

Stock Exchange of Thailand (SET) MTS-SET ©MetaTrader 5 Gateway

Introduction

Stock Exchange of Thailand (SET) is using a trading system called SET_CONNECT.

©MetaTrader 5 SET Gateway acts as a bridge between SET_CONNECT trading system and ©MetaTrader 5 Platform enabling traders to access SET equity products using the

©MetaTrader 5 Terminal.

SET ©MetaTrader 5 Gateway as part of **©MetaTrader 5 Platform** will enable brokers to provide their clients with access to SET equity products.

Below underlying assets are currently available:

EQUITIES	<i>Stock Index and Individual Stocks</i>
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A more detailed list of currently available products that can be traded using the SET gateway along with the link to SET [official website](#) for more details regarding contract specifications:

Network Connection

Access to SET_CONNECT environment is done via Site-to-Site VPN network based on IPSec standard which provides data encryption in the most standard secure method.

Another way of accessing SET_CONNECT is via SETNET3. All the necessary information is provided by the exchange to member brokers.

Given you are a member of the exchange you will have access to all the environments available (testing, production, etc.).

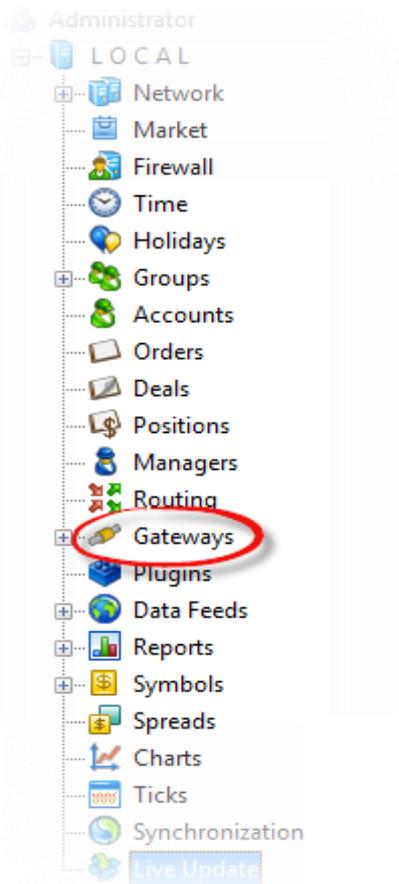
For acceptance testing the broker can use the testing environments provided by the exchange. Details on how to configure the gateway to connect to each environment are provided in this document.

Each registered broker is assigned a 4 digit member ID (i.e. 0123) which will be the basis for authentication credentials as described below:

- D0123_FIX_MD1 is the fix user for market data
- D0123_FIX_CU1 is the fix user for trading, etc.)

Each broker can request SET to create new test accounts by specifying the member ID, the protocol for order entry and market data (FIX protocol for both in our case), and types of transactions (normal orders, program trading, market marking).

Gateway Installation



1) Please create a folder named MTS-SET at **MT5_DIRECTORY**\History\Gateway where **MT5_DIRECTORY** is the installation folder for ©MetaTrader5 Platform.

2) Copy **MTS-SET.exe** module into **MT5_DIRECTORY**\History\Gateway\MTS-SET.

3) Using ©MetaTrader 5 Administrator please create a new **Symbols** folder named "SET".



4) Using ©MetaTrader 5 Administrator please create a new group (i.e. demo\demoSET) that will be used for equity trading.

NOTE: To ensure correct margin calculation for stock products set Risk Management to "for Stock Exchange".

