SpiderRock V8 Reference

**Liquidity Request/Response**

FIX Specification

Version 1.0

December 15, 2023

Liquidity Request/Response FIX Specification

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# Introduction

This document provides a description of the tags, field names, types, and comments for the SpiderRock to Client application FIX messages (LiquidityRequest, ExecutionReport, and OrderCancelReject) and the Client to SpiderRock application FIX messages (NewOrderSingle, NewOrderMultileg, and OrderCancelRequest).

Repeating group tags are highlighted in yellow, such as the legs for multileg orders. Tags identifying the security details are highlighted in green.

## User Support

Production support is available at 312-256-9602.

Please email questions or comments regarding this document to: cs@spiderrock.net

# Application Messages

## LiquidityRequest (SpiderRock to Client)

QuoteRequest<R> messages are used to notify responders about liquidity response opportunities.  The same message is used for both flash (20ms) and block (up to 5 minutes) auctions.

| Tag | Field Name | Req'd | Type | Comments |
|-----|-----------|-------|------|----------|
|  | *Standard Header* | *Y* |  | *MsgType = R* |
| 131 | QuoteReqID | Y | string | Must be included as SRCrossNoticeID (24-character max) on New Order Single and New Order Multileg responses. |
| 55 | Symbol | Y | string | If 167=OPT: OSI Option Code<br>If 167=MLEG: Exchange Symbol |
| 167 | SecurityType | Y | string | OPT = Equity Option<br>MLEG = Multileg Spread |
| 38 | OrderQty | Y | int | Executable quantity |
| 44 | Price | N | float | Will exist if initiator is disclosing a public price |
| 54 | Side | N | char | 1 = Buy<br>2 = Sell<br>Initiator Side; will exist if initiator is disclosing a public side |
| 104 | IOIQualifier | N | char | L = UpToQty<br>A = AllOrNone<br>M = QtyOrMore |
| 303 | QuoteReqType | Y | char | B = Block<br>F = Flash |
| 60 | TransactTime | Y | utcDttm | YYYYMMDD-HH:MM:SS |

| Tag | Field Name | Req'd | Type | Comments |
|-----|-----------|-------|------|----------|
| 5022 | SRClientFirm | N | string | SRClientFirmCode of the initiating client firm (if disclosed) |
| 555 | NoLegs | N | int | Number of legs (MLEG Only) |
| => 600 | LegSymbol | Y | string | If 609=CS: Leg Exchange symbol<br>If 609=OPT: Option OSI code |
| => 609 | LegSecurityType | Y | string | OPT = Equity Option<br>CS = Equity |
| => 624 | LegSide | Y | char | 1 = Buy<br>2 = Sell |
| => 623 | LegRatioQty | Y | int | The ratio of quantity for this individual leg relative to the entire multileg security |

# NewOrderSingle (Client to SpiderRock)

NewOrderSingle<D> messages are used to submit responses to single security liquidity requests.  Note, liquidity responses are cancelable and will be automatically terminated by SR at the end of the auction sequence that they are responsive to.

| Tag | Field Name | Req'd | Type | Comments |
|-----|-----------|-------|------|----------|
|  | *Standard Header* | *Y* |  | *MsgType = D* |
| 11 | ClOrdId | Y | string | Client order ID (24 character max) |
| 5208 | SRCrossNoticeID | Y | string | QuoteRequestID from LiquidityRequest |
| 5094 | SROrderHandling | Y | int | 23 = BlockResponse |
| 1 | Account | Y | string | SR account acronym |
| 461 | CFICode | N | string | OC = Option - Call [OPT]<br>OP = Option - Put [OPT] |
| 201 | PutOrCall | N | int | Alternative to CFICode<461><br>0 = Put<br>1 = Call |
| 167 | SecurityType | N | string | Alternative to CFICode<461><br>OPT – Equity Option |
| 55 | Symbol | Y | string | Exchange symbol<br><ul><li>May incorporate symbol suffix (e.g. VIA.A)</li><li>For OPRA options, SpiderRock accepts an OSI code</li></ul> |
| 65 | SymbolSfx | N | string | Symbol suffix |
| 541 | MaturityDate | N | string | For Options<br>YYYYMMDD |
| 200 | MaturityMonthYear | N | string | Alternative to MaturityDate<541><br>YYYYMM |

