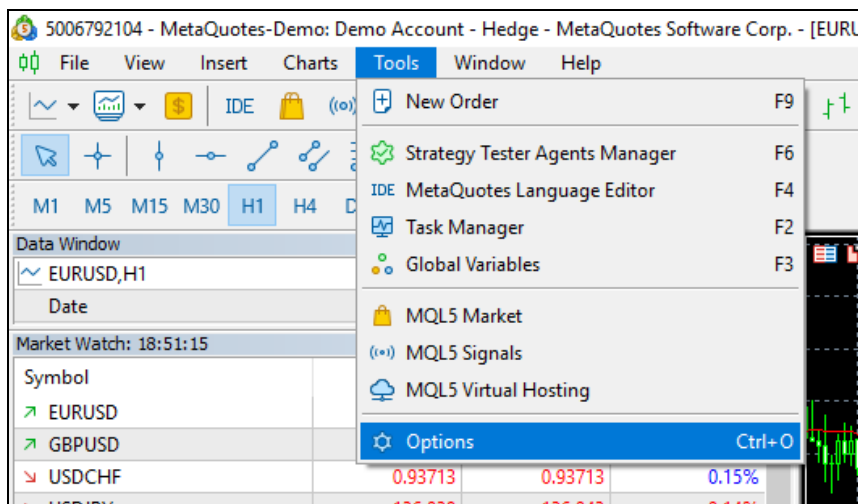


# CONNECTOR

## User Manual

### 1. Configuring the MT5 terminal

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

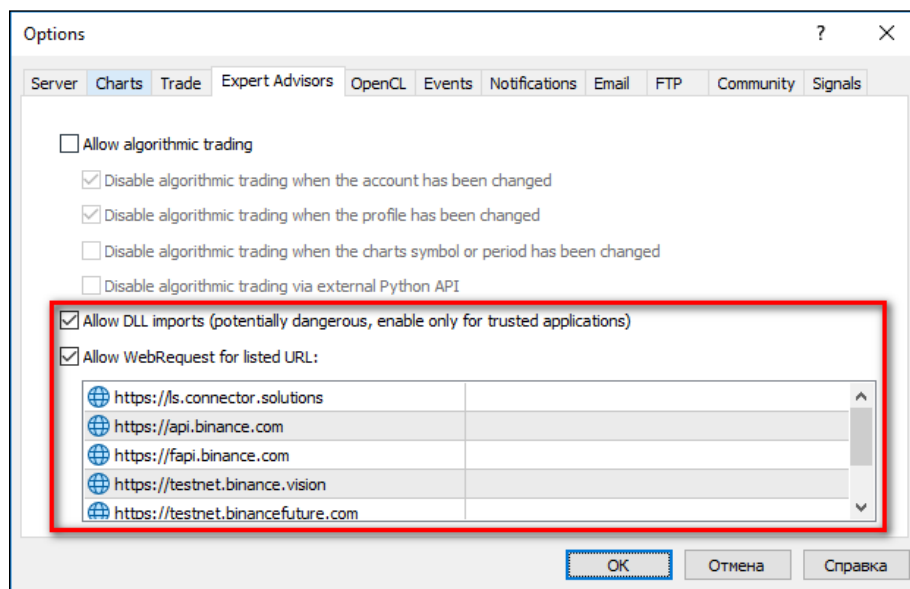


1.2. In the **Options** window select the **Expert Advisors** tab and make sure the following options are selected:

- **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>;
- 1.2.4. Kraken API endpoint URLs – required if you are going to use the CONNECTOR to copy trades to Kraken:
  - 1.2.4.1. Spot: <https://api.kraken.com>;
  - 1.2.4.2. Futures: <https://api.futures.kraken.com>;
  - 1.2.4.3. Futures sandbox: <https://demo-futures.kraken.com>;

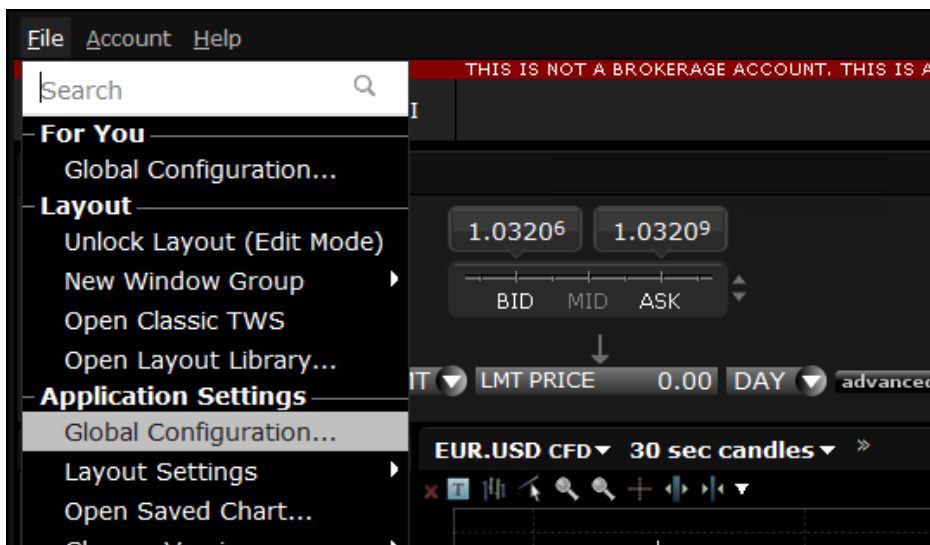


1.3. Click the **OK** button to save the changes.

## 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**.



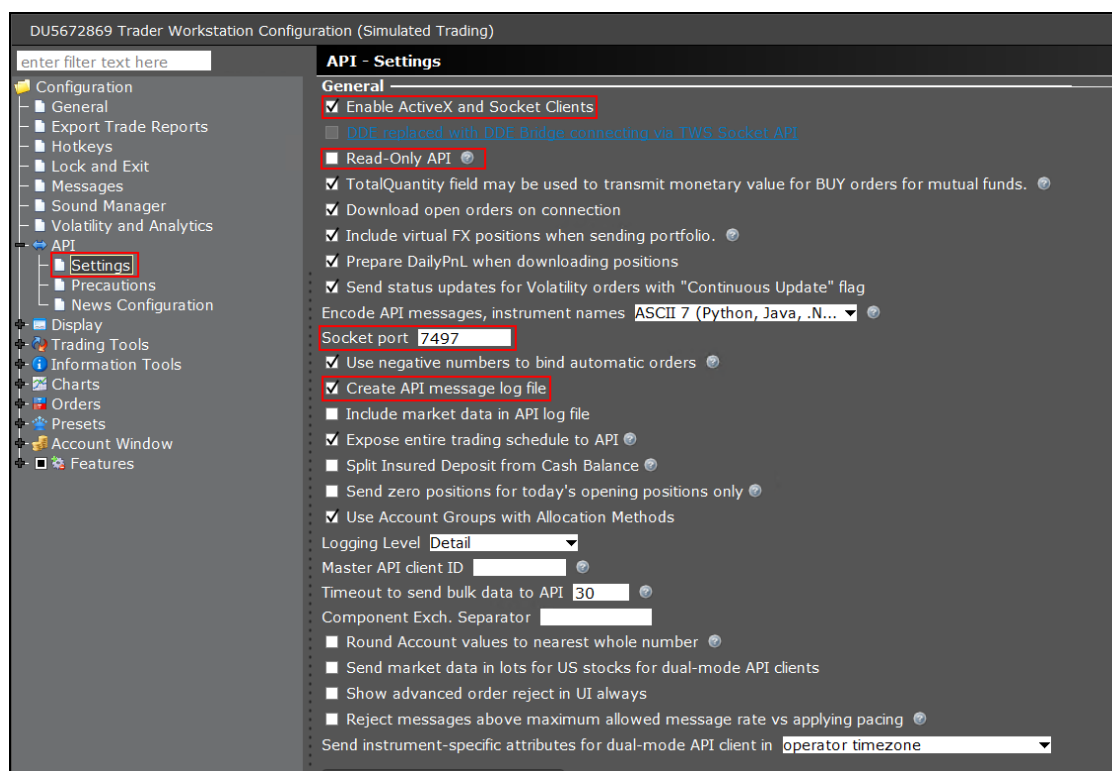
2.2. In the settings window that opens, on the left in the navigation bar, select **API → Settings**.

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:

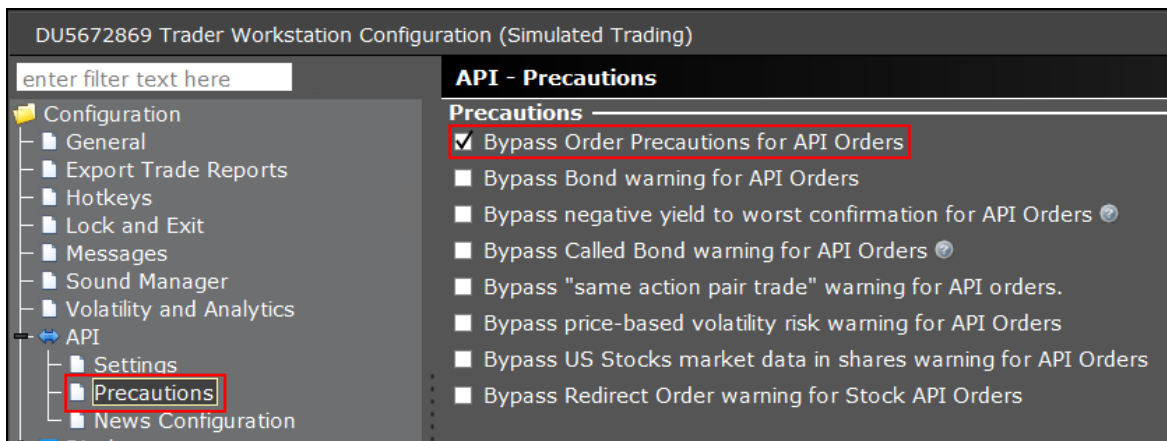
- **Enable Active-X and Socket Clients;**
- **Create API message log file**

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.

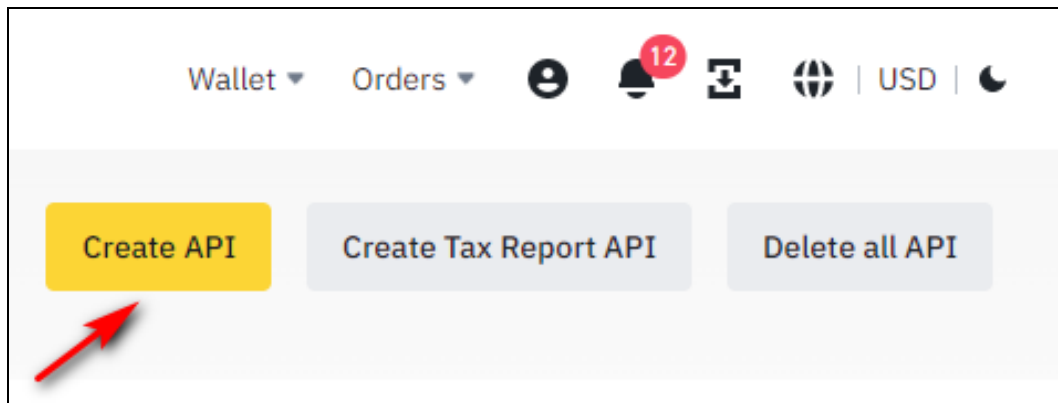


2.4. Click the **OK** button to save the changes.

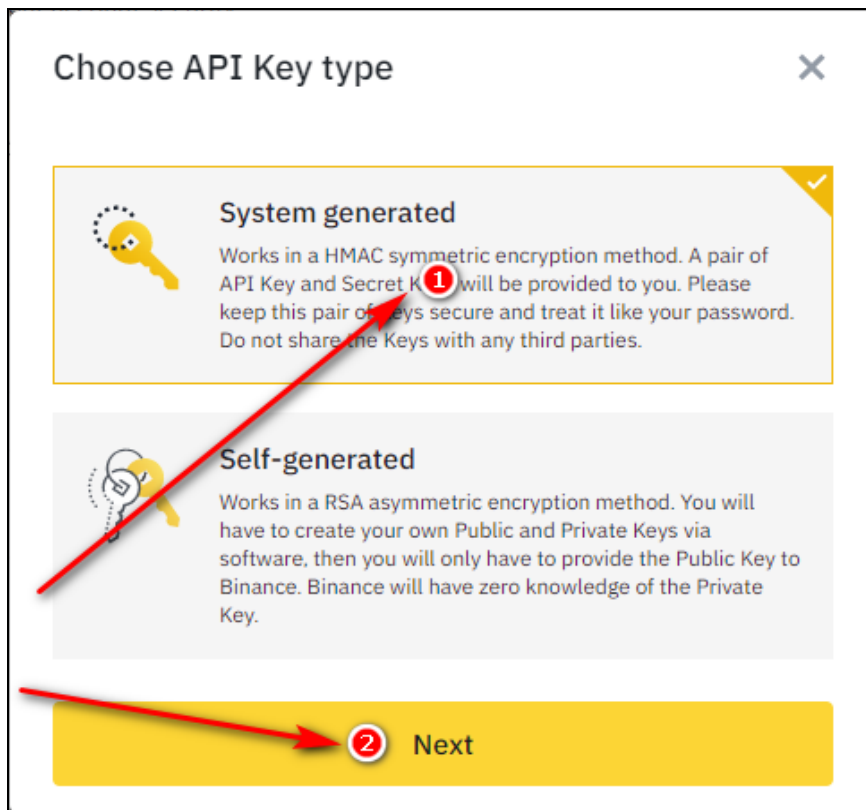
### 3. Configuring a Binance account

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

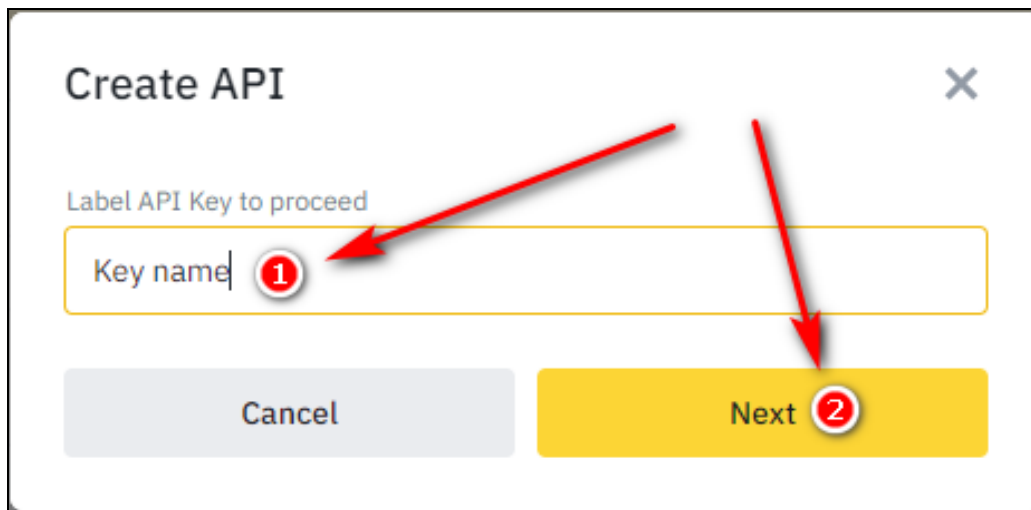
- 3.1. [Register](#) an account at the [Binance website](#) or log in to your account if it was previously registered.
- 3.2. Go to your [profile](#) and make sure the two-factor authentication (2FA) is [enabled](#).
- 3.3. Make sure you have completed the [Identity Verification](#) and your Verification Level is Verified Plus.
- 3.4. If you are going to use the USD $\text{\textcircled{S}}$ -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]

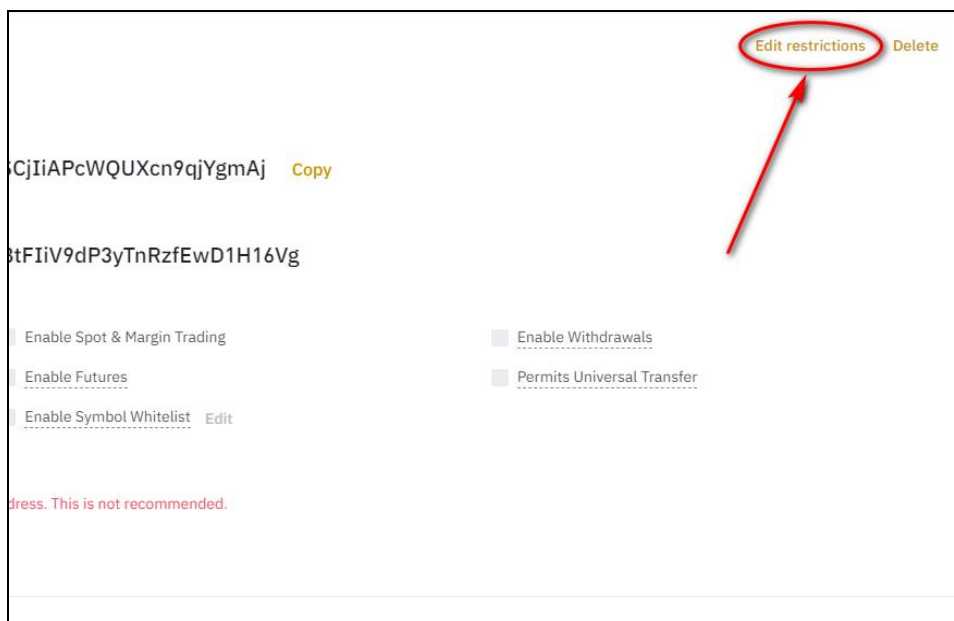
Label API Key to proceed

Key name 1

Cancel Next 2

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

3.5.5. Click **Edit restrictions**



API Key: CjIiAPcWQUXcn9qjYgmAj Copy

Secret Key: tFIiV9dP3yTnRzfEwD1H16Vg

Enable Spot & Margin Trading ☐ Enable Withdrawals ☐

Enable Futures ☐ Permits Universal Transfer ☐

Enable Symbol Whitelist ☐ Edit

Edit restrictions Delete

Address. 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:

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

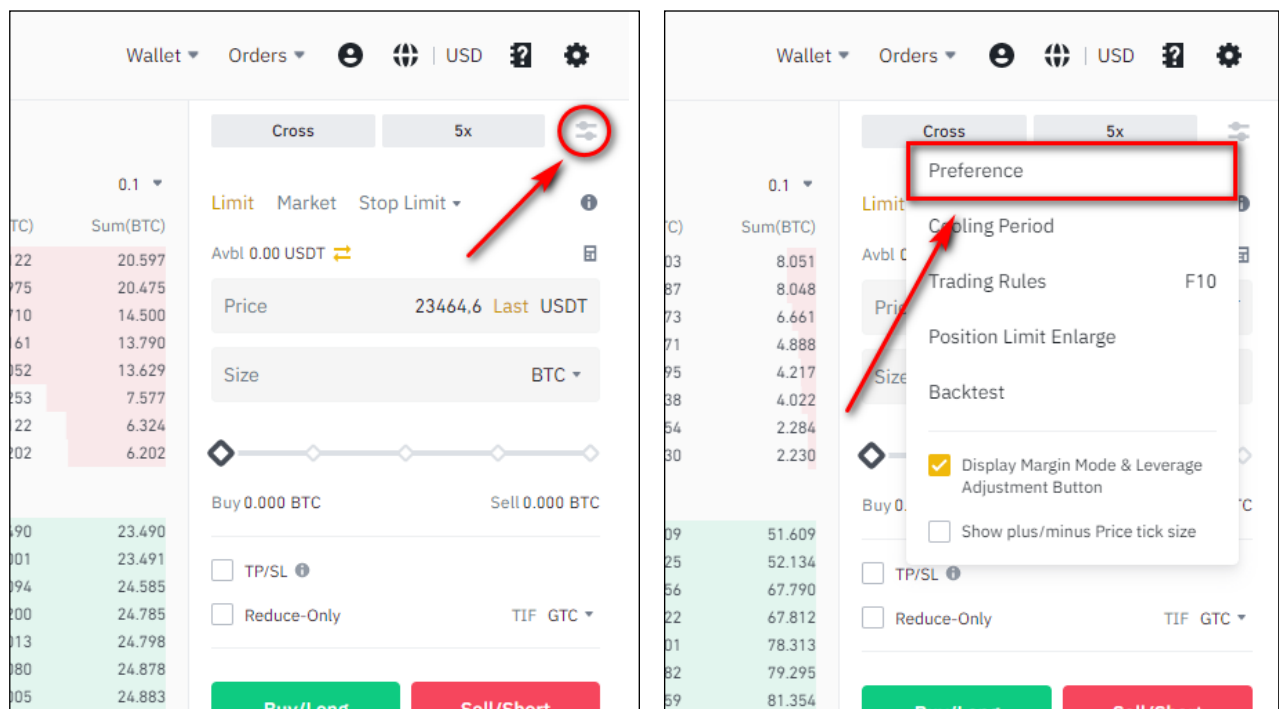
☐ Restrict access to trusted IPs only (Recommended)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

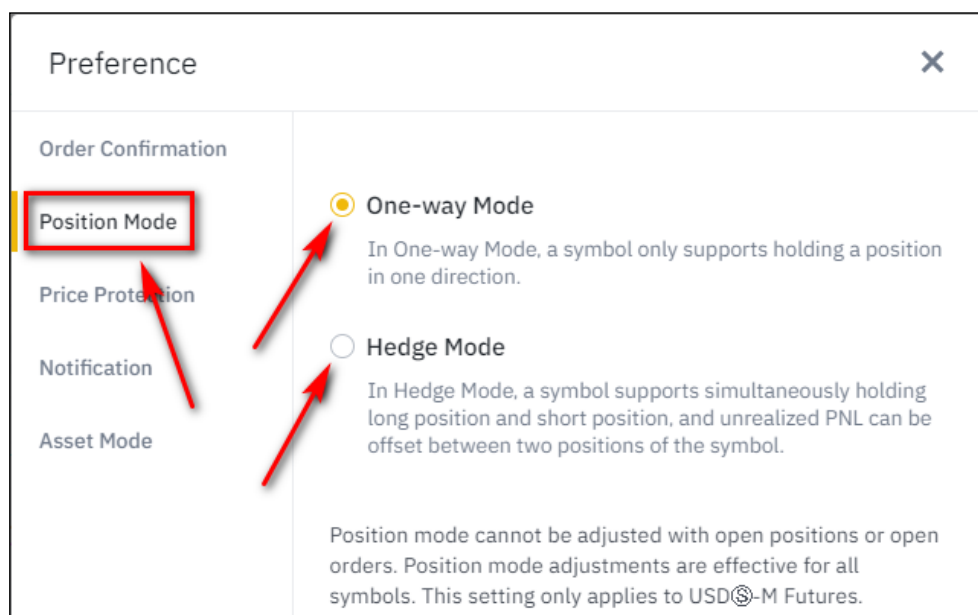
3.6. If you use Futures, the MT5 account type (netting, hedge) must match the Binance Position Mode (one-way, hedge), otherwise the CONNECTOR will not be launched.

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:



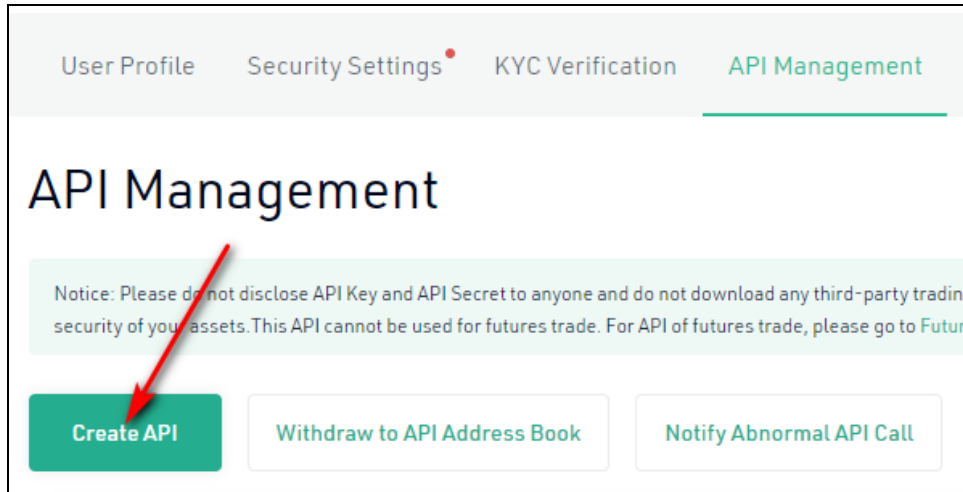
3.6.2. Select the **Position Mode** tab in the **Preference** window, and then select the required position mode:



## 4. Configuring a KuCoin account

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

- 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**.



## Create API

KuCoin offers robust API services. You can create API according to your needs and therefore access or trade in the market of KuCoin. [Check API document.](#)

API Name 1

API Passphrase 2

For security, API Passphrase is needed for the interface call, please keep it safe. If you lose API Passphrase, you need to create a new API Key.

API Restrictions

☒ General 3

Users can only carry out read-only operations such as checking the account information, account statement and order information, etc. Users cannot place orders, withdraw, etc.

☒ Trade 4

Users can place orders, cancel orders, etc.

☐ Transfer Not recommended

Users can withdraw, acquire deposit address, cancel withdrawals, etc.

IP Restriction Current IP: 255.255.255.255

☒ No 5

Any address can access to the API Secret Not recommended

☐ Yes Only trusted IP address can access to the API Secret Recommended

Next 6

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

## Security Verification

Trading Password

.....

Confirm

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

## API Created!



API Name

API Name

Key

648a0051ba02b40001f9f920



Secret

API Secret cannot be retrieved and will ONLY be displayed for ONE time.  
Please note it down and keep it safe.

0bbe24c7-4576-443f-b0bf-b5ee898e84a2



API Restrictions

General, Trade

IP Restriction

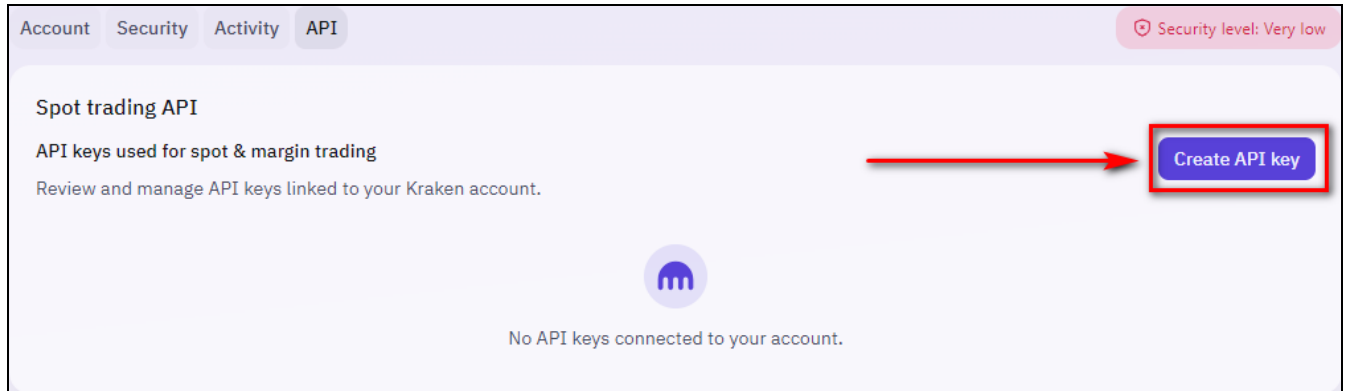
No

Confirm

## 5. Configuring a Kraken account

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

- 5.1. [Register](#) an account at the [Kraken website](#) or log in to your account if it was previously registered.
- 5.2. Create a spot trading API Key (required if you are going to use the CONNECTOR to copy trades to Kraken spot).
  - 5.2.1. Go to the [trading API settings page](#) and click the **Create API key** button in the **Spot trading API** section.



- 5.2.2. Enter an arbitrary **Name**. Select the **Query** funds permission. Select the options **Query open orders & trades**, **Query closed orders & trades**, **Create & modify orders** of the orders and trades permissions. Make sure the **IP address restriction** is disabled to allow using the key from any IP address. Click **Generate key**.

Add API key

API key settings

Name  
test API key

Select at least one permission

Funds permissions

☒ Query

☐ Deposit

☐ Withdraw

Orders and trades

☒ Query open orders & trades

☒ Query closed orders & trades

☒ Create & modify orders

☐ Cancel & close orders

Data

☐ Query ledger entries

☐ Export data

WebSocket interface

By default, the API key will work over REST. Allow WebSocket connections as well with this option.

Which interface to use?

IP address restriction

Restrict use of this API key to specific IP addresses or ranges

Key expiration

Set a key expiration date and time, after which it becomes unusable

Query start date

Earliest data is allowed to be queried

Query end date

Latest data is allowed to be queried

Custom nonce window

Add a value if nonce errors are received due to networking issues

Generate key

5.2.3. Keep the **API key** and the **Private key** in a safe place.

Checking step-up authentication

API key created

Important

Save your keys in a safe place. For security reasons, you won't be able to view them again once you close this dialog.

API key

qr7Fwis64SuQfN9nTiV6Pg0giYFhK...

Private key

Ch1WMKw9PPJSIbdos4m0g5m9Lv...

Close

5.2.4. To enable 2FA for the spot trading API key, click the context menu button of the key and click the **Add 2FA** button of the context menu.

NAME	CREATED	EXPIRY	2FA METHOD
test API key	30.06.2023	-	-

1

2

Edit API  
Add 2FA  
Remove

Learn more about API keys

Basics Automated and real time

Enable the **Two-factor authentication** in the **2FA settings** window.

2FA settings

test API key 2FA settings

Don't enable 2FA for the Kraken Pro mobile app or Cryptowatch API keys. [Learn More](#)

Two-factor authentication (2FA) ☐ Off

Select **Password** as 2FA method.

< Select 2FA method for API key

Add 2FA to API key

Add a two-factor authentication method for actions that can be performed using API keys. [Learn More](#)

Authenticator app  
Moderately secure

Password  
Least secure

Enter and re-type the password. Keep the **2FA password** in a safe place. Click **Confirm password**.

< Set up 2FA for API key ×

Set up your API 2FA password

Do not reuse your sign-in password for API 2FA.

Enter password 1

Contains at least:

- ✓ 12 characters
- ✓ 1 number
- ✓ 1 letter
- ✓ 1 special character

Re-type password 2

Confirm password 3

Choose when to use the 2FA and click **Change 2FA settings**.

2FA settings ×

test API key 2FA settings

Don't enable 2FA for the Kraken Pro mobile app or Cryptowatch API keys. [Learn More](#)

Two-factor authentication (2FA) