# Strategy Studio:  LMAXExecutionHandler (Execution Handler)

LMAXExecutionHandler is Strategy Studio's FIX interface to LMAX's FIX 4.4 gateway and is certified for trading currency pairs. It supports all major features as of version 129.

This execution handler may be selected by adding the following setting to the server's main configuration file:

> **EXECUTION_HANDLER_MODE= LMAXExecutionHandler**

LMAX provides a file named LMAX-Instruments.csv that gives the LMAX ID and other instrument properties for each currency pair. This file must be located in the server directory.

LMAX requires that traffic be encrypted, and we recommend that an SSL encryption wrapper, such as stunnel, be used for this purpose. Example configuration files for stunnel can be found in LMAX's FIX 4.4 Package.

## *Session Level Settings*

Many of the session-level settings are specified in the file execution_handler-conf/lmax_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.
> **SocketConnectHost=*host***
>   • Required. Specifies the IP of the encryption wrapper for this session.
> **SocketConnectHost[n]=*host***
>   • Optional. Allows additional hosts to be specified for failover purposes. After connection failure, the next host is tried in a round-robin fashion.
> **ReconnectInterval=*seconds***
>   • Sets the wait period before a disconnected session attempts a reconnect.
> **SenderCompID=*senderCompID***
>   • Required. This corresponds to an LMAX account and will be provided by LMAX.
> **TargetCompID=targetCompID**
>   • Required. This will be provided by LMAX.
> **Username=*username***
>   • Required. This is the username for the LMAX account.
> **Password=*password***
>   • Required. This is the password for the LMAX account.
> **StrategyStudioAccount=a*ccountName***
>   • Required. Sets the Strategy Studio account that will be associated with this session.

## *Custom Order Parameters*

Most LMAX 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 LMAX's FIX 4.4 Package.

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.