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| Tag | Field Name | Req'd | Type | Comments |
|-----|-----------|-------|------|----------|
| 205 | MaturityDay | N | int | Alternative to MaturityDate<541><br>1-31 |
| 202 | StrikePrice | N | float | Option strike price |
| 54 | Side | Y | char | 1 = Buy<br>2 = Sell<br>Must be opposite of the side in the liquidity request |
| 38 | OrderQty | Y | int | Executable quantity |
| 77 | OpenClose | N | char | For Options<br>O = Open<br>C = Close<br>A = Auto (SR determines whether child orders should be marked open or closed by looking up account/aggregate group position when child orders are created). |
| 44 | Price | Y | float | Liquidity response price (4 decimals; does not need to be in normal price increments). |
| 5098 | SROrderLimitType | N | int | 2 = Price (static price)<br>3 = PriceDeGa (delta/gamma adjusted price; uMid reference)<br>4 = PriceDeGaX (delta/gamma adjusted price; uCross reference)<br>Default is Price |
| 5104 | SRTakeReachRule | Y | char | 5 = FullSize<br>10 = AtMost25<br>11 = AtMost50 |
| 5108 | SROrderRefUPrc | N | float | The initial reference price for PrcDe and PrcDeX order limit types. Default is SR supplied underlier reference at time of order arrival. |
| 5110 | SROrderRefDelta | N | float | The reference delta for PriceDeGa and PriceDeGaX order limit types.  Default is SR supplied delta at time of order arrival. |
| 5112 | SROrderRefGamma | N | float | The reference gamma for PriceDeGa and PriceDeGaX order limit types.  Default is SR supplied gamma at time of order arrival. |
| 60 | TransactTime | Y | utcDttm | YYYYMMDD-HH:MM:SS<br>(message must arrive within 15 seconds to be considered valid). |
|  | *Standard Trailer* | *Y* |  |  |

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# NewOrderMultileg (Client to SpiderRock)

NewOrderMultileg<AB> messages are used to submit responses to single security liquidity requests.  Note, liquidity responses are cancelable and will be automatically terminated by SR at the end of the auction sequence that they are responsive to.

| Tag | Field Name | Req'd | Type | Comments |
|---|---|---|---|---|
|  | *Standard Header* | *Y* |  | *MsgType = AB* |
| 11 | ClOrdId | Y | string | Client order ID (24-character max) |
| 5208 | SRCrossNoticeID | Y | string | QuoteRequestID from LiquidityRequest |
| 5094 | SROrderHandling | Y | int | 23 = BlockResponse |
| 1 | Account | Y | string | SR account acronym |
| 555 | NoLegs | Y | int | Number of legs |
| => 654 | LegRefId | Y | string | Used to identify a specific leg |
| => 608 | LegCFICode | N | string | ES = Equity Common Shares [CS]<br>F = Future [FUT]<br>OC = Option - Call [OPT]<br>OP = Option - Put [OPT] |
| => 609 | LegSecurityType | N | string | Alternative to LegCFICode<608> for Equities and Futures only.<br>• Must be specified for Futures and Options<br>• If not specified, Equity assumed<br>OPT – Equity Option<br>CS or <empty> - Equity |
| => 600 | LegSymbol | Y | string | Leg Exchange symbol<br>• May incorporate symbol suffix, e.g. VIA.A<br>• For OPRA options, SpiderRock accepts an OSI code in this field.<br>• For standardized futures products, maturity information can be included in this field, (e.g. GCZ22 [for the Dec-22 Comex Gold Future]). |
| => 601 | LegSymbolSfx | N | string | Leg Symbol Suffix |
| => 611 | LegMaturityDate | N | string | For Futures and Options<br>YYYYMMDD |
| => 612 | LegStrikePrice | N | float | Option strike price |

