

Reset mode involves specifying an arbitrarily higher new sequence number to be expected by the receiver of the FIX Sequence Reset message, and is used to reestablish a FIX session after an unrecoverable application failure.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 4
123	GapFillFlag	N	Boolean	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent. Valid values: Y = Gap Fill message, MsgSeqNum field valid N = Sequence Reset, ignore MsgSeqNum
36	NewSeqNo	Y	Int	New sequence number.
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.6 Logout (MsgType = 5)

The FIX Logout message initiates or confirms the termination of a FIX session. Disconnection without the exchange of Logout messages should be interpreted as an abnormal condition.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 5
58	Text	N	String	Explanation for Logout reason (if any).
	<b>[Standard Trailer]</b>	Y		See section 5.3

### 5.5.7 Logon (MsgType =A)

The FIX Logon message authenticates a user establishing a connection to a remote system. The Logon message must be the first message sent by the application requesting to initiate a FIX session.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= A
98	EncryptedMethod	Y	Int	Must be 0.
108	HeartBtInt	Y	Int	Must be 30.
95	RawDataLength	N	Length	Required. For more details on authentication data, please contact BCS.
96	RawData	N	Data	Required. For more details on authentication data, please contact BCS.
141	ResetSeqNumFlag	N	Boolean	Indicates that the both sides of the FIX session should reset sequence numbers. Valid values are: N=No Y=Yes
789	NextExpectedMsgSeq Num	N	Int	Next expected MsgSeqNum value to be received.
464	TestMessageIndicator	N	Boolean	Sent only by BCS.
	<b>[Standard Trailer]</b>	Y		See section 5.3

## 5.6 Application Level Messages

### 5.6.1 Component Blocks

#### 5.6.1.1 Instrument Identification

Instruments are uniquely identified using the block of tags below.

Tag	Field Name	Req'd	Data type	Comment
55	Symbol	Y	String	The Symbol tag contains the mnemonic of the security. It is defined by BCS.
48	SecurityID	N	String	Security ID defined by ISIN.
22	SecurityIDSource	C	String	Conditionally required if the SecurityID field is set. Valid values: 4 = ISIN number
460	Product	C	Int	Indicates the type of product the security is associated with. If it is an index, its value is 7.
167	SecurityType	N	String	The market ID of the security. Valid values: CS = Common Stock CFI = Investment Funds Cuotas Fondos Inversion (CFI)
206	OptAttribute	N	Char	This tag is used only in the MarketDataSubscription.  If it is present indicates a special behavior: <ul style="list-style-type: none"> <li>'A' indicates all the related books of a Symbol.</li> </ul>
207	SecurityExchange	Y	String	<b>Required</b> in New Order Single, Order Cancel Request and Order Cancel/Replace Request messages.  Indicates the security exchange of the instrument. Valid values are: XSGO = BCS OFS = Offshore If not present, means XSGO.
107	SecurityDesc	N	String	Security description.



### 5.6.1.2 Order Quantity Data (OrderQtyData)

Block component with quantity ordered.

Tag	Field Name	Req'd	Data type	Comment
38	OrderQty	Y	Qty	Quantity ordered. This represents the number of shares for equities or par, face or nominal value for FI instruments.

### 5.6.1.3 Parties

Repeating group block component containing party identification data (Executing Firm, entering Firm, entering trader, etc).

Tag	Field Name	Req'd	Data type	Comment	
453	NoPartyID	Y	NumInGroup	Repeating group below should contain the firm identification of the parties.	
>>	448	PartyID	Y	String	Used to identify the Party.
>>	447	PartyIDSource	Y	Char	Identifies class or source of the PartyID. Value valid: D = Proprietary code
>>	452	PartyRole	Y	Int	Identifies the type or role of the PartyID (448) specified. Values accepted by BCS: 1 = Executing Firm (broker) 3 = ClientID (broker client [not required]) 7 = Entering Firm (broker/firm) 9 = Fund Manager Client ID (broker client [not required]) 36 = Entering Trader (trader id)

## 5.6.2 Execution Report (MsgType = 8)

The Execution Report message is used in the following scenarios:

- Confirm the receipt of an order;
- Confirm changes to an existing order (i.e. accept order cancel requests);
- Relay order status information;
- Relay fill information on working orders (trades);
- Reject orders.

Each execution report contains two fields which are used to communicate both the current state of the order as understood by the broker and the purpose of the message: OrdStatus (used to convey the current status of an order) and ExecType (used to identify the purpose of the Execution Report message).

