

Strategy Studio: CTSFixExecutionHandler (Execution Handler)

CTSFixExecutionHandler is Strategy Studio's FIX interface to Cunningham Trading Systems' T4 FIX API. It supports all major features as of version 4.0 and is based on the FIX 4.2 protocol. This handler currently only supports CME instruments.

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

- > **EXECUTION_HANDLER_MODE=CTSFixExecutionHandler**

Session Level Settings

Session-level settings are specified in the file `execution_handler-conf/cts_fix.config`. Notable settings include:

- > **StartTime=HH:MM:SS**
- > **EndTime=HH:MM:SS**
 - Required. Sets the window of time that the execution handler will attempt a connection, in UTC.
- > **UseDataDictionary=Y**
 - Required. The CTS T4 Fix API requires a custom FIX data dictionary that is provided with this execution handler
- > **DataDictionary=path/filename**
 - Required. Custom FIX data dictionary path and filename
- > **SocketConnectHost=host**
 - Required. Target host IP. Note that connections must be made through an SSL proxy such as stunnel.
- > **SocketConnectPort=port**
 - Required. Target host port.
- > **ReconnectInterval=seconds**
 - Reconnect wait period for a disconnected session.
- > **ResetOnLogout=Y**
 - Required. The CTS T4 FIX API sequence numbers start with one at each logon.
- > **ResetOnDisconnect=Y**
 - Required. The CTS T4 FIX API sequence numbers start with one at each logon.
- > **SenderCompID=LimeStrategyStudio**
 - Required. Application name associated with CTS account registration. Must be "LimeStrategyStudio".
- > **SecureData=licenseCode**
 - Required. CTS account license code provided with account registration.
- > **TargetCompID=targetCompID**
 - Required. Firm ID for the firm registering the CTS account.
- > **Username=username**
 - Required. CTS account username. Note that the CTS T4 FIX API does not allow logins to the same username from another application.
- > **Password=password**
 - Required. CTS account password.
- > **StrategyStudioAccount=accountName**
 - Required. Strategy Studio account associated with this session.

Message validation should be disabled by setting **ValidateUserDefinedFields=N** and **ValidateFieldsOutOfOrder=N**.

Custom Order Parameters

Most order properties are set using OrderParams's fields. Order properties that are not included in OrderParams can be set via OrderParams's `custom_params` member, which is a `std::vector<boost::any>`. The values are expected to be of type `std::pair<int, std::string>`, with the first specifying the FIX tag number and the second specifying the string value for the FIX field. A full description of supported FIX tags is available in CTS's *T4 FIX API*

OrderParams's custom_params may be used on both new orders and cancel replaces. Note that custom_params are not automatically cleared after submission of a new order; therefore, if the existing Order's OrderParams is used when sending a cancel replace, custom_params should be cleared before submission.