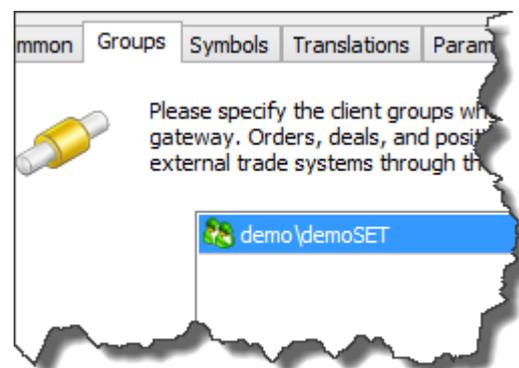


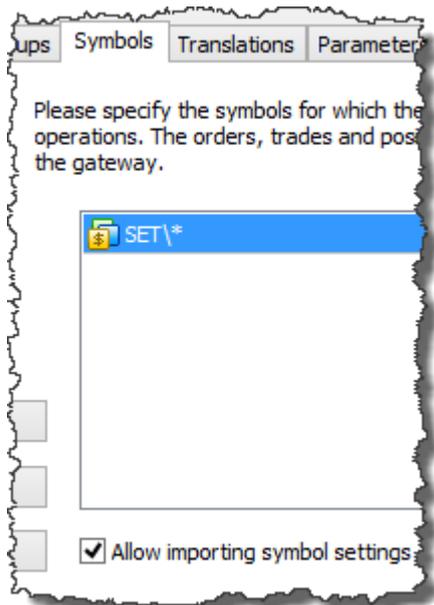
5) Add a new **MTS-SET** configuration under **Gateways** and select default parameters when prompted.

NOTE: If **MTS-SET** entry is missing from the dropdown please refer back to "Step 1)" and check that the "MTS-SET.exe" file is correctly placed in the dedicated folder.



6) Add the new group created at "Step 4)" to the **Groups** tab found under the gateway properties.





7) Add "SET*" in the Symbols tab and make sure to check "Allow importing symbol settings" setting. This will automatically import product details from the exchange.

Gateway Parameters

Parameters tab contains settings that enable the fine tuning of various technical aspects of the gateway. Their purpose and valid values are presented in detail below.

➤ **ENV - Working environment.**

An environment name identifies a network of related interconnected systems providing Market Data Services, Order Entry Services and Disaster Recovery Services for both Market Data and Trading.

There are two main categories of environments: testing and production.

TESTING ENVIRONMENTS

- **NEXT-C**
- **NEXT-A**
- **NEXT-B**
- **STAGE**

PRODUCTION ENVIRONMENTS

- **PROD1** (SETNET3 link group 1)
- **PROD2** (SETNET3 link group 2)

Parameter	Value
ab ENV	STAGE
ab MD_USER	0123_FIX_MD1
ab TR_USER	0123_FIX_CU1
ab MD_PASS	****
ab TR_PASS	****
ab ENTERING_TRADER	0123_FIX_CU1_TR
ab CLEARING_FIRM	C123
ab TR_ACCOUNT	*
ab TR_ACCOUNT_TYPE	*

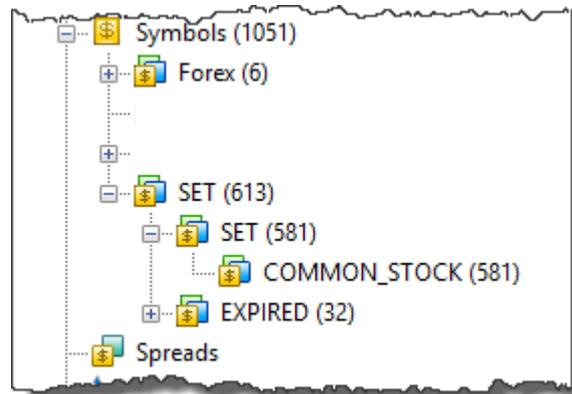
- **MD_USER** - Market data user.
- **TR_USER** - Trading User/Central User/Acting User.
- **MD_PASS / TR_PASS** - Passwords for market data and trading users.
- **ENTERING_TRADER** - Trading group user.
- **CLEARING_FIRM** - Clearing ID provided by SET.
- **TR_ACCOUNT / TR_ACCOUNT_TYPE** - Trading account details provided by SET.

SET Symbols

The gateway will automatically import tradeable products from the exchange or update existing products while it is online. The products will be imported into a tree like structure as below.

NOTE: The new SET products will be available to traders only after ©MetaTrader 5 Main Trader Server and ©MetaTrader 5 History Server are restarted. Servers can be safely restarted between trading sessions. Restarting servers takes only few seconds.