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| Tag | Field Name | Req'd | Type | Comments |
|---|---|---|---|---|
| => 624 | LegSide | Y | char | 1 = Buy<br>2 = Sell<br>5 = Sell short<br>6 = Sell short exempt<br>Y = Sell auto (SR determines whether child orders should be selling long or short by looking up account/aggregate group position when child orders are created). |
| => 623 | LegRatioQty | Y | int | The ratio of quantity for this individual leg relative to the entire multileg security |
| => 564 | LegPositionEffect | N | char | For Options<br>O = Open<br>C = Close<br>A = Auto (SR determines whether child orders should be marked open or closed by looking up account/aggregate group position when child orders are created). |
| 54 | Side | Y | char | 1 = Buy<br>2 = Sell<br>Must be opposite of the side in the liquidity request |
| 38 | OrderQty | Y | int | Executable quantity |
| 44 | Price | Y | float | Liquidity response price (4 decimals; does not need to be in normal price increments). |
| 5098 | SROrderLimitType | N | int | 2 = Price (static price)<br>3 = PriceDeGa (delta/gamma adjusted price; uMid reference)<br>4 = PriceDeGaX (delta/gamma adjusted price; uCross reference)<br>Default is Price |
| 5104 | SRTakeReachRule | Y | char | 5 = FullSize<br>10 = AtMost25<br>11 = AtMost50 |
| 5108 | SROrderRefUPrc | N | float | The initial reference price for PrcDe and PrcDeX order limit types. Default is SR supplied underlier reference at time of order arrival. |
| 5110 | SROrderRefDelta | N | float | The reference delta for PriceDeGa and PriceDeGaX order limit types. Default is SR supplied delta at time of order arrival. |
| 5112 | SROrderRefGamma | N | float | The reference gamma for PriceDeGa and PriceDeGaX order limit types. Default is SR supplied gamma at time of order arrival. |
| 60 | TransactTime | Y | utcDttm | YYYYMMDD-HH:MM:SS<br>(message must arrive within 15 seconds to be considered valid) |
|  | *Standard Trailer* | *Y* |  |  |

# ExecutionReport (SpiderRock to Client)

SpiderRock follows FIX 4.4 rules for ExecutionReport handling but can switch to FIX 4.2 on request.

| Tag | Field Name | Req'd | Type | Comments |
|---|---|---|---|---|
| | *Standard Header* | Y | | *MsgType = 8* |
| 37 | OrderID | Y | string | Unique ID for order chain assigned by SpiderRock |
| 11 | ClOrdID | Y | string | Value from client request |
| 41 | OrigClOrdID | N | string | Conditionally required for response to a Cancel or Cancel/Replace request<br>• (ExecType=PendingCancel, Replaced, or Canceled) |
| 76 | ExecBroker | N | string | Value from executing venue |
| 5036 | SRUsername | N | string | Used for customer service and futures compliance |
| 5012 | SRAltAccnt | N | string | |
| 5410 | SRExtTraderId | N | string | |
| 5350 | SRExecBrokerMPID | N | string | Executing broker MPID |
| 17 | ExecID | Y | string | Unique ID assigned by SpiderRock |
| 20 | ExecTransType | Y | int | |
| 19 | ExecRefID | N | string | |
| 150 | ExecType | Y | char | |
| 60 | TransactTime | Y | utcDttm | Time the transaction represented by this ExecutionReport occurred |
| 39 | OrdStatus | Y | char | |
| 103 | OrdRejReason | N | int | For optional use with ExecType = 8 (Rejected) |
| 378 | ExecRestatementReason | N | int | If replaced in the SpiderRock System using another order entry method |
| 1 | Account | Y | string | Assigned by SpiderRock |
| 54 | Side | Y | char | Value from executing venue<br>• Value may differ from client's order if execution order is sold short. |
| 38 | OrderQty | Y | int | |
| 40 | OrdType | Y | char | Order type of this execution |
| 77 | OpenClose | N | char | Value from client's order |
| 44 | Price | N | float | Value from client's order |
| 528 | OrderCapacity | N | char | Value from order to venue |