At the market closing trading phase, all unexecuted orders with expired timing force are cancelled from the order book, causing the generation of Execution Report messages with OrdStatus=Cancelled and ExecType=Expired to the order owners.

Tag	Field Name	Req'd	Data type	Comment
	<b>[Standard Header]</b>	Y		MsgType= 8
37	OrderID	Y	String	Unique identifier for Order as assigned by the exchange. Uniqueness is guaranteed within a single trading day.
198	SecondaryOrderID	C	String	Specifies the secondary order ID assigned by the exchange to this order, which will identify this order in the market data feed for order-depth book updates, whereas the OrderID is immutable and is not sent in the market data feed. If an order is received with MaxFloor (disclosure quantity) > 0, every time the quantity is replenished by the disclosure quantity amount (e.g. due to an execution), a new SecondaryOrderID is assigned to the order. This identifier may also be used for order cancellation and modification.
526	SecondaryClOrdID	N	String	Private identifier of the order as assigned by institution.
11	ClOrdID	Y	String	ID of electronically submitted order by the institution.
41	OrigClOrdID	C	String	Conditionally required when ExecType=5 (Replace); contains the ClOrdID of the replacement order. Otherwise, contains the same ID as ClOrdID.
584	MassStatusReqID	C	String	Required if responding to an Order Mass Status Request message. This value is echoed back from the request message.
911	TotNumReports	C	Int	Identifies the number of Execution Report messages that are returned as a response to an Order Mass Status Request. If only one Execution Report message is sent, this tag is optional.

912	LastRptRequested	C	Boolean	Indicates that this is the last Execution Report message that is returned as a response to an Order Mass Status Request. Possible values: True = Last Execution Report returned False = Otherwise	
	<b>[Parties]</b>	N		See section 5.6.1.3.	
382	NoContraBrokers	C	NumInGroup	Conditionally required when reporting trades. Number of contra brokers in an execution. Currently, this field will be always set to 1.	
>>	375	ContraBroker	N	String	Identifies contra broker.
>>	337	ContraTrader	N	String	Identifies the trader of the ContraBroker.
548	CrossID	C	String	ID of electronically submitted cross order by the institution (if in response to a cross order).	
17	ExecID	Y	String	Unique identifier of execution message as assigned by the exchange – unique per instrument.	
19	ExecRefID	C	String	Reference identifier used with Trade Cancel (ExecType=H) and Trade Correct (ExecType=G) execution types.	
150	ExecType	Y	Char	Describes the action that triggered this specific Execution Report -see the OrdStatus (39) tag for the current order status (e.g, Partially Filled). Values issued by BCS: 0 = New 4 = Canceled 5 = Replaced 8 = Rejected C = Expired D = Restated F = Trade G = Trade Correct H = Trade Cancel	
39	OrdStatus	Y	Char	Valid values: 0 = New 1 = Partially Filled 2 = Filled 4 = Canceled 5 = Replaced (Removed/Replaced) 8 = Rejected	
103	OrdRejReason	C	Int	For optional use with ExecType = 8 (Rejected). Code to identify reason for order rejection. Valid values: 1 = Unknown symbol 2 = Exchange closed 3 = Order exceeds limit 4 = Too late to enter 5 = Unknown Order 6 = Duplicate Order (e.g. dupe ClOrdID) 11 = Unsupported order characteristic 13 = Incorrect Quantity 15 = Unknown Account 99 = Other (generic error)	