NOTE: Expired symbols will automatically be moved to **SET/EXPIRED** folder.



Symbol Group Settings

Under “Group settings” the broker controls what SET products are available to clients (products visible and tradable in ©MetaTrader 5 Client Terminal).

An example of symbol configuration for a trading group is presented here:

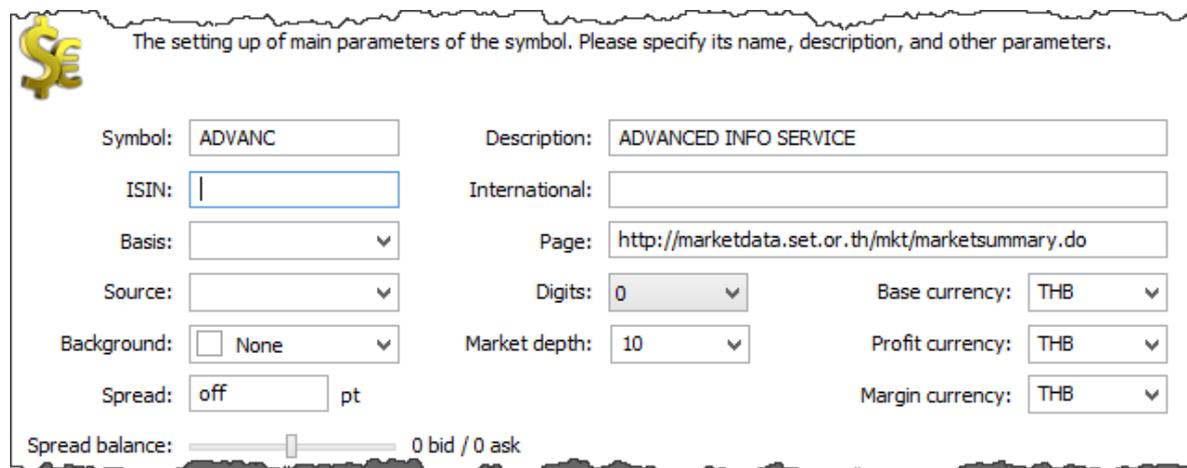
Symbol	Spread	Trade
SET\SET\COMMON_STOCK*	Default	Default

Symbol Settings and Configuration

This section will provide instructions on setting up and configuring the symbols to function correctly according to SET specifications.

NOTE: fields marked with **SET** contain values recommended by SET and should not be modified.

NOTE: fields marked with **THB** contain money value in Thai Baht.



The setting up of main parameters of the symbol. Please specify its name, description, and other parameters.

Symbol: Description:

ISIN: International:

Basis: Page:

Source: Digits: Base currency:

Background: Market depth: Profit currency:

Spread: pt Margin currency:

Spread balance: 0 bid / 0 ask

Symbol – Stock ticker name. SET

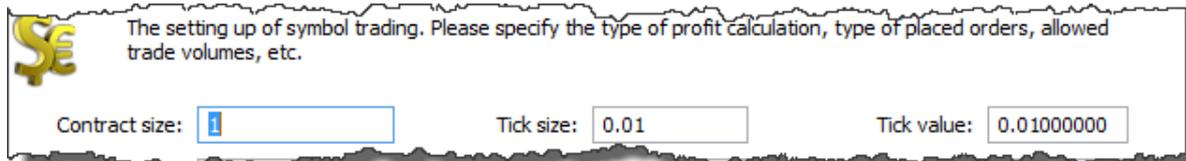
Description – short description of the product. SET

Page -link to official SET products page.

Digits - number of digits after the decimal point. SET

Market depth – specify the number of levels of book depth displayed in the terminal.

All currency - SET demands that all the currency fields must be Thai Baht.



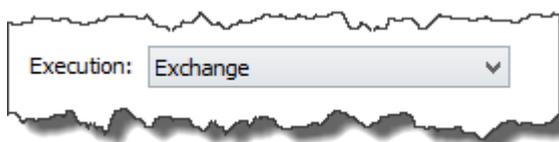
The setting up of symbol trading. Please specify the type of profit calculation, type of placed orders, allowed trade volumes, etc.

