API Release Notes Beta

The modifications below are in **build 9.72** of the TWS API.

For clarification on any of the items listed, send us an email at API Support.

Enhancements

Fields Renamed from "Expiry" to "LastTradingDay" or "LastTradingDayorContractMonth"

Within TWS, we use the last trading day and not the actual expiration date for futures, options and futures options contracts. To more accurately reflect this data, we have changed all of the "expiry" fields throughout the API to either "LastTradingDay" or "LastTradingDayorContractMonth" as noted below.

For TWS messages being sent to the API client, the values is always Last Trading Day, and so the "Expiry" field has been changed to "LastTradingDay":

OPEN_ORDER = 5;
PORTFOLIO_VALUE = 7;
CONTRACT_DATA = 10;
EXECUTION_DATA = 11;
SCANNER_DATA = 20;
TICK_EFP = 47;
POSITION = 61;

For messages sent from the API to TWS, if the value length is 8, TWS understand it as the Last Trading Day. If the value length is 6, TWS understand it as the Contract Month. For these, the "Expiry" field has been renamed to "LastTradingDayorContractMonth":

REQ_MKT_DATA = 1;
PLACE_ORDER = 3;
REQ_CONTRACT_DATA = 9;
REQ_MKT_DEPTH = 10;
REQ_HISTORICAL_DATA = 20;
EXERCISE_OPTIONS = 21;
REQ_REAL_TIME_BARS = 50;
REQ_CALC_IMPLIED_VOLAT = 54;
REQ_CALC_OPTION_PRICE = 55;

For the above, the expiry field is wrapped in the Contract class. We have renamed Contract.expiry to Contract.lastTradingDayOrContractMonth.

SSL Support in API

The TWS API library can now communicate with TWS over a secured SSL protocol. In conjunction with this added support, the EClientSocket, which was previously a combination of client functionality plus socket functionality/transport, was split to isolate socket functionality/transport in an ESocket class implementing an ETransport interface. This refactoring allows us to implement alternative transports, specifically SSL.

New Order Fields for Volatility Orders

Two new attributes are supported for Volatility and Pegged to Volatility orders. These are available in all API platforms

- randomizeSize - Boolean
- randomizePrice - Boolean

Read-Only Mode for API

Effective in TWS 950 and above, API users have the option to set the API to Read-Only mode. This mode allows viewing of market data and account information, but blocks any type of trading activity Additionally, users can elect to limit access only to connections made from the same computer. To set API parameters, from within TWS Global Configuration select *API*.

Clients and Sample Applications

Beginning with this release, we have made the following changes to our API clients and sample applications:

- The C++ MFC-based client and sample applications have been deprecated.
- The ActiveX Control is now written in C#.
- **PosixClient** has been renamed to **CppClient,** and is located in the *source* directory of your API installation folder.
- In the Java client, the **AnyWrapper** interface has been removed. Its methods have been incorporated into the **EWrapper** interface.
- The ApiController-specific classes (e.g. NewOrder) have been merged into the main Java client.

Connection Enhancements

We have added the following new connection features:

- **useV100Plus** and **connectionOptions** - These fields are used together to implement two-way versioning for connections to TWS 947+.

  When enabled via **setUseV100Plus**, the client will report a range of supported API versions to TWS. TWS will respond with highest supported API version in the range specified by the client. From that moment on, both client and server are expected to send messages formatted according to the negotiated version. Currently only version 100 is supported. This version adds 4-byte network-byte-order length prefixes to all messages.

connectionOptions is a field reserved for future extensions. For now, API clients should specify an empty string when connecting to TWS.

- **startApi: optionalCapabilities** - This field is reserved for future extensions. For now, API clients should specify an empty string.

Solicited Flag

We have added a new Order attribute, *Solicited* to the Order object. *Solicited* is a boolean attribute with the following values:

- True = solicited (orders initiated by a broker through the brokers research and design).
- False = unsolicited (those instigated by a broker's customer either through their actions or by the broker at their direction).

New Error Codes

The following new error codes have been added to the Java client:

- 506 - Unsupported Version
- 507 - Bad Message Length
- 508 - Bad Message

primaryExchange Field

Beginning with this release, we have made the following changes to the *primaryExchange* field:

- TWS serverVersion=75 and above supports the new dedicated field *primaryExchange*.
- TWS builds 939, 942 and above (note that this corresponds to a subset of serverVerion=69 and above; not all serverVersion=69 support this) support this new behavior:
- The *exchange* field is formatted as follows:
  exchange= SMART:LSEIOB1
  In this example, the colon (:) is a default separator that is configurable in TWS.
- For new builds, you can set *primaryExchange* either in the new dedicated field or by using the separator, but not both. If *primaryExchange* is set in both places, the request will be rejected.

API Order End Marker Bug Fixed

We have fixed a bug with API orders that sent an end marker prematurely. Beginning with TWS beta release 948, the end marker will be sent to the API only after all of the orders have been delivered to TWS.

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