

Strategy Studio: ICEConsolidatedDataAdapter (Market Data)

The ICEConsolidatedDataAdapter supports ICE's Consolidated data feed via the ICE Consolidated Feed API.

This data adapter is enabled by adding the following setting to the server's main configuration file:

- > **PRIMARY_ADAPTER= ICEConsolidatedAdapter**

The following main server configuration setting specifies the required file containing ICE connection/source details:

- > **ICE_SOURCE_CONFIG_FILE=path/filename**
 - Optional. ICE source detail configuration file. Default is "ice_config.xml"

The following is an example of the configuration file's XML tree hierarchy:

```
<connection username="user" password="password">
  <host>127.0.0.1</host>
  <port>4002</port>
  <failover_host>999.9.9.9</failover_host>
  <failover_port>4002</failover_port>
  <use_compression>true</use_compression>
  <use_conflation>false</use_conflation>
  <num_api_threads>1</num_api_threads>
  <nbbo_equities>true</nbbo_equities>
  <enum_src_ids>
    <enum_src_id id="229">
      <description>CTA NYSE Regional Only</description>
      <market_center_id>NYSE</market_center_id>
      <feed_type>DIRECT</feed_type>
      <market_type>US_EQUITIES</market_type>
      <condition_type>S</condition_type>
      <has_quotes>true</has_quotes>
      <has_trades>true</has_trades>
    </enum_src_id>
    <enum_src_id id="266">
      <description>NYSE Arca Imbalance</description>
      <market_center_id>ARCA</market_center_id>
      <feed_type>DIRECT</feed_type>
      <market_type>US_EQUITIES</market_type>
      <imbalance>true</imbalance>
    </enum_src_id>
    <enum_src_id id="564">
      <description>NASDAQ Composite Only</description>
      <market_center_id>UNKNOWN</market_center_id>
      <feed_type>CONSOLIDATED</feed_type>
      <market_type>US_EQUITIES</market_type>
      <condition_type>U</condition_type>
      <nbbo>true</nbbo>
    </enum_src_id>
  </enum_src_ids>
</connection>
```

- > 'connection' definition should contain one or more 'enum_src_id' definitions, instruments will subscribe to enum_src_id's that match their market_type.
- > 'username', 'password', 'host', 'port', 'enum_src_id', 'market_center_id', 'market_type' and 'feed_type' are required tags.
- > The username and password attributes apply to all connections unless overridden by a connection's alternate tag definition.

Strategy Studio: ICEConsolidatedDataAdapter (Market Data)

- > 'nbbo_equities' is an optional element that defaults to 'false'. When set to 'true', the adapter will only load sources that have a corresponding 'nbbo' element set to 'true'. When set to 'false', the adapter will only load sources for which 'nbbo' is 'false' (the adapter does not support both NBBO and non-NBBO sources). See source 564 above for example usage.
- > 'enum_src_id' corresponds to a data source identifier as defined by ICE
- > 'market_center_id', 'feed_type', and 'market_type' correspond to Strategy Studio types, values correspond to corresponding enum names stripping the prefix (ie "US_EQUITIES" -> MARKET_TYPE_US_EQUITIES)
- > 'condition_type' is optional element to identify how to normalize trade and quote conditions. Recognized Values include 'S' for SIAC and 'U' for UTP.
- > 'imbalance' is an optional element that defaults to 'false' and should be set to 'true' for imbalance-only sources. See source 266 above for example usage.
- > 'has_quotes' and 'has_trades' are optional elements that default to 'true' and indicate whether a given source contain quote and trade information. If a source does not contain either quotes or trades, the corresponding element should be set to 'false'.
- > use_compression defaults to true, use_conflation defaults to false, num_api_threads defaults to 1 and must be 8 or less (1-3 recommended depending on server cores and universe size).

Note that ICE sources 13 and 15 are for entitlement purposes only. Subscribe to their component sources to connect to the associated data. Additionally, adapter submits market_center_id from xml config rather than a tag in Consolidated Feed, so enum_src_id's should be configured per feed per market.