

In a FIX (Financial Information Exchange) message, especially for an exchange-traded derivative (ETD), the internal trade reference would typically be communicated using the "**ClOrdID**" (**Tag 11**) or "**OrderID**" (**Tag 37**) fields. These are used to carry unique identifiers for the order or trade.

Here is how you might set up a FIX New Order Single message (MsgType = D) with an internal trade reference for an ETD:

Example FIX message fields for an ETD:

- **8 = FIX.4.4** (BeginString, protocol version)
- **35 = D** (MsgType, New Order Single)
- **11 = YOUR_INTERNAL_TRADE_REF** (ClOrdID, internal order ID/trade reference)
- **55 = FUT** (Symbol, could be the specific symbol for the futures contract)
- **54 = 1** (Side, buy=1 or sell=2)
- **21 = 1** (HandlInst, automated order handling)
- **38 = 10** (OrderQty, quantity of the order)
- **40 = 2** (OrdType, limit order)
- **44 = 100.5** (Price, limit price)
- **59 = 1** (TimeInForce, good for day order)
- **167 = FUT** (SecurityType, Futures)
- **207 = EXCHANGE** (SecurityExchange, exchange code like CME)
- **10 = 123** (Checksum, calculated at the end of the message)

Important Fields:

- **ClOrdID (Tag 11)**: This is your internal trade reference, and it's essential for uniquely identifying the order.
- **OrderID (Tag 37)**: Once the order is accepted by the exchange, you'll receive this field in the execution report from the exchange as the order's unique identifier on their system.

For ETD instruments, you'll also need to define specific tags like **Symbol (Tag 55)**, **SecurityType (Tag 167)**, and **SecurityExchange (Tag 207)** to represent the details of the traded instrument.

When an exchange-traded derivative (ETD) trade is cleared, the clearing firm or central counterparty (CCP) sends back a confirmation message, often via a FIX Execution Report (MsgType = 8). This message typically contains detailed information about the trade and the clearing status.

Here are the key fields that are usually present in a cleared ETD trade confirmation message:

Common FIX Fields in a Cleared ETD Trade Confirmation

1. **BeginString (Tag 8):** Version of the FIX protocol, e.g., **FIX.4.4**.
2. **MsgType (Tag 35):** **8** for Execution Report.
3. **OrderID (Tag 37):** The exchange's unique identifier for the order.
4. **ExecID (Tag 17):** Execution identifier from the clearinghouse or exchange.
5. **ExecType (Tag 150):** Type of execution; for a cleared trade, it could be **F** (Trade) or **4** (Canceled), depending on the action.
6. **OrdStatus (Tag 39):** The status of the order; after clearing, this is typically **2** (Filled) or **1** (Partially Filled).
7. **ClOrdID (Tag 11):** The client's unique order reference (your internal trade reference sent with the order).
8. **TradeDate (Tag 75):** The date when the trade occurred.
9. **TransactTime (Tag 60):** The time when the transaction was executed.
10. **LastQty (Tag 32):** The quantity executed in this particular trade (might be partial fills).
11. **LastPx (Tag 31):** The price of the last executed trade.
12. **CumQty (Tag 14):** The total quantity executed so far for this order.
13. **AvgPx (Tag 6):** The average price of the fills for the order.
14. **SecurityID (Tag 48):** The unique identifier for the specific contract or instrument traded (e.g., ISIN or exchange-specific identifier).
15. **SecurityType (Tag 167):** **FUT** (Futures), **OPT** (Options), or other types.
16. **Symbol (Tag 55):** The ticker or symbol for the contract traded.
17. **SecurityExchange (Tag 207):** The exchange where the trade was executed (e.g., CME, ICE).
18. **InstrumentLeg fields:** For options and multi-leg trades (e.g., spreads), you may have details about the specific legs, such as:
 - **LegSymbol (Tag 600):** Symbol of the specific leg.
 - **LegLastPx (Tag 637):** Execution price of the leg.
 - **LegLastQty (Tag 635):** Quantity executed for that leg.
19. **SettlType (Tag 63):** Specifies the settlement type; for cleared trades, this is often **0** (Regular).
20. **SettlDate (Tag 64):** The date when the trade will be settled.
21. **ClearingFirm (Tag 439):** The identifier of the clearing firm.
22. **ClearingAccount (Tag 440):** The account at the clearing firm.
23. **TrdRegTimestamps (Tag 768):** Regulatory timestamps related to the execution.
24. **Commission (Tag 12):** The commission charged for this trade, if applicable.
25. **ClearingBusinessDate (Tag 715):** Date the trade is cleared (can differ from the trade date).

Additional Fields:

- **Account (Tag 1):** The account at the broker for which the trade was executed.
- **GrossTradeAmt (Tag 381):** The gross amount of the trade.
- **ExecBroker (Tag 76):** The ID of the executing broker.
- **Text (Tag 58):** Free-form text or additional information regarding the execution or clearing.

Example Structure of a Cleared Trade Confirmation (Execution Report):

8=FIX.4.4|35=8|37=EXCHANGE_ORDER_ID|11=YOUR_INTERNAL_TRADE_REF|17=EX
EC_ID|150=F|39=2|32=10|31=100.5|6=100.5|14=10|75=20231020|60=2023102
0-12:34:56|55=FUT|48=12345678|167=FUT|207=CME|439=CLEARING_FIRM_ID|4
40=CLEARING_ACCOUNT|715=20231021|...

Important Notes:

- The exact fields and structure may vary based on the FIX protocol version and specific requirements from the clearinghouse or exchange.
- Some additional proprietary or custom tags may be included depending on the system or counterparty involved.

Let me know if you need more details on any specific field!