378	ExecRestatementReason	C	String	Used only when ExecType=D (Restated) to communicate the reason of a change in the order or a restatement of the order's parameters without an electronic request from the customer. It can also be used to communicate unsolicited cancels. Valid issued by BCS: 0 = GT_CORPORATE_ACTION 1 = GT_RENEWAL_RESTATEMENT 2 = VERBAL_CHANGE 3 = REPRICING_OF_ORDER 4 = BROKER_OPTION 5 = PARTIAL_DECLINE_OF_ORDERQTY 6 = CANCEL_ON_TRADING_HALT 7 = CANCEL_ON_SYSTEM_FAILURE 8 = MARKET_OPTION 9 = CANCELED_NOT_BEST 10 = WAREHOUSE_RECAP 99 = OTHER 100 = REPLACED_BY_THIRD_PARTY
381	GrossTradeAmt	C	Amt	Conditionally required if ExecType = F (Trade). GrossTradeAmt indicates the amount for this trade.
63	SettlType	N	Char	Indicates order settlement period. The usual value used by the market at the BCS is T+2. Values accepted by BCS: 1 = Cash (T0) 2 = NextDay (T1) 3 = T+2 (short sells accept only this value) 4 = T+3 (only for offshore market) 8 = T+5 (only for offshore market)
64	SettlDate	N	LocalMktDate	Specific date of trade settlement in YYYYMMDD format.
	<b>[Instrument]</b>	Y		See section 5.6.1.1
54	Side	Y	Int	Side of order. Valid values: 1 = Buy 2 = Sell 5 = Short Sell
38	OrderQty	Y	Qty	Number of shares ordered.
40	OrdType	C	Char	Conditionally required when ExecType = 8 (Reject). Values issued by BCS: 1 = Market 2 = Limit
44	Price	C	Price	Price per share. Required if specified on the order.
15	Currency	N	Currency	Identifies currency used for price. Values sent by BCS: CLP = Chilean Peso COP = Colombian Peso PEN = Peruvian Nuevo Sol USD = United States Dollar

59	TimeInForce	N	Char	Specifies how long the order remains in effect. Values accepted by BCS: 0 = Day (or session) 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date (GTD)
126	ExpireTime	N	UTCTimestamp	Required when TimeInForce=6. Time/Date of order expiration (always expressed in UTC (Universal Time Coordinated, also known as "GMT") The meaning of expiration is specific to the context where the field is used.
32	LastQty	C	Qty	Conditionally required when ExecType = F (Trade). Quantity of shares bought/sold on this (last) fill.
31	LastPx	C	Price	Price of this (last) fill.
336	TradingSessionID	C	String	Used only when ExecType=F (Trade) to represent a specific market trading session. Values issued by BCS: 1 = Opening 2 = Continuous 3 = Volatility Auction 4 = Closing 5 = Afterhour 6 = Live Auction on BCS Floor 7 = Electronic Auction 8 = Trade Done on Exchange Floor 9 = Serialized Auction 10 = Local OIB (Inter-market order) 11 = Extern OIB (Inter-market order)
151	LeavesQty	Y	Qty	Amount of shares open for further execution. The general formula for the value is: $LeavesQty = OrderQty - CumQty$ .
14	CumQty	Y	Qty	Total number of shares or contracts filled.
6	AvgPx	Y	Price	Always 0 (zero).
75	TradeDate	N	LocalMktDate	Indicates date of trade referenced in this message in YYYYMMDD format. Absence of this field indicates current day (expressed in local time at place of trade).
60	TransactTime	N	UTCTimestamp	Time of execution/order creation; expressed in UTC (Universal Time Coordinated, also known as "GMT")
111	MaxFloor	C	Qty	Maximum number of shares within an order to be shown on the exchange at any given time. Used for iceberg orders.
58	Text	N	String	Free format text string.
797	CopyMsgIndicator	N	Boolean	Indicates whether or not this message is a drop copy of another message.
5463	TradeId	C	String	Conditionally required if ExecType = F (Trade). Contains the unique identifier for this trade, per instrument + trading

				date.
10132	RoundLotBook	C	Int	Indicates if the order is round lot. Valid values are: 0: is round lot. 1: not round lot.
	<b>[Standard Trailer]</b>	Y		See section 5.3

## 6. Message Scenarios

The following sections provide examples of the most common message scenarios.

### 6.1 Application Level Messages

The following diagrams illustrate different order (entry, execution, cancellation, modification) scenarios.

#### 6.1.1 Order Entry with Partial Fill

This example shows an order that is sent by the client. This order is partially filled.

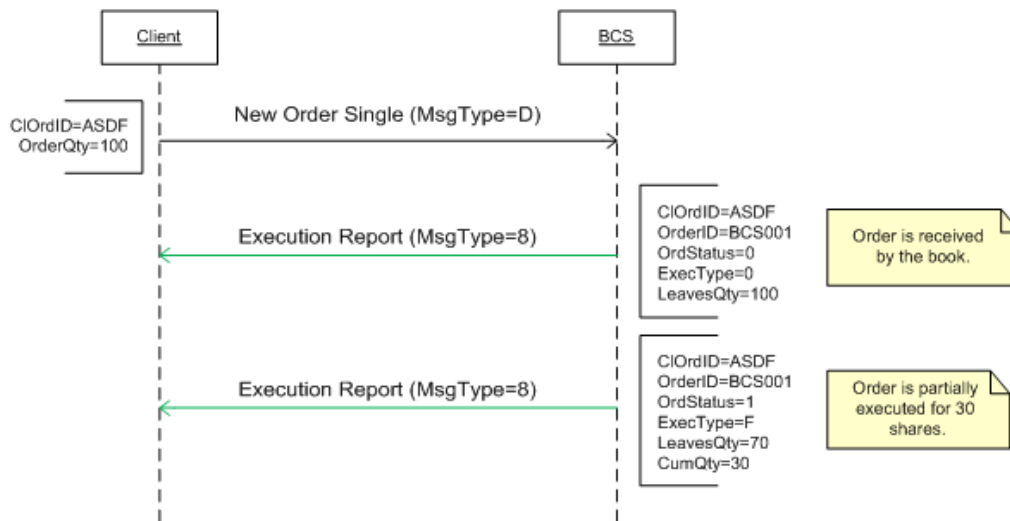


Figure 1. Order Entry with partial fill.

### 6.1.2 Order Entry with Complete Fill

This example shows an order that is sent by the client. This order is completely filled.

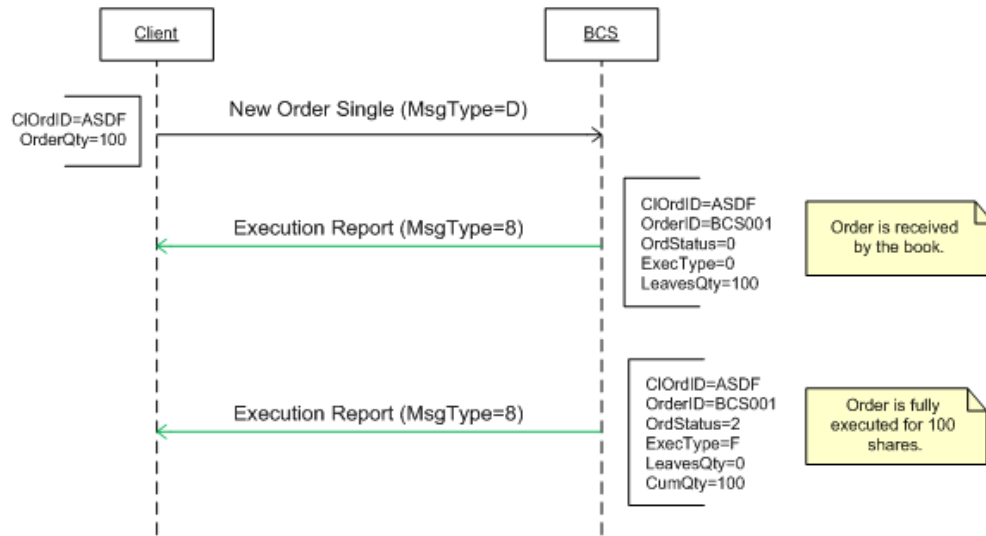


Figure 2. Order Entry with complete fill.



### 6.1.3 Order Entry with Modification

This example shows an order that is sent by the client and modified afterwards by its quantity.

