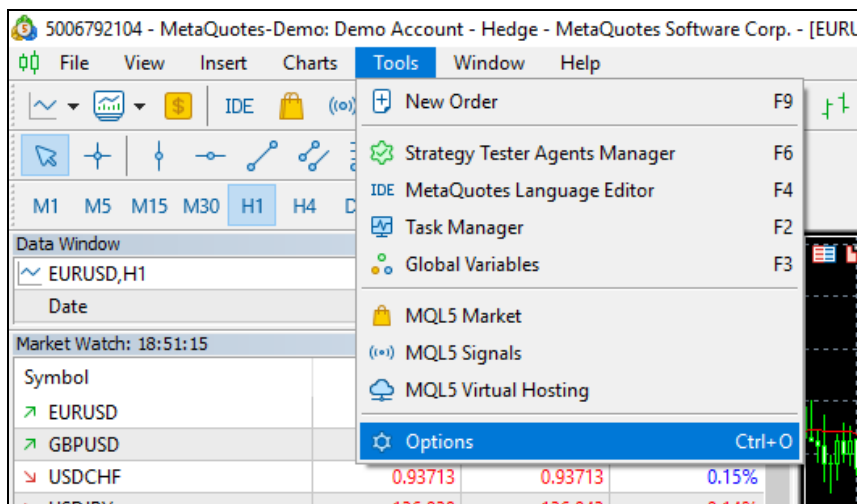


CONNECTOR

User Manual

1. Configuring the MT5 terminal

1.1. In the terminal window, in the menu bar, select **Tools** → **Options** (or press **Ctrl+O**).

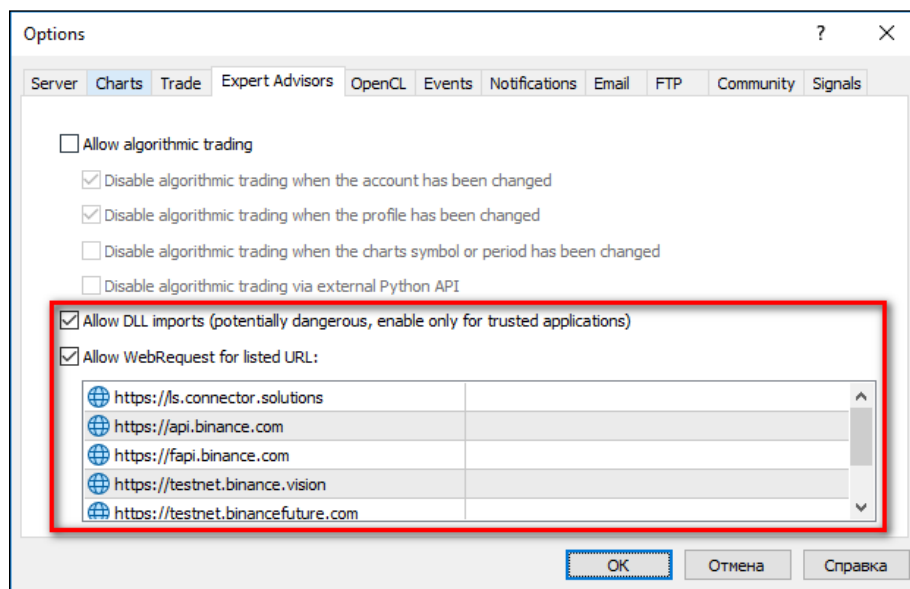


1.2. In the **Options** window select the **Expert Advisors** tab and make sure the following options are selected:

- **Allow DLL imports;**
- **Allow WebRequest for listed URL.**

For the latter option add the following URLs:

- 1.2.1. Connector Solutions server URL <https://ls.connector.solutions> - required;
- 1.2.2. Binance API endpoint URLs – required if you are going to use the CONNECTOR to copy trades to Binance:
 - 1.2.2.1. Spot – at least one of the URLs: <https://api.binance.com>, <https://api1.binance.com>, <https://api2.binance.com>, <https://api3.binance.com>, <https://api4.binance.com>;
 - 1.2.2.2. USDⓈ-M Futures: <https://fapi.binance.com>;
 - 1.2.2.3. Spot Test Network: <https://testnet.binance.vision>;
 - 1.2.2.4. USDⓈ-M Futures Test Network: <https://testnet.binancefuture.com>;
- 1.2.3. KuCoin API endpoint URLs – required if you are going to use the CONNECTOR to copy trades to KuCoin:
 - 1.2.3.1. Spot: <https://api.kucoin.com>;
 - 1.2.3.2. Futures: <https://api-futures.kucoin.com>;
 - 1.2.3.3. Spot sandbox: <https://openapi-sandbox.kucoin.com>;
 - 1.2.3.4. Futures sandbox: <https://api-sandbox-futures.kucoin.com>;

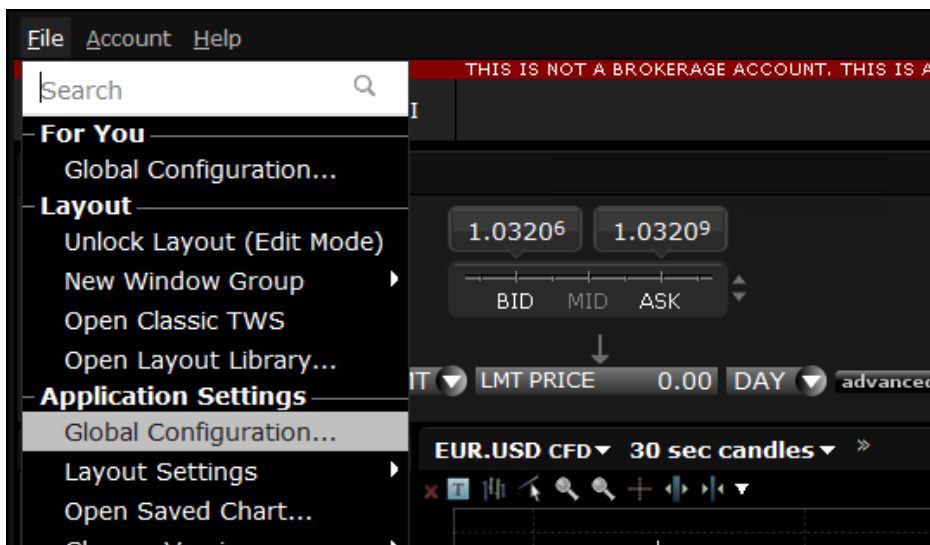


1.3. Click the **OK** button to save the changes.

2. Configuring the IB terminal (TWS)

The following steps are only necessary if you are going to use the CONNECTOR to copy trades to IB.

2.1. In the terminal window, in the menu bar, select **File → Global Configuration**.



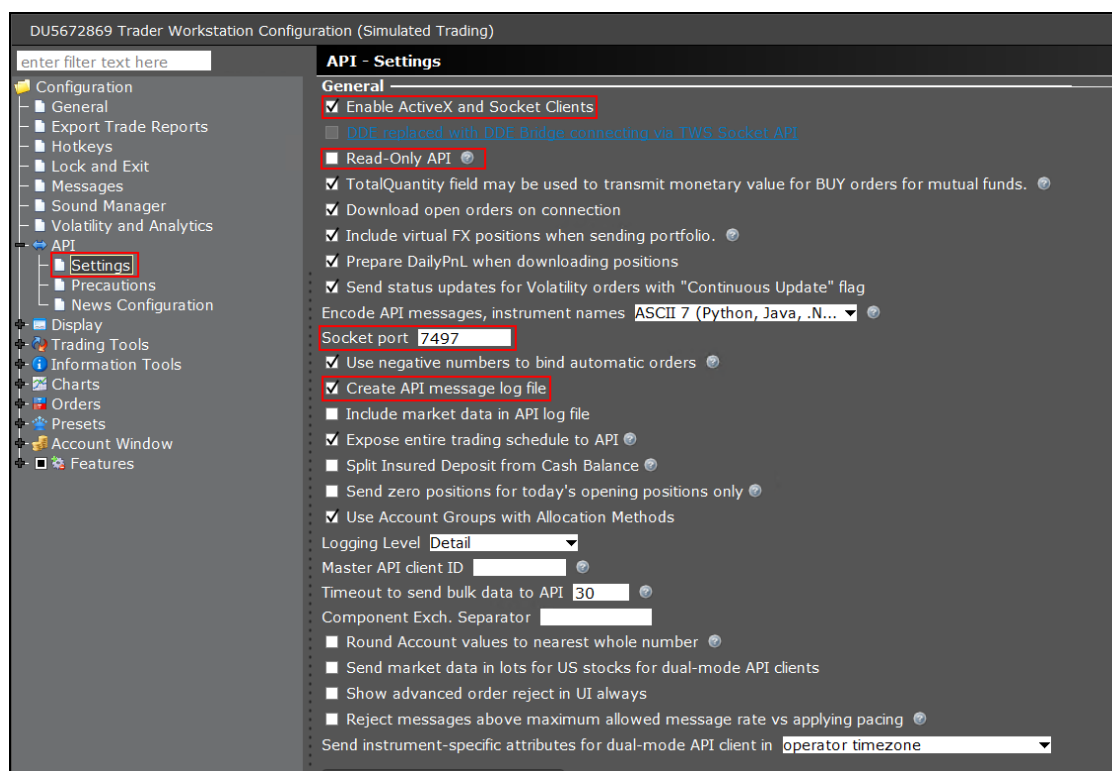
2.2. In the settings window that opens, on the left in the navigation bar, select **API → Settings**.

2.2.1. Make sure the **Read-Only API** option is not selected and the following options are selected on the right in the settings panel:

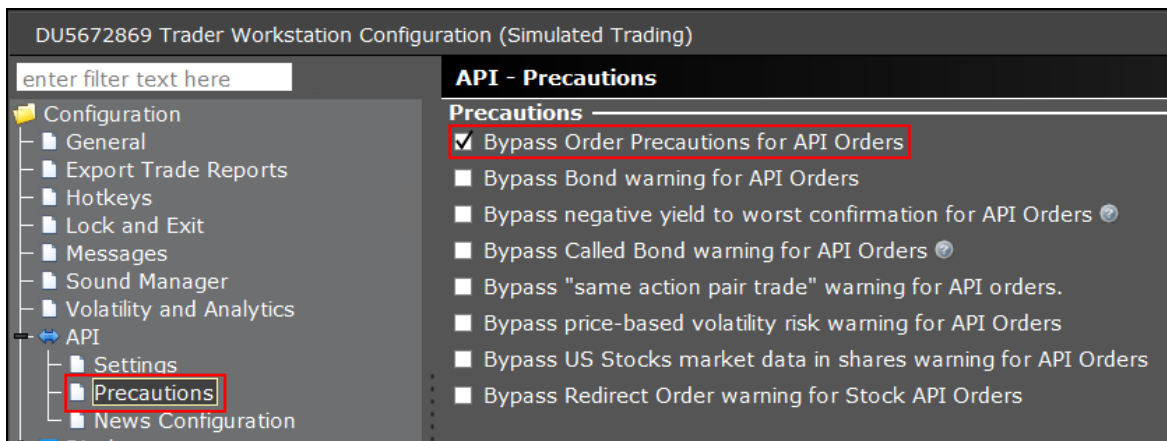
- **Enable Active-X and Socket Clients;**
- **Create API message log file**

2.2.2. Set the settings values:

- **Socket port** – the port through which the CONNECTOR will connect to the TWS;
- **Trusted IPs** – IP-addresses to which the CONNECTOR will connect. It is not required if the connection will be at 127.0.0.1.



2.3. In the navigation bar, select **API → Precautions**. Make sure the option **Bypass Order Precautions for API Orders** is selected.

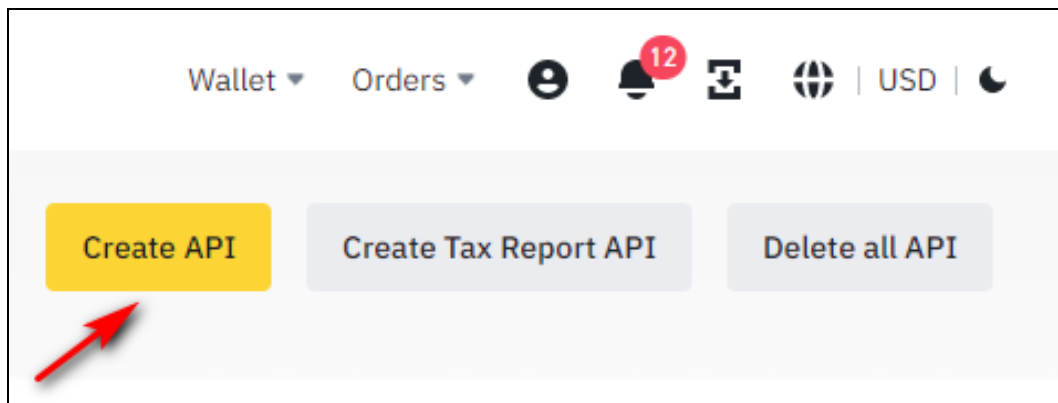


2.4. Click the **OK** button to save the changes.

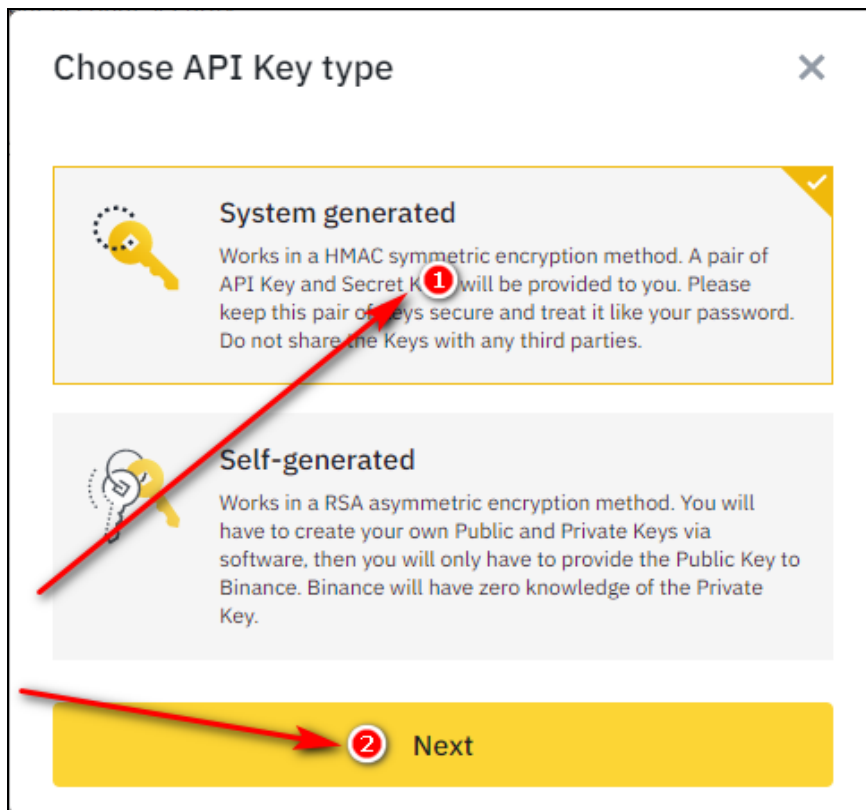
3. Configuring a Binance account

The following steps are only necessary if you are going to use the CONNECTOR to copy trades to Binance.

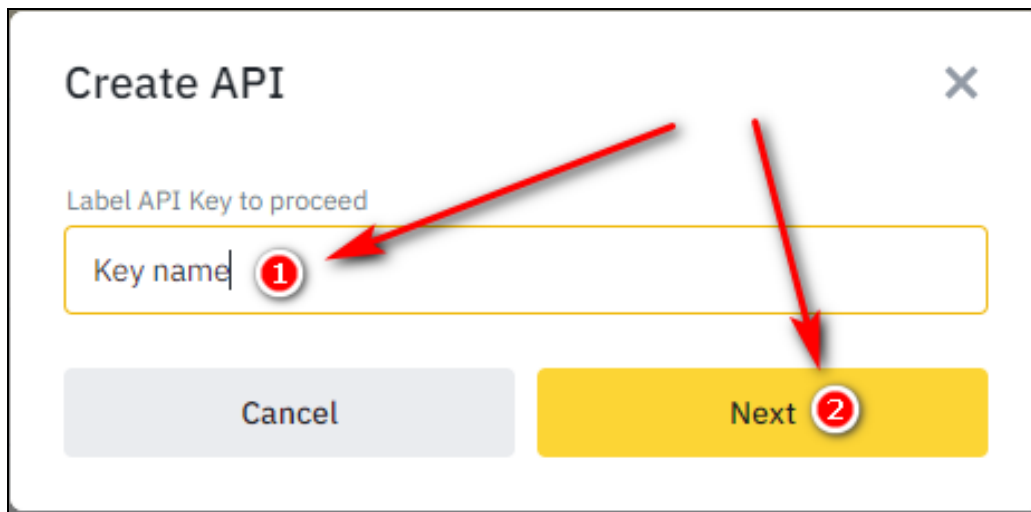
- 3.1. [Register](#) an account at the [Binance website](#) or log in to your account if it was previously registered.
- 3.2. Go to your [profile](#) and make sure the two-factor authentication (2FA) is [enabled](#).
- 3.3. Make sure you have completed the [Identity Verification](#) and your Verification Level is Verified Plus.
- 3.4. If you are going to use the USD[Ⓢ]-M Futures derivative and have not used it previously, go to the [Binance Futures web-terminal](#) and make sure that this instrument is activated.
- 3.5. Create an API Key.
 - 3.5.1. Go to the [API management page](#) and click the **Create API** button:



- 3.5.2. Select the **System generated** API Key type and click the **Next** button:



- 3.5.3. Enter an arbitrary API Key label and click the **Next** button:



Create API [X]

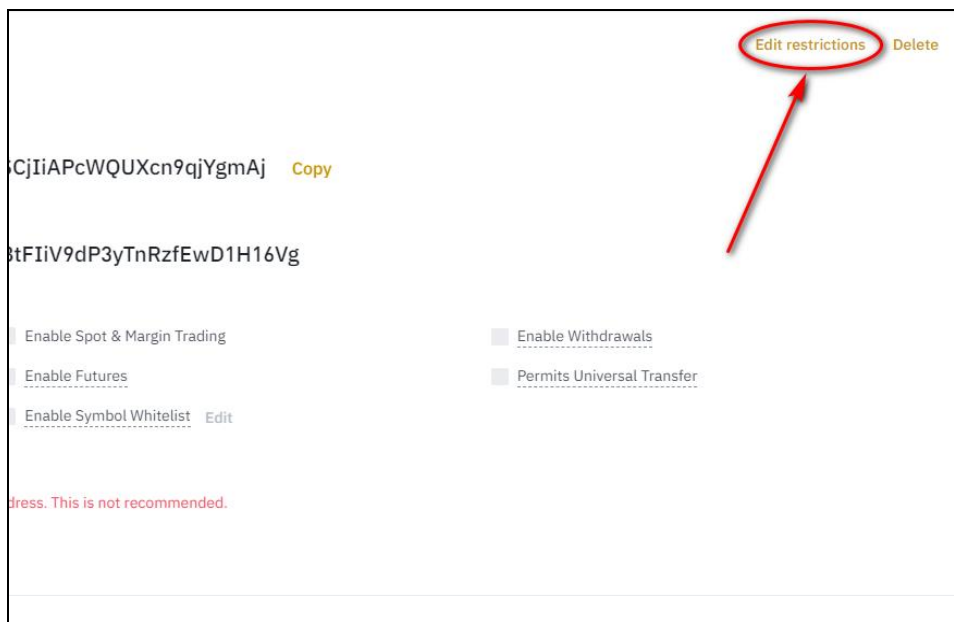
Label API Key to proceed

Key name 1

Cancel Next 2

3.5.4. Pass a security check including CAPTCHA and 2FA.

3.5.5. Click **Edit restrictions**



Edit restrictions Delete

CjIiAPcWQUXcn9qjYgmAj Copy

tFIiV9dP3yTnRzfEwD1H16Vg

Enable Spot & Margin Trading Enable Withdrawals

Enable Futures Permits Universal Transfer

Enable Symbol Whitelist Edit

dress. This is not recommended.

3.5.6. Make sure that the API functions you need are enabled: **Futures** and/or **Spot trading**. Select the **Unrestricted** IP access option to allow using the key from any IP address. Click the **Save** button. Copy the **API Key** and the **Secret Key** and keep them in a safe place.



HMAC Key name

API Key: YVsfKew6cfJTTrV6iI7ijBw6xIpzuyb2eKYbhnrdGDBSCjIiAPcWQUXcn9qjYgmAj Copy

Secret Key: n8ZBQn9qwoCAvc3ktWp1DvZgbsYfxuo6YPZOnC0BtFIiV9dP3yTnRzfEwD1H16Vg

API restrictions

☒ Enable Reading ☒ Enable Spot & Margin Trading ☐ Enable Withdrawals

☐ Enable Margin Loan, Repay & Transfer ☒ Enable Futures ☐ Permits Universal Transfer

☐ Enable European Options ☐ Enable Symbol Whitelist Edit

IP access restrictions:

1 ☒ Unrestricted (Less Secure) This API Key allows access from any IP address. This is not recommended.

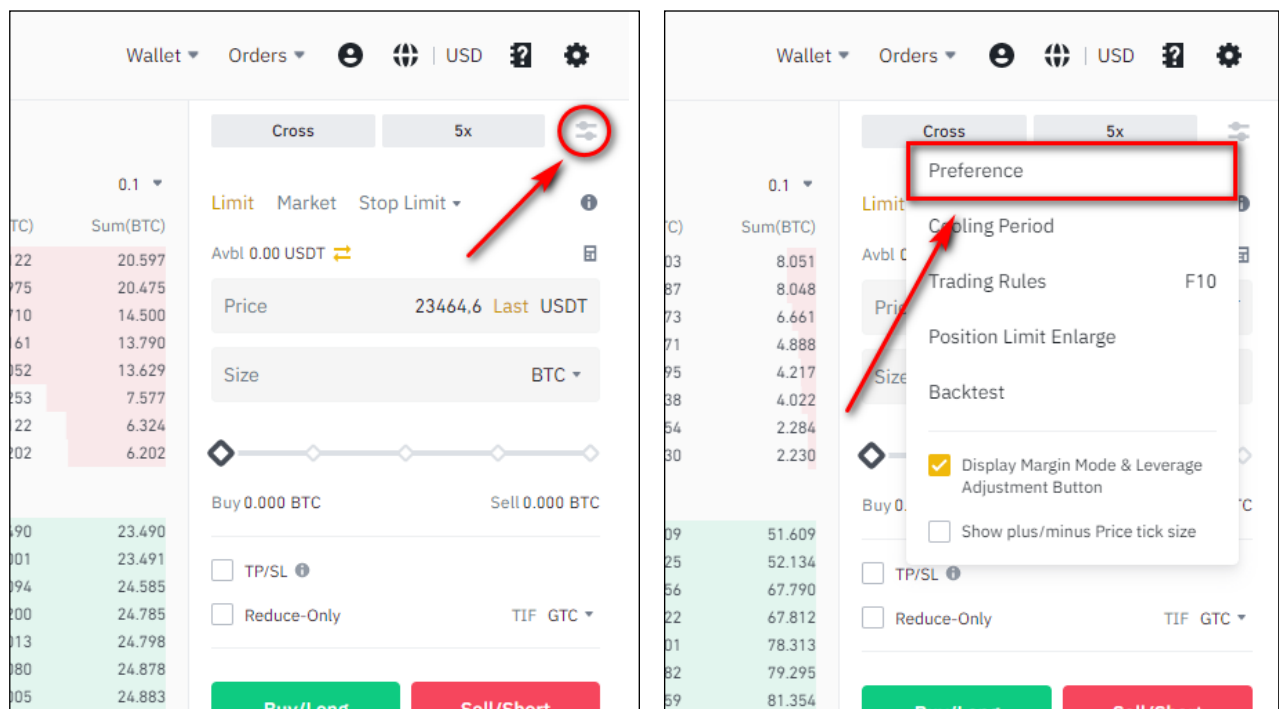
☐ Restrict access to trusted IPs only (Recommended)

2 3 4 Save Cancel

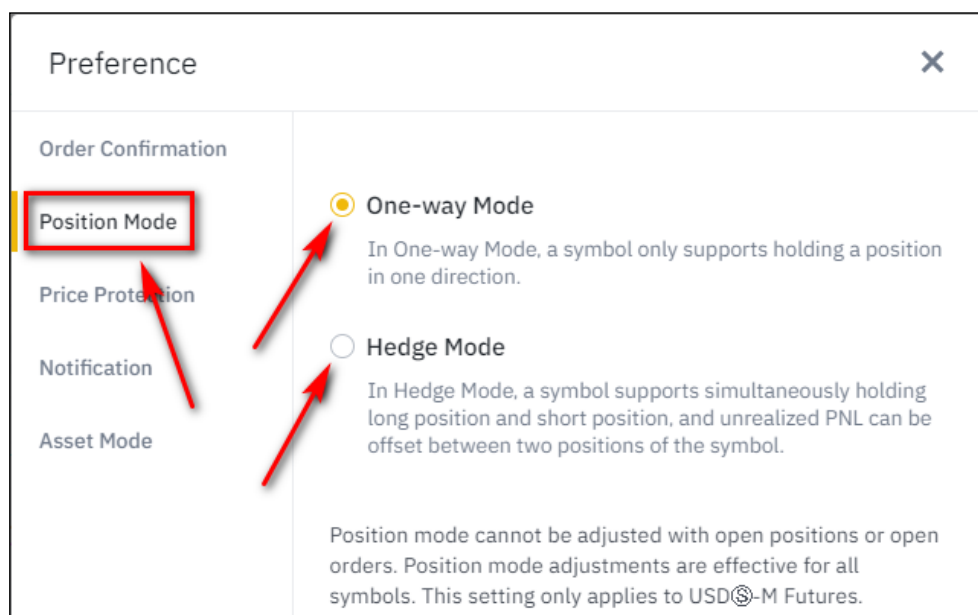
3.6. If you use Futures, the MT5 account type (netting, hedge) must match the Binance Position Mode (one-way, hedge), otherwise the CONNECTOR will not be launched.

To change the Binance Position Mode in the [Binance Futures web-terminal](#):

3.6.1. Click the settings icon in the upper right corner, and then click **Preference** in the menu that opens:

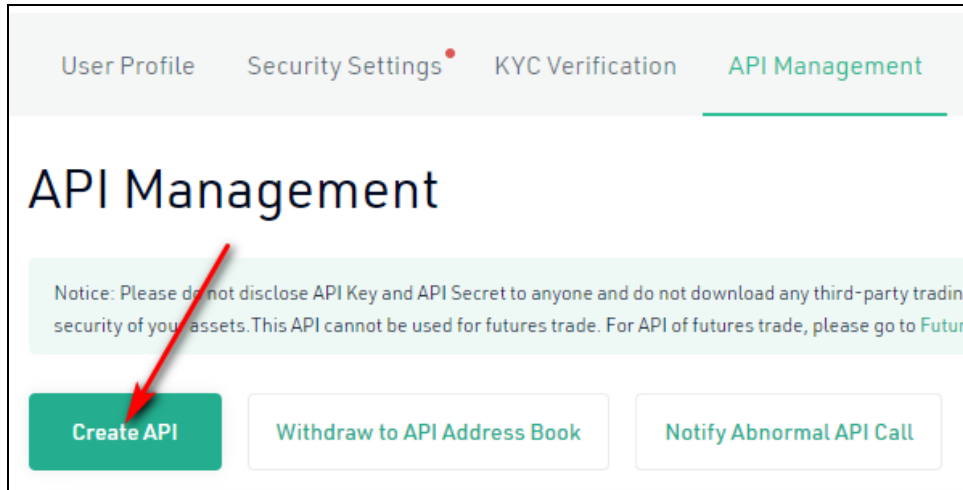


3.6.2. Select the **Position Mode** tab in the **Preference** window, and then select the required position mode:



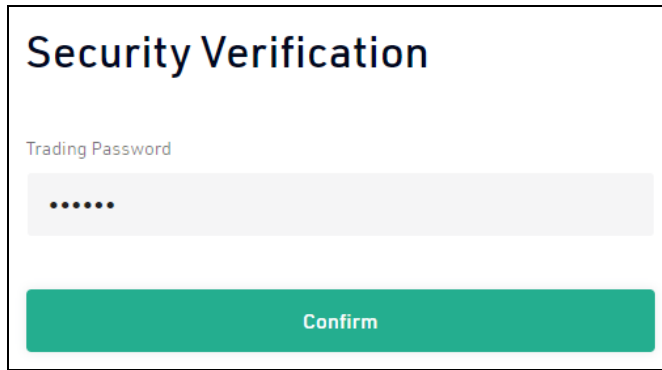
4. Configuring a KuCoin account

- 4.1. [Register](#) an account at the [KuCoin website](#) or log in to your account if it was previously registered.
- 4.2. Go to the [Account Security](#) page and make sure that [Google Verification](#) and [Trading Password](#) are configured.
- 4.3. Create an API Key.
 - 4.3.1. Go to the [API Management page](#) and click the **Create API** button:



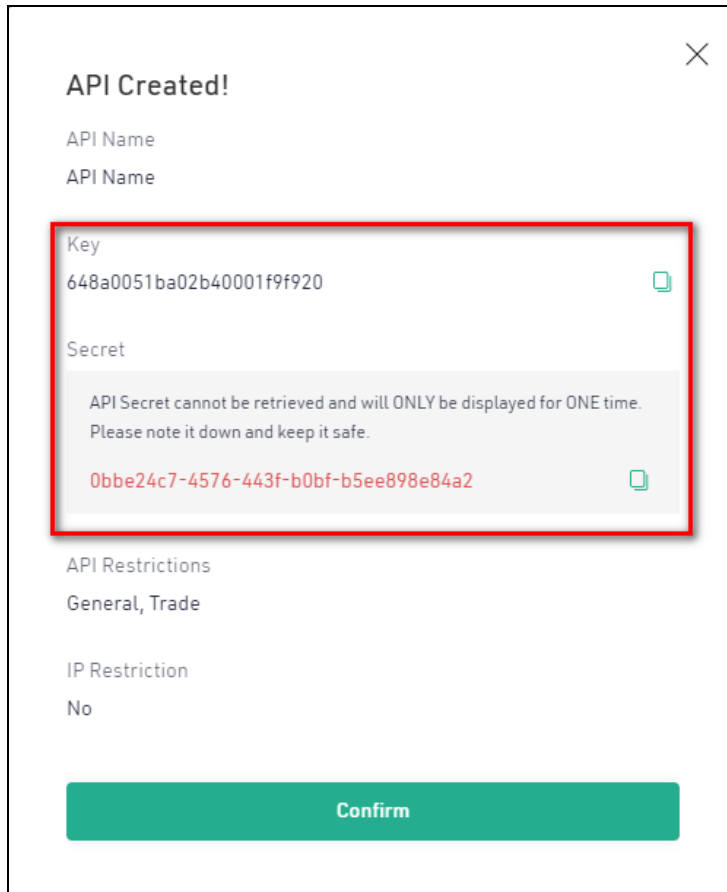
- 4.3.2. Enter an arbitrary **API Name** and an **API Passphrase**. Keep the API Passphrase in a safe place. Select the **General** and the **Trade** API Restrictions options. Select the **No IP Restriction** option to allow using the key from any IP address. Click **Next**.

4.3.3. Enter your **Trading Password** and click **Confirm**:



A dialog box titled "Security Verification". It contains a label "Trading Password" above a text input field with five dots. Below the input field is a green button labeled "Confirm".

4.3.4. Keep the API **Key** and **Secret** in a safe place along with your API **Passphrase**.



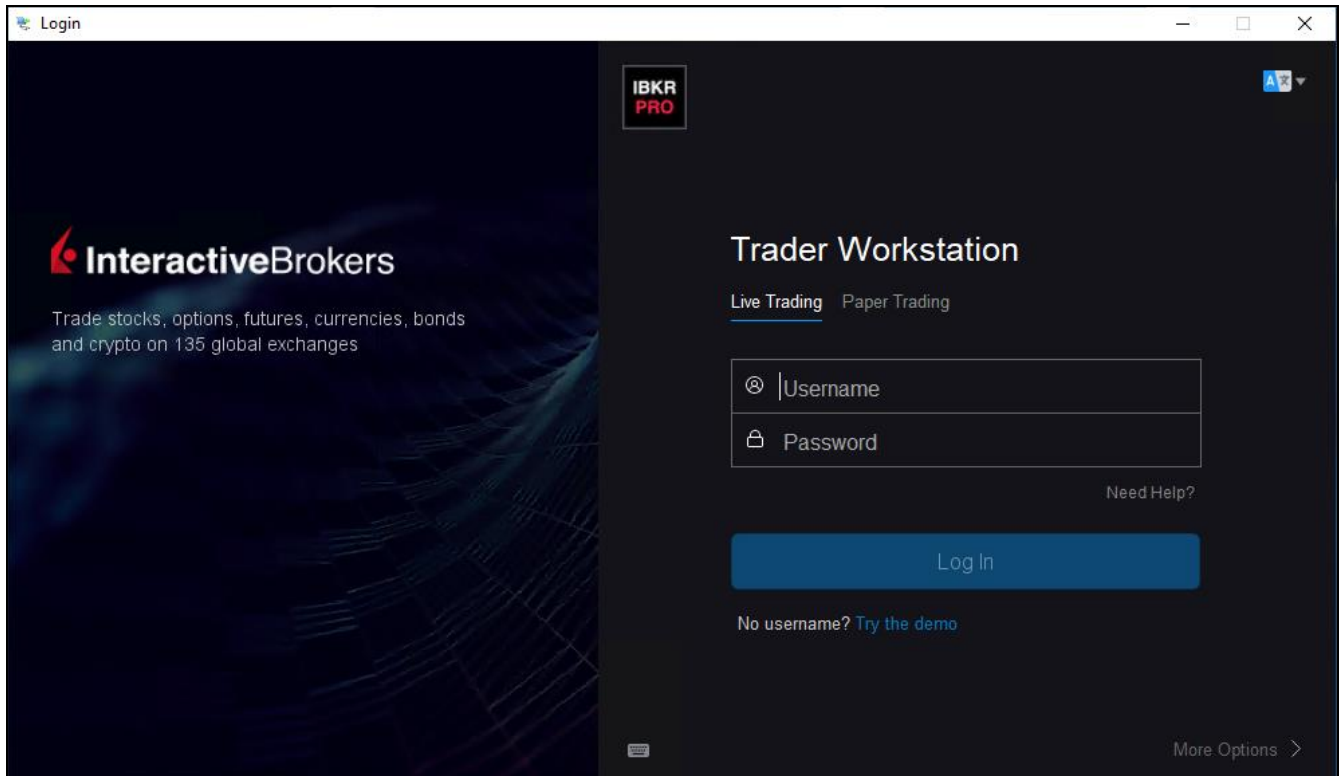
A dialog box titled "API Created!" with a close button (X) in the top right corner. It displays the following information:

- API Name: API Name
- Key: 648a0051ba02b40001f9f920 (with a copy icon)
- Secret: 0bbe24c7-4576-443f-b0bf-b5ee898e84a2 (with a copy icon)
- API Restrictions: General, Trade
- IP Restriction: No

Below the information is a green button labeled "Confirm". A red box highlights the Key and Secret fields.

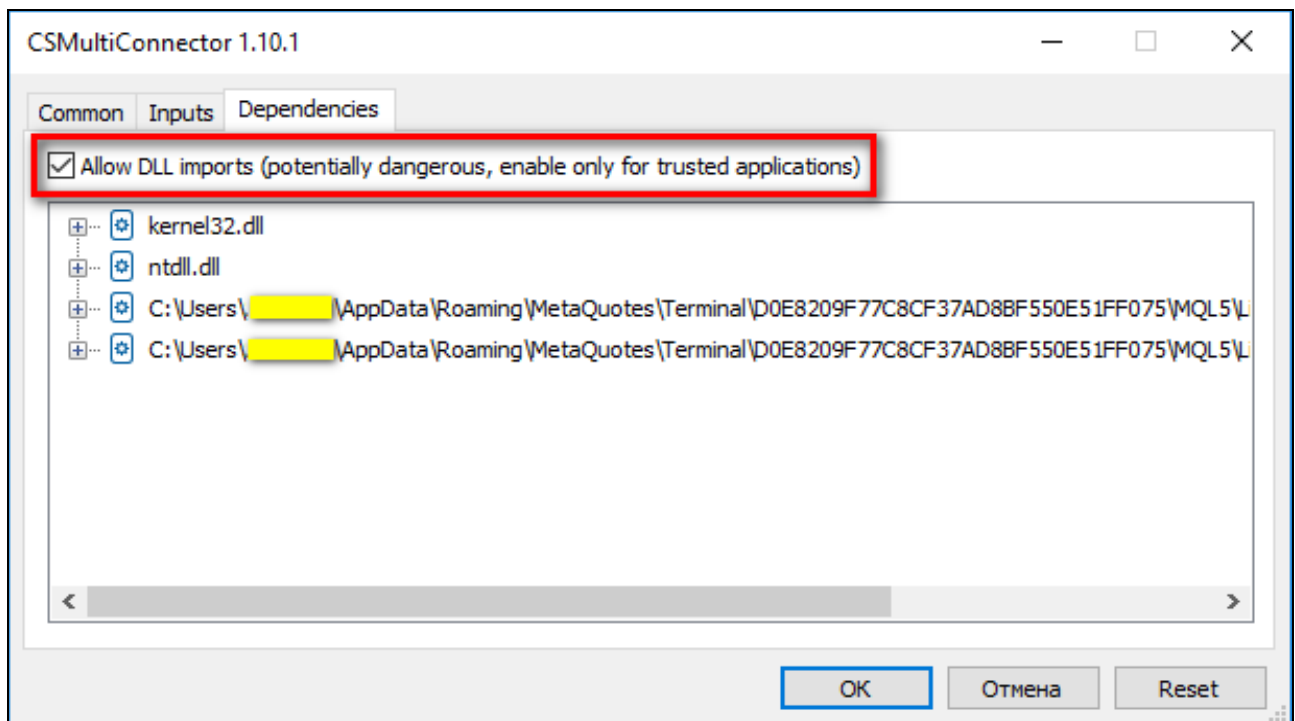
5. Launching the CONNECTOR

5.1. If you are going to use the CONNECTOR to copy trades to IB, launch the IB terminal (TWS), enter your username and password.



5.2. Launch the **Connector Solutions / CSMultiConnector** Expert Advisor.

5.2.1. Make sure the **Allow DLL imports** option is selected on the **Dependencies** tab.



5.2.2. On the **Inputs Parameters** tab set the parameter values:

5.2.2.1. **Common** – general CONNECTOR settings:

5.2.2.1.1. **Source Expert Advisor magic IDs (comma separated)** – IDs of the Expert Advisors whose trades need to be copied. To copy trades of multiple Expert Advisors separate the IDs by commas. If the value is an empty string, only trades executed

manually in the MT5 terminal will be copied.

Default value: empty string

5.2.2.1.2. **Stop when a critical error occurs** – the flag to terminate the CONNECTOR when a critical error occurs.

Default value: false

5.2.2.2. **Logging** – logging options:

5.2.2.2.1. **Show alert if an error occurs** – the flag for displaying errors in the **Alert** window. If set to false, errors will be logged without displaying the **Alert** window.

Default value: true

5.2.2.2.2. **Duplicate log messages to the Expert Log** – the flag for displaying log records on the **Experts** tab of the **Toolbox** panel. If set to false, the log entries will be written to a text log file only.

Default value: true

5.2.2.2.3. **Print information messages to the Expert Log** – the flag for displaying informational log records on the **Experts** tab of the **Toolbox** panel. If the value is set to false, informational log records will be written to a text log file only, and warning and error log records will be displayed on the **Experts** tab in accordance with the value of the **Duplicate log messages to the Expert Log** parameter.

Default value: true

5.2.2.2.4. **Max. log file size (Mbytes)** – the maximum size of the log file in megabytes. If the log size exceeds the value of this parameter, a new file will be created.

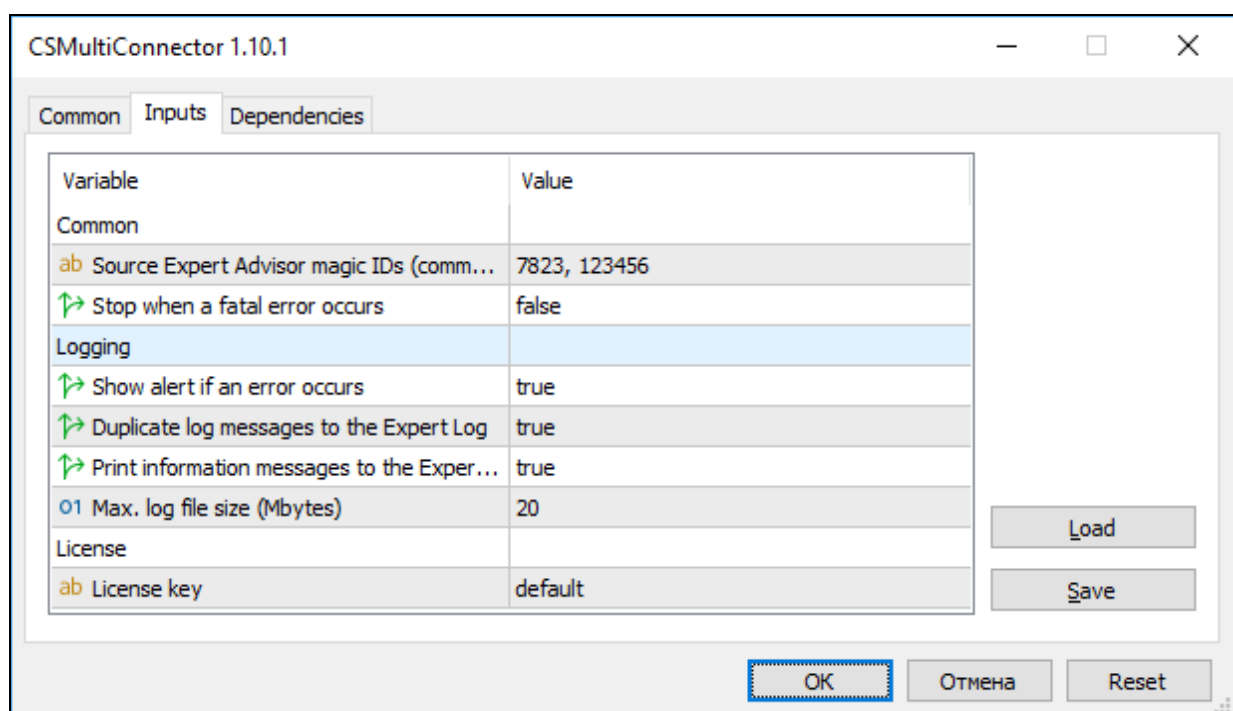
Default value: 20

5.2.2.3. **License** – licensing parameters:

5.2.2.3.1. **License key** – your license key. If the value is not set or **default**, the trial version of the CONNECTOR will be launched, unless the trial period has expired. If you have previously registered a license key, insert it in this field.

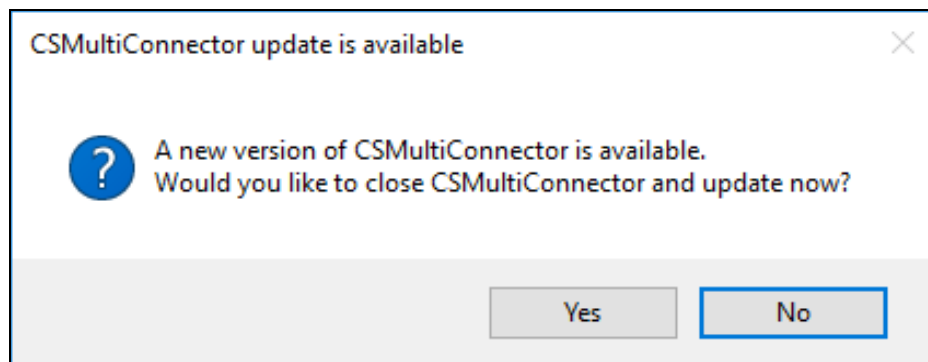
Default value: default

5.2.3. Click the **OK** button.

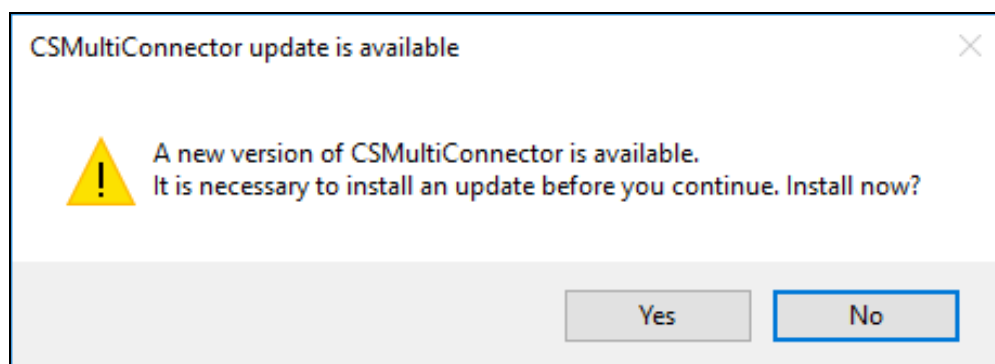


5.2.4. If a new CONNECTOR version is available, you will see a window prompting you to install the update. You can choose not to install the update and continue to use the current

version.

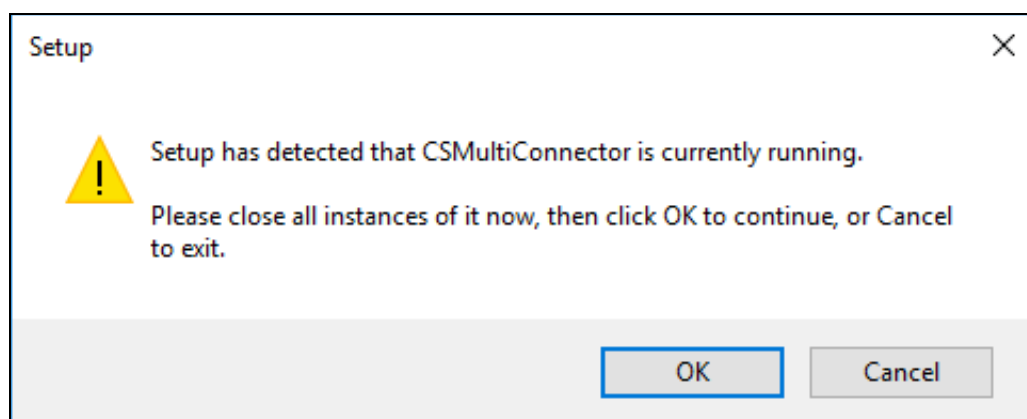


If installing the update is mandatory, then if you refuse to install the update or an error occurs when installing the update, the CONNECTOR will be closed.



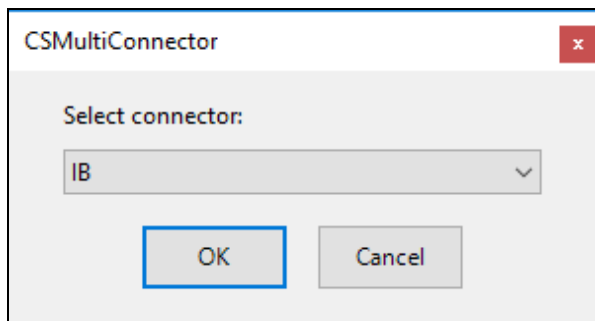
Upon receiving consent to install the update, the CONNECTOR will be closed and the installation dialog box will open. After the installation process is complete, you can start the CONNECTOR again.

Note. If such a message occurs during the installation of the update:



- then you should check whether an instance of the **Connector Solutions/CSMultiConnector** Expert Advisor is running in the MT5 terminal, and if it is running, then stop it and click OK in the installer window. If this message appears again, then restart the MT5 terminal and click OK again in the installer window.

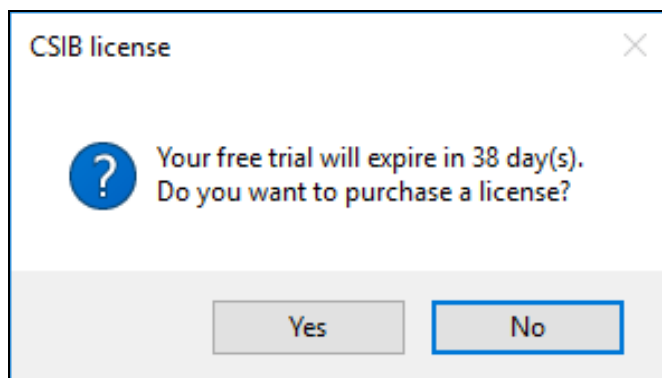
5.2.5. If the current version of the CONNECTOR is up to date, a window prompting you to choose a connector will open.



The list of connectors will contain only those connectors that are activated for your licensed or trial version. If only one connector is activated, this window will be skipped.

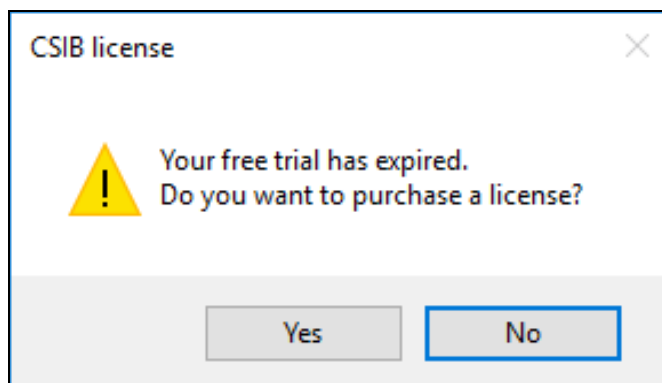
5.2.6. After selecting the connector, the license key will be checked.

5.2.6.1. If you are running the trial version (**License** → **License key** input parameter value is empty string or **default**) and it is not expired, you will see a window with a message indicating the time remaining before the trial period expires and an offer to purchase a license:



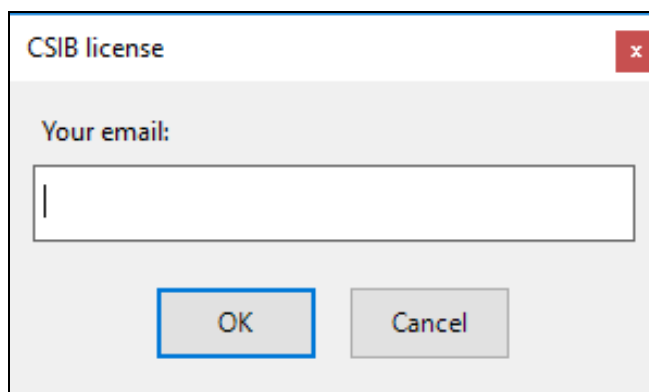
You may click **No** and continue using the trial version.

5.2.6.2. If the trial period has expired, a window will appear with the corresponding message:

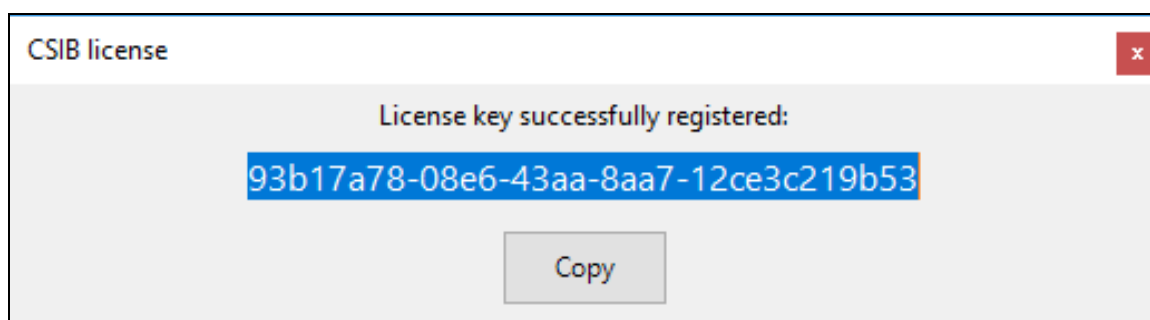


In this case, if you click **No**, the CONNECTOR will terminate its operation.

5.2.6.3. If you agree to purchase a license, a window will appear asking you to enter your email address:

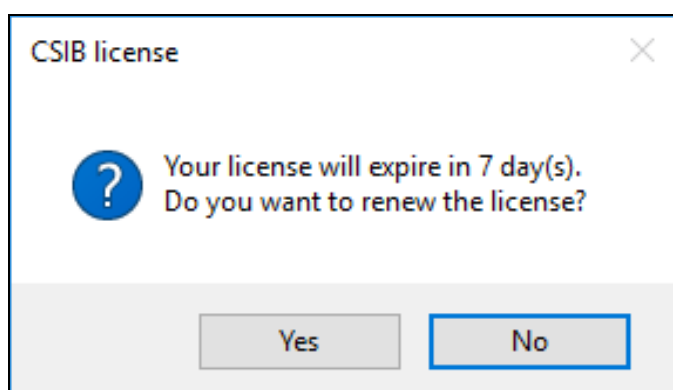
A dialog box titled "CSIB license" with a red close button in the top right corner. It contains a label "Your email:" followed by a text input field. At the bottom, there are two buttons: "OK" and "Cancel".

Enter your email and click **OK**. After a successful license key registration, a window with your new license key will open:

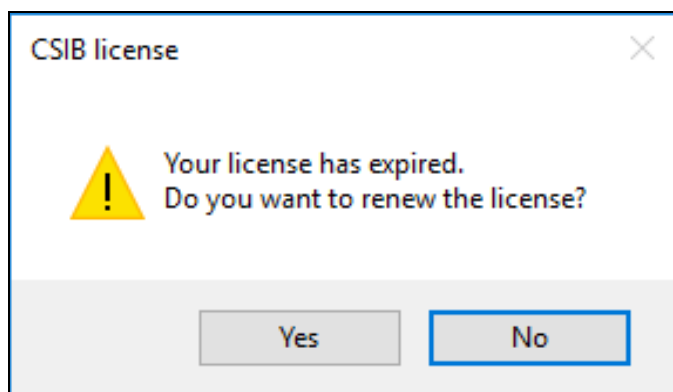
A dialog box titled "CSIB license" with a red close button in the top right corner. It displays the message "License key successfully registered:" followed by a blue highlighted text box containing the license key "93b17a78-08e6-43aa-8aa7-12ce3c219b53". Below the text box is a "Copy" button.

Keep the key in a safe place and use it at the next CONNECTOR launches as the **License** → **License key** input parameter. The CONNECTOR will continue to operate after the window is closed.

- 5.2.6.4. If the value of the **License** → **License key** input parameter is a valid license key, the full version of the CONNECTOR will be launched. If there are less than 7 days left before the license expires, a message with a proposal to renew the validity of the license key will appear. You may click **No** and proceed.

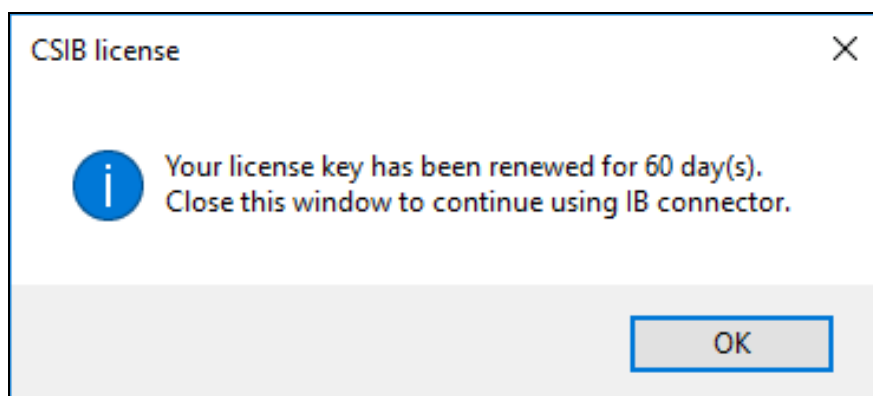
A dialog box titled "CSIB license" with a close button in the top right corner. It features a blue question mark icon and the text "Your license will expire in 7 day(s). Do you want to renew the license?". At the bottom, there are two buttons: "Yes" and "No", with the "No" button highlighted by a blue border.

- 5.2.6.5. If the license has expired, a warning with a proposal to renew the validity of the license key will appear:



In this case, if you click **No**, the CONNECTOR will terminate its operation.

5.2.6.6. Click **Yes** to renew the license. In case of successful renewal of the license key validity period, a message will be displayed indicating the period for which the key validity period was renewed:



The CONNECTOR will continue its operation as soon as the window is closed.

5.2.7. If the license check succeeded, a settings window for a selected connector will open:

5.2.7.1. IB settings window:

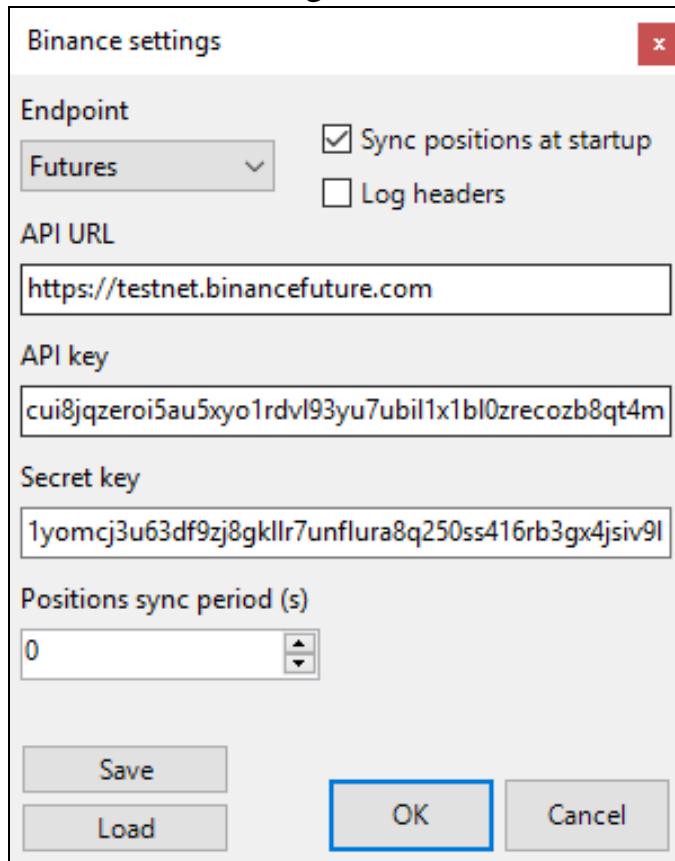
 A settings window titled "IB settings" with a close button (X) in the top right corner. The window contains several input fields and a checkbox:

- TWS IP: 127 . 0 . 0 . 1
- Port: 7497
- Client ID: 1
- Account: test
- Exchange: SMART
- Security's type: CFD (dropdown menu)
- Max. order resubmit tries: 3
- Order timeout (s): 30
- Reconnection interval (s): 300
- Positions sync period (s): 180
- Reset cache: ☐

 At the bottom, there are four buttons: "Save", "Load", "OK", and "Cancel". The "OK" button is highlighted with a blue border.

- 5.2.7.1.1. **TWS IP** – the IP address at which TWS is available for connection.
Default value: 127.0.0.1
- 5.2.7.1.2. **Port** – the socket port assigned in the TWS settings.
Default value: 7497
- 5.2.7.1.3. **Client ID** – the client ID must be unique if more than one client is connected to TWS.
Default value: 1
- 5.2.7.1.4. **Account** – the IB account trades will be allocated to.
Default value: empty string
- 5.2.7.1.5. **Exchange** - the target exchange of the contract.
Default value: SMART
- 5.2.7.1.6. **Security's type** – the type of securities of the contract. Currently, only CFD and CASH contracts are supported.
Default value: CFD
- 5.2.7.1.7. **Max. order resubmit tries** – the maximum number of attempts to place an order in IB in case of an error on the IB server side.
Default value: 3
- 5.2.7.1.8. **Order timeout (s)** – the maximum waiting time for the full execution of the order in seconds.
Default value: 30
- 5.2.7.1.9. **Reconnection interval (s)** – the time interval in seconds between repeated connection attempts in case of connection loss.
Default value: 300
- 5.2.7.1.10. **Position sync period (s)** – the periodicity of positions synchronization in seconds. Set to 0 to disable periodic positions synchronization.
Default value: 180
- 5.2.7.1.11. **Reset cache** – the flag for resetting the saved mappings between the symbols of the original trades and IB contracts. This may be necessary in case of a change in the symbol name by the broker or a change in the IB contract.
Default value: not selected

5.2.7.2. Binance settings window:



5.2.7.2.1. **Endpoint** – the Binance API endpoint type: Spot or Futures.

Default value: Spot

5.2.7.2.2. **Sync positions at startup** – the flag to synchronize positions between MT5 and Binance at startup.

Default value: not selected

5.2.7.2.3. **Log headers** – the flag to enable logging HTTP headers during the data exchange between MT5 and Binance.

Default value: not selected

5.2.7.2.4. **API URL** – the Binance API endpoint URL.

Default value: empty string

5.2.7.2.5. **API key** – previously registered Binance API key.

Default value: empty string

5.2.7.2.6. **Secret key** – a secret key associated with the API key.

Default value: empty string

5.2.7.2.7. **Position sync period (s)** – the periodicity of positions synchronization in seconds. Set to 0 to disable periodic positions synchronization.

Default value: 180

5.2.7.3. KuCoin settings window:

KuCoin settings

Endpoint
Futures

☒ Sync positions at startup
☒ Log headers

API URL
https://api-sandbox-futures.kucoin.com

API key
y7sfbs8magj03p3ql7wf7343

Secret key
f55b5c44-7658-4d37-bdd1-eb0871068c7a

Passphrase
btp35yncxt08h95fsyddley69a26jits

Quote currency
USDT

MT profit currency
USD

Positions sync period (s)
0

Save Load OK Cancel

5.2.7.3.1. **Endpoint** – the KuCoin API endpoint type: Spot or Futures.

Default value: Spot

5.2.7.3.2. **Sync positions at startup** – the flag to synchronize positions between MT5 and KuCoin at startup.

Default value: not selected

5.2.7.3.3. **Log headers** – the flag to enable logging HTTP headers during the data exchange between MT5 and KuCoin.

Default value: not selected

5.2.7.3.4. **API URL** – the KuCoin API endpoint URL.

Default value: empty string

5.2.7.3.5. **API key** – previously registered KuCoin API key.

Default value: empty string

5.2.7.3.6. **Secret key** – a secret key associated with the API key.

Default value: empty string

5.2.7.3.7. **Passphrase** – a passphrase associated with the API key.

Default value: empty string

5.2.7.3.8. **Quote currency** – KuCoin symbol quote currency.

Default value: empty string

5.2.7.3.9. **MT profit currency** – MT5 symbol profit currency.

Default value: empty string

5.2.7.3.10. **Position sync period (s)** – the periodicity of positions synchronization in seconds. Set to 0 to disable periodic positions synchronization.

Default value: 180

5.2.8. Click **OK** in a settings window.

6. CONNECTOR for IB features

- 6.1. Positions will be synchronized between MT5 and IB at the CONNECTOR startup by submitting orders to IB, bringing Binance positions in line with MT5 positions.
For example, your MT5 positions are: 0 EURUSD, 1000 JPYUSD, and your IB positions are: 2000 EURUSD, 0 JPYUSD. During the synchronization, two market orders will be executed from your IB account: sell 2000 EURUSD and buy 1000 JPYUSD.
- 6.2. An attempt to synchronize positions between MT5 and IB will be performed in the same way if the connection to TWS is restored after the connection loss while the CONNECTOR is running.
- 6.3. If the **Position sync period (s)** setting value is greater than 0, positions will be synchronized periodically. The frequency of synchronizations is defined by the setting value.
- 6.4. Only netting accounts are supported, since IB accounts allow only one position on a selected instrument in any direction.
- 6.5. It is possible to work with only one type of the IB contract securities (**Security's type** setting) at a time. If you need to switch to another type of securities, you must stop the CONNECTOR, close all positions in MT5 and IB, and then start the CONNECTOR again. Otherwise, during synchronization, all positions opened in the MT5 terminal will be duplicated in IB with the selected type of the IB contract securities, and IB positions that do not have a match in the MT5 terminal will be closed.

7. CONNECTOR for Binance features

- 7.1. If the **Sync positions at startup** option is selected, positions will be synchronized between MT5 and Binance at the CONNECTOR startup by submitting orders to Binance, bringing Binance positions in line with MT5 positions.
For example, the **Endpoint** setting value is **Futures**, your MT5 positions are: 0 BTCUSD, 0.1 ETHUSD, and your Binance futures positions are: 0.01 BTCUSDT, 0 ETHUSDT. During the synchronization, two market orders will be executed from your Binance account: sell 0.01 BTCUSDT and buy 0.1 ETHUSDT.
- 7.2. An attempt to synchronize positions between MT5 and Binance will be performed in the same way if any error occurs during data exchange between MT5 and Binance.
- 7.3. If the **Position sync period (s)** setting value is greater than 0, positions will be synchronized periodically. The frequency of synchronizations is defined by the setting value.

8. CONNECTOR for KuCoin features

- 8.1. If the **Sync positions at startup** option is selected, positions will be synchronized between MT5 and KuCoin at the CONNECTOR startup by submitting orders to KuCoin, bringing KuCoin positions in line with MT5 positions.
For example, the **Endpoint** setting value is **Spot**, the **Quote currency** setting value is **USDT**, the **MT profit currency** setting value is **USD**, your MT5 positions are: 0 BTC, 0.1 ETH, and your KuCoin trading account balance is: 0.01 BTC, 0 ETH, 100000 USDT. During the synchronization, two market orders will be executed from your KuCoin trading account: sell 0.01 BTC and buy 0.1 ETH.
- 8.2. An attempt to synchronize positions between MT5 and KuCoin will be performed in the same way if any error occurs during data exchange between MT5 and KuCoin.
- 8.3. If the **Position sync period (s)** setting value is greater than 0, positions will be synchronized periodically. The frequency of synchronizations is defined by the setting value.

8.4. If the **Endpoint** setting value is **Spot**, make sure that your trading account has only the currencies that you are going to trade and the currency specified in the **Quote currency** setting.

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