Contract size: Tick size: Tick value:

Contract size - contract multiplier. SET

Tick size - minimum tick change. SET

Tick value - the money value for one tick. SET



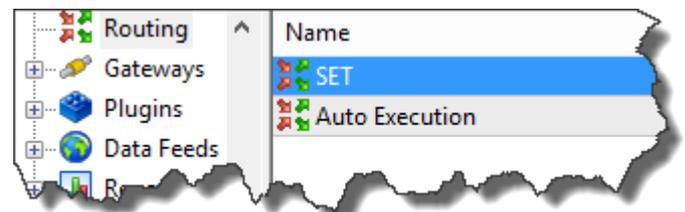
Execution:

Execution – “Exchange” states that orders for this product will be processed by an external exchange as opposed to being processed by the ©MetaTrader 5 platform.

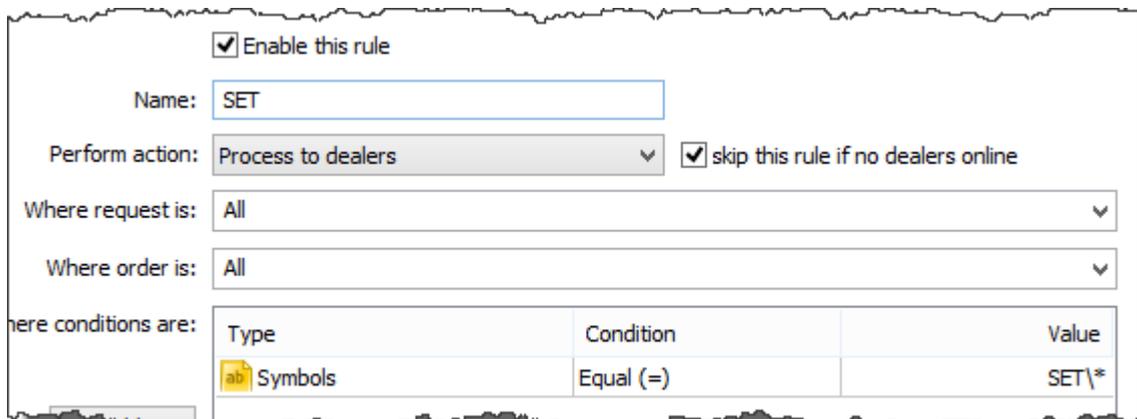
Routing

A new “Routing” rule will need to be added and configured as shown below. The SET rule should be before “Auto Execution” rule.

The rule will instruct the ©MetaTrader5 Platform to send SET orders to the gateway for correct processing.



The “Common” of the routing rule:



Enable this rule

Name:

Perform action: skip this rule if no dealers online

Where request is:

Where order is:

Where conditions are:

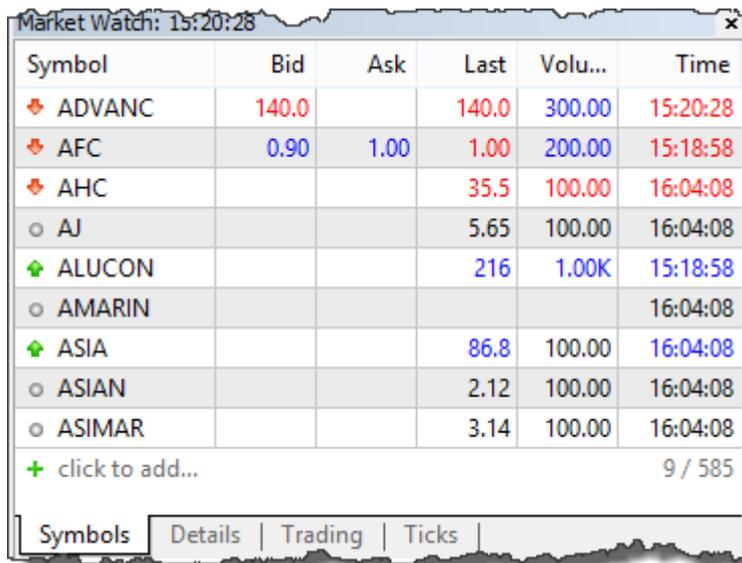
Type	Condition	Value
ab Symbols	Equal (=)	SET*