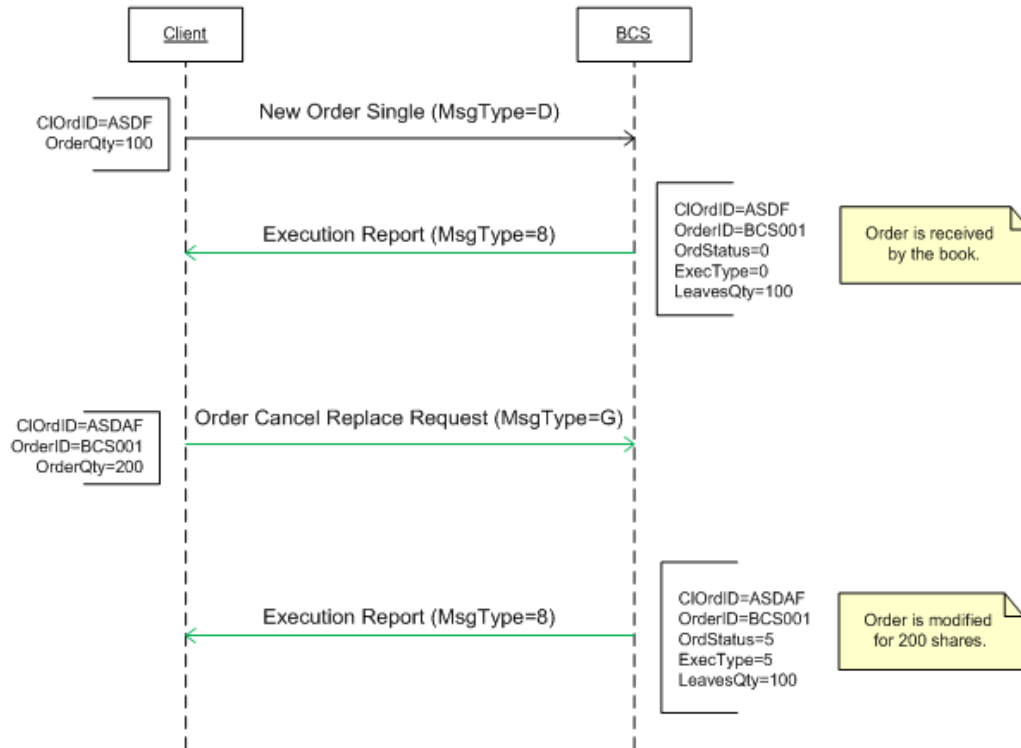


Figure 3. Order Entry with posterior modification.

### 6.1.4 Order Cancellation by OrderID

This example shows an order that is issued by the client, accepted by BCS, and is cancelled afterwards. Once an order is accepted by BCS, it is assigned a unique identifier by instrument called OrderID that is sent in a tag in each Execution Report message.

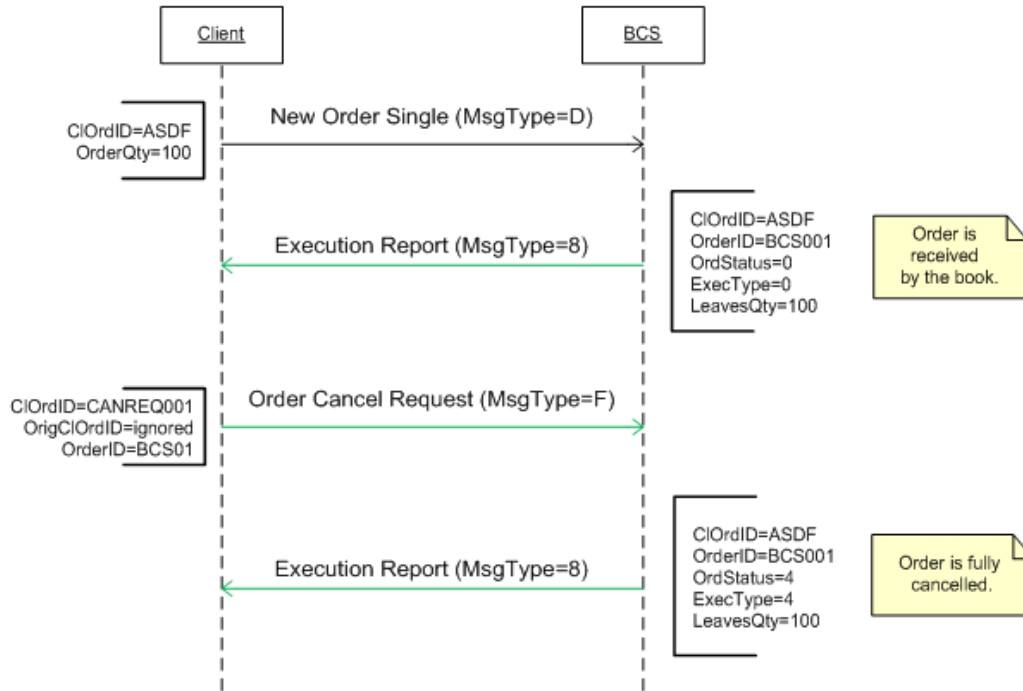


Figure 4. Order cancellation by OrderID.

### 6.1.5 Order Cancellation by ClOrdID

This example shows an order that is issued by the client and is cancelled afterwards by its ClOrdID. This ClOrdID is generated by the issuer of the order, must be unique for that trading session and is sent to the client in a tag in the Execution Report messages. BCS correlates the ClOrdID with its own OrderID per instrument.