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| 32 | LastShares | Y | int | |
|---|---|---|---|---|
| 31 | LastPx | Y | float | |
| 30 | LastMkt | N | string | Value from executing venue |
| 29 | LastCapacity | N | string | Value from executing venue |
| 151 | LeavesQty | Y | int | 0 if order is not active, not (OrderQty-Cum) |
| 14 | CumQty | Y | int | |
| 6 | AvgPx | Y | float | Execution price |
| 58 | Text | N | string | |
| 5605 | SRRejectCode | N | int | See Appendix C for a list of SR reject codes |
| 442 | MultiLegReportingType | N | char | Used to indicate what an Execution Report represents (e.g. used with multi-leg securities, such as option strategies, spreads, etc.).<br><br>1 = SINGLE_SECURITY<br>2 = INDIVIDUAL_LEG<br>3 = MULTI_LEG_SECURITY |
| 654 | LegRefID | N | string | Used to identify a specific leg for multileg order execution reports |
| 439 | ClearingFirm | N | string | Value from client's order, or SpiderRock account config |
| 440 | ClearingAccount | N | string | Value from client's order, or SpiderRock account config |
| 167 | SecurityType | N | string | Value from client's order |
| 55 | Symbol | Y | string | Value from client's order |
| 65 | SymbolSfx | N | string | Value from client's order |
| 461 | CFICode | N | string | Value from client's order |
| 201 | PutOrCall | N | int | Value from client's order |
| 541 | MaturityDate | N | string | Value from client's order<br>YYYYMMDD |
| 200 | MaturityMonthYear | N | string | Value from client's order<br>YYYYMM |
| 205 | MaturityDay | N | int | Value from client's order<br>1-31 |
| 202 | StrikePrice | N | price | Value from client's order |
| | *Standard Trailer* | *Y* | | |

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# OrderCancelRequest (Client to SpiderRock)

SpiderRock natively follows FIX 4.4 rules for OrderCancelRequest handling but can switch to FIX 4.2 on request.

| Tag | Field Name | Req'd | Type | Comments |
|---|---|---|---|---|
|  | *Standard Header* | *Y* |  | *MsgType = F* |
| 11 | ClOrdId | Y | string | Client order ID of the cancel request (24 character max) |
| 41 | OrigClOrdID | Y | string | ClOrdID<11> of the previous order (NOT the initial order of the day) when canceling an order (24 character max) |
| 58 | Text | N | string | User supplied text such as a cancel reason |
| 60 | TransactTime | Y | utcDttm | YYYYMMDD-HH:MM:SS |
|  | *Standard Trailer* | *Y* |  |  |

# OrderCancelReject (SpiderRock to Client)

SpiderRock FIX Gateways follow FIX 4.4 style rules for CancelReject handling but can switch to FIX 4.2 on request.

| Tag | Field Name | Req'd | Type | Comments |
|---|---|---|---|---|
|  | *Standard Header* | *Y* |  | *MsgType = 8* |
| 37 | OrderID | Y | string | Unique ID for order chain assigned by SpiderRock |
| 11 | ClOrdID | Y | string | Value from client request |
| 41 | OrigClOrdID | Y | string | Conditionally required for response to a Cancel or Cancel/Replace request (ExecType=PendingCancel, Replaced, or Canceled) |
| 434 | CxlRejResponseTo | Y | char | Valid values:<br>1 = OrderCancelRequest <F><br>2 = OrderCancel/Replace Request <G> |
| 102 | CxlRejReason | N | int |  |
| 39 | OrdStatus | Y | char | OrdStatus value after this cancel reject is applied |
| 58 | Text | N | string |  |
|  | *Standard Trailer* | *Y* |  |  |

# Appendix

## Standard Header

| Tag | Field Name | Req'd | Type |
|-----|-----------|-------|------|
| 8 | BeginString | Y | FIX.4.2 (Always unencrypted, must be second field in message) FIX.4.4 |
| 9 | BodyLength | Y | (Always unencrypted, must be second field in message) |
| 35 | MsgType | Y | (Always unencrypted, must be third field in message) |
| 49 | SenderCompID | Y | (Always unencrypted) |
| 56 | TargetCompID | Y | (Always unencrypted) |
| 97 | PossResend | N | Required when message may be duplicate of another message sent under a different sequence number. (Can be embedded within encrypted data section.) |
| 52 | SendingTime | Y | (Can be embedded within encrypted data section.) |
| 122 | OrigSendingTime | N | Required for message resent as a result of a ResendRequest. If data is not available set to same value as SendingTime <52> (Can be embedded within encrypted data section.) |

## Standard Trailer

| Tag | Field Name | Req'd | Type |
|-----|-----------|-------|------|
| 10 | CheckSum | Y | (Always unencrypted, always last field in message) |

## Reject Codes

| Tag | Field Name | Req'd | Type | Comments |
|-----|-----------|-------|------|----------|
| 5605 | SRRejectCode | N | string | *TBD* |

## Version History

| Version | Date | Comment |
|---------|------|---------|
| 1.0 | 2023-12-15 | Initial specification |