The "Dealers" tab of the Routing rule:

Login	Name
3	MTS-SET

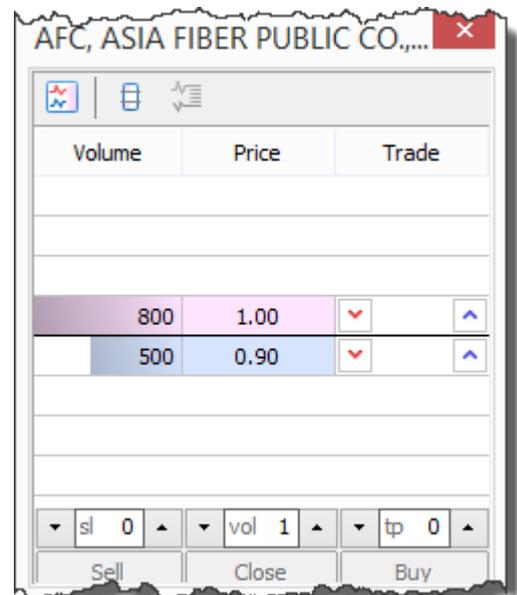
NOTE: rule definition is mandatory for a correct processing of SET stocks orders.

Trading Stocks with MetaTrader 5 Terminal



Symbol	Bid	Ask	Last	Volu...	Time
ADVANC	140.0		140.0	300.00	15:20:28
AFC	0.90	1.00	1.00	200.00	15:18:58
AHC			35.5	100.00	16:04:08
AJ			5.65	100.00	16:04:08
ALUCON			216	1.00K	15:18:58
AMARIN					16:04:08
ASIA			86.8	100.00	16:04:08
ASIAN			2.12	100.00	16:04:08
ASIMAR			3.14	100.00	16:04:08
+ click to add...					9 / 585

Market Watch (left) window displays a list of SET listed stocks along with latest Bid, Ask, Last Trade Price and Last Trade Volume.



Volume	Price	Trade
800	1.00	
500	0.90	

Depth of Market (right) window shows a one level deep prices book for a SET stock.



Symbol	Value
AFC, ASIA FIBER PUBLIC CO.,LTD	
o Tick Size	0.05
o Tick Value	0.05000
o Lower Limit	5.95
o Upper Limit	11.00
o Bid	0.90
o Ask	1.00
o Last	1.00
o Last High	1.10
o Last Low	0.85
o Price Change	17.65%
o Volume	200.00
o Open Price	0.85
o Average Weighted Price	0.89

Details (left) window displays additional statistics provided by the exchange about a SET stock product including Price Limits, Opening Price and real-time Price Change as percentage.

Gateway log

The section below explains in more detail the journal entries created as an order is processed by the ©SET Gateway and sent to SET_CONNECT.

©SET Gateway Journal entries as a new order is processed.

Gateway	'0'->'1001': request #10360420 received (#2988171 exchange buy 1.00 S50H16 at market)
Gateway	'1001': request #10360420 answered - Placed (#2988171 exchange buy 1.00 S50H16 at market)
Gateway	execution send complete - added order #2988171, buy 1.00 S50H16 at market [based on order 'ON-2-1444894061851-1']

Each detail is explained below:

- #2988171: is the ©MetaTrader 5 Platform order number.
- '0' -> '1001'
 - '0' is the Dealer ID (in this case the client itself placed the order).
If dealer 7832 places an order on behalf of trader 1001 this value will be '7832'.
 - 1001 is the trader ID as assigned by ©MetaTrader 5 Platform.
- Second line indicates that the request was accepted by the Gateway and sent to SET but not yet executed.
- Third line indicates that the order sent via the gateway was successfully received and executed by SET and the SET_CONNECT order number is ON-2-1444894061851-1.