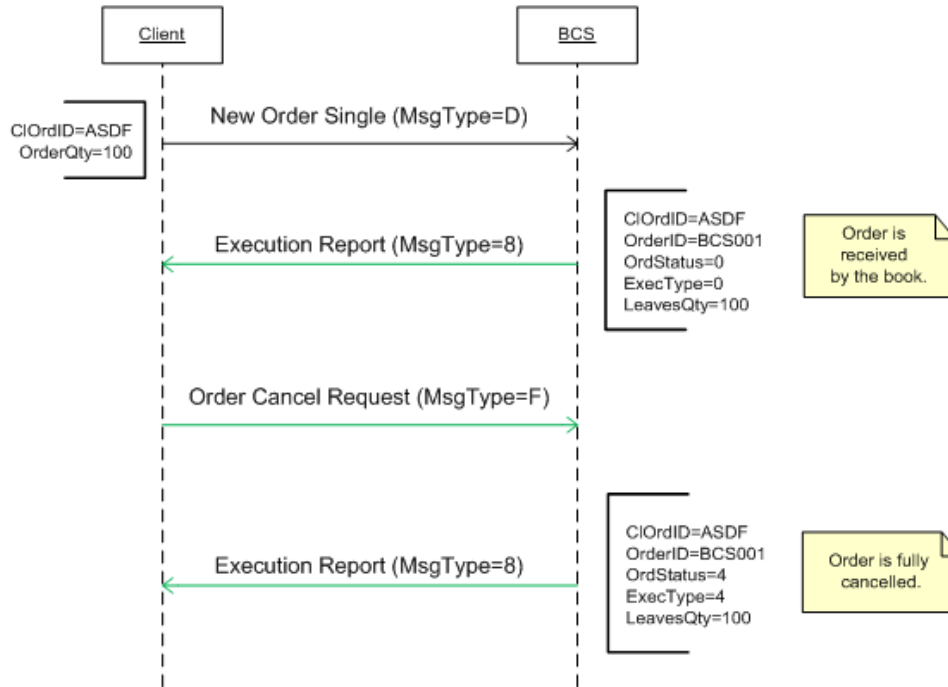


Figure 5. Order cancellation by ClOrdID.

### 6.1.6 Order Cancellation of a Partially Filled Order

This example shows an order cancellation by its OrderID of a partially filled order that the client previously issued.

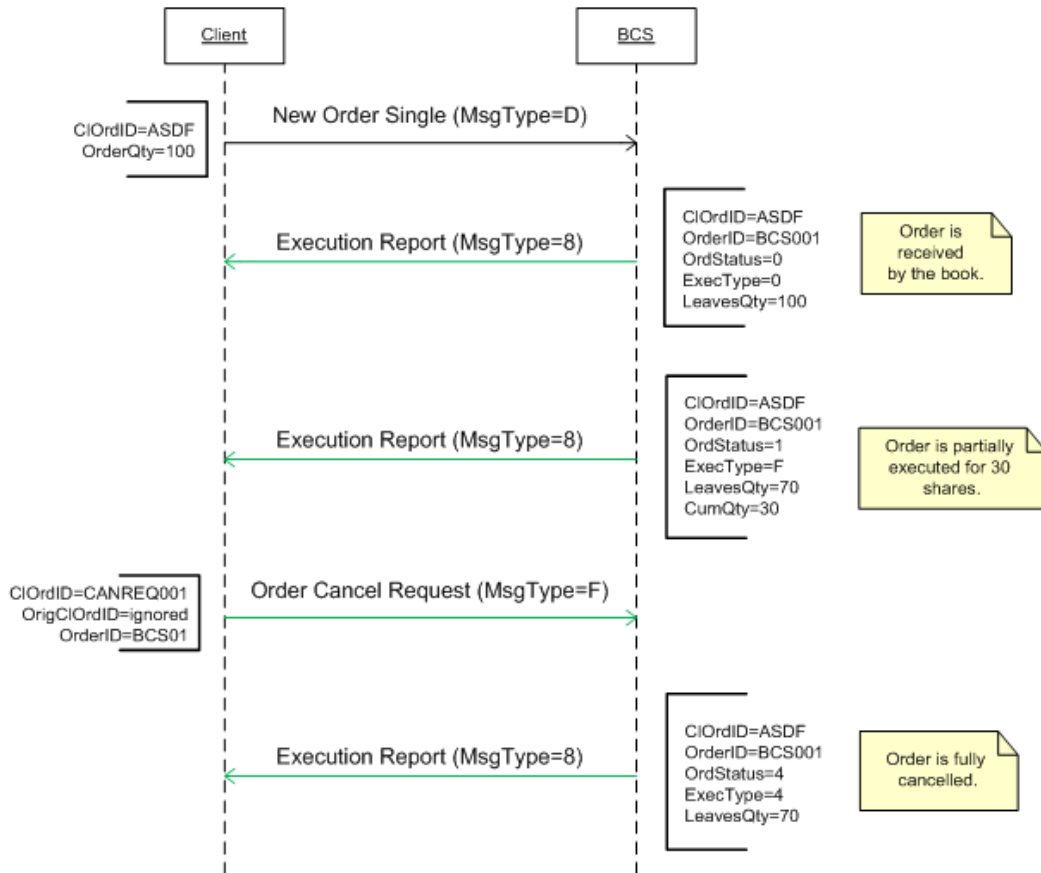


Figure 6. Order cancellation of a partially filled order.

### 6.1.7 Order Cancellation Attempt of a Filled Order

This example shows an order cancellation attempt by its OrderID of a filled order that the client previously issued. The cancel request will be rejected.

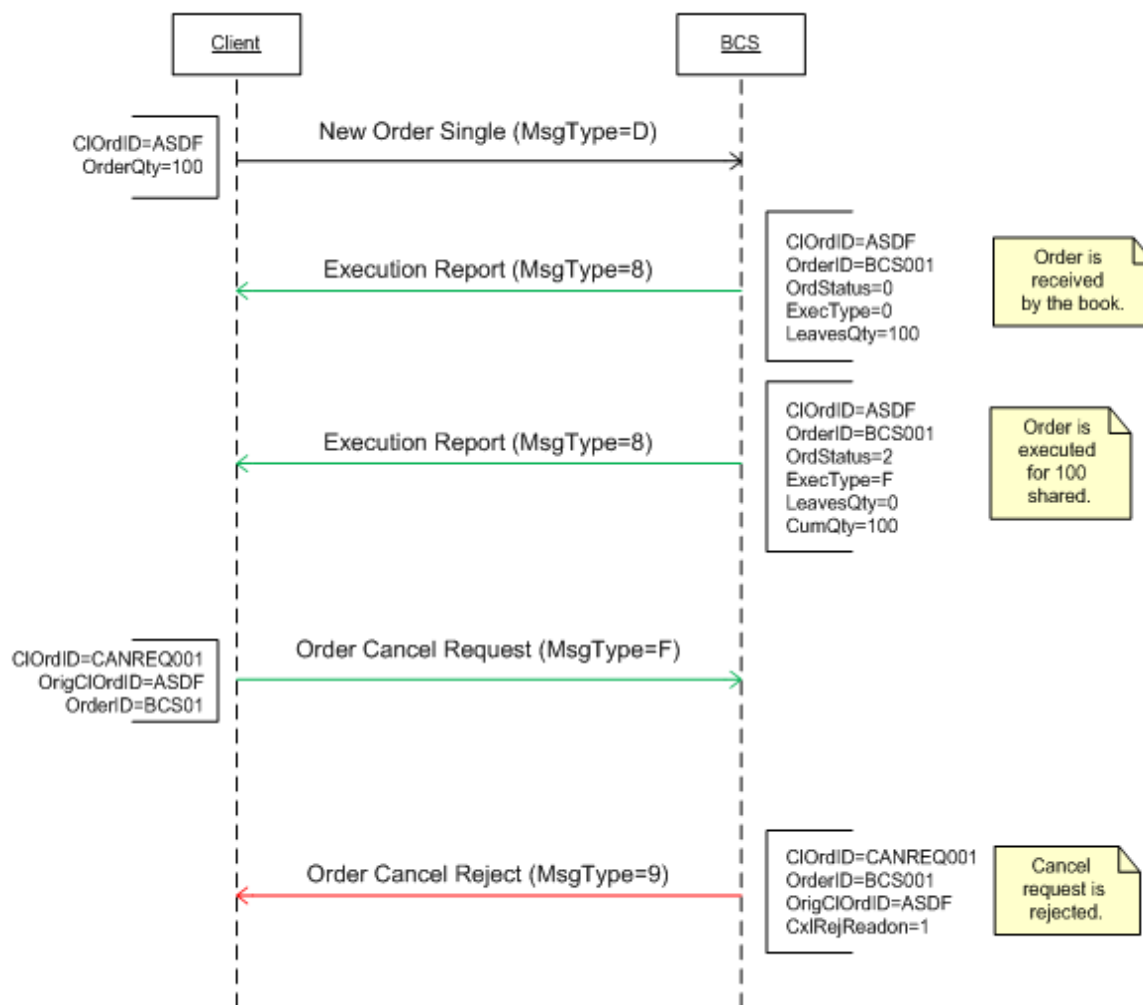


Figure 7. Order cancellation attempt of a filled order.

## 7. Examples

---

### 7.1 Logon

8=FIX.4.4

9=193

35=A

34=1

49=FOOCLIENT

52=20091112-13:11:42.917

56=TRADING-GATEWAY

95=97

**96=RawData provided by BCS**

98=0

108=60

141=Y

10=183

## 7.2 Execution Report (New Order)

8=FIX.4.4  
9=428  
35=8  
34=556  
49=DROPCOPYSERVER  
52=20101227-21:12:20.143  
56=DROPCOPYCLIENT  
57=BCS10990:1ei5:7  
6=0  
11=BCS10990:1ei5:7:2qd  
14=0  
17=ex1036146015256  
22=8  
31=0  
32=0  
37=ord1036146007712  
38=1000  
**39=0**  
40=2  
44=19560  
48=LAN  
54=2  
55=LAN  
59=0  
60=20101227-21:12:20.137  
63=3  
75=20101227  
111=1000  
**150=0**  
151=1000  
167=CS  
198=ord1036146007712-1  
207=XSGO  
453=4  
448=035  
447=D  
452=7  
448=001  
447=D  
452=36  
448=0  
447=D  
452=19  
448=035  
447=D  
452=1  
10=111

## 7.3 Execution Report (Order Cancel)

8=FIX.4.4  
9=453  
35=8  
34=560  
49=DROPCOPYSERVER  
52=20101227-21:12:50.633  
56=DROPCOPYCLIENT  
57=BCS10990:1ei5:7  
6=0  
11=BCS10990:1ei5:7:q9a  
14=0  
17=ex1036146015257  
22=8  
31=0  
32=0  
37=ord1036146007712  
38=1000  
**39=4**  
40=2  
41=BCS10990:1ei5:7:2qd  
44=19560  
48=LAN  
54=2  
55=LAN  
59=0  
60=20101227-21:12:50.627  
63=3  
75=20101227  
111=1000  
**150=4**  
151=1000  
167=CS  
198=ord1036146007712 - 1  
207=XSGO  
453=4  
448=035  
447=D  
452=7  
448=001  
447=D  
452=36  
448=0  
447=D  
452=19  
448=035  
447=D



452=1

10=097

## 7.4 Execution Report (Partial Fill)

8=FIX.4.4  
9=496  
35=834=528  
49=DROPCOPYSERVER  
52=20101227-21:07:45.864  
56=DROPCOPYCLIENT  
57=NB0054:t5o:5  
6=222  
11=NB0054:t5o:5:4rk7  
14=50  
17=ex1036146015249  
22=8  
31=222  
32=50  
37=ord1036146000001  
38=111  
**39=1**  
40=2  
41=NB0054:t5o:5:4rk7  
44=222  
48=CAP  
54=1  
55=CAP  
59=0  
60=20101227-21:07:45.810  
63=3  
64=20101229  
75=20101227  
111=111  
**150=F**  
151=61  
167=CS  
198=ord1036146000001-1  
207=XSGO  
336=2  
5036=228767  
382=1  
375=048  
337=048  
453=4  
448=035  
447=D  
452=7  
448=035  
447=D  
452=1  
448=001

447=D  
452=36  
448=0  
447=D  
452=19  
10=089

## 7.5 Execution Report (Fill)

8=FIX.4.4  
9=521  
35=8  
34=533  
49=DROPCOPYSERVER  
52=20101227-21:08:34.714  
56=DROPCOPYCLIENT  
6=1000  
11=1293458509269NOSGen:1292252638948:17  
14=1000  
17=ex1036146015252  
22=8  
31=1000  
32=1000  
37=ord1036146000018  
38=1000  
**39=2**  
40=2  
41=1293458509269NOSGen:1292252638948:17  
44=1000  
48=AGRICULTOR  
54=2  
55=AGRICULTOR  
59=0  
60=20101227-21:08:34.705  
63=3  
64=20101229  
75=20101227  
111=1000  
**150=F**  
151=0  
167=CS  
198=ord1036146000018-1  
207=XSGO  
336=2  
5036=228768  
382=1  
375=048  
337=048  
453=3  
448=035  
447=D  
452=7  
448=035  
447=D  
452=1  
448=001

447=D  
452=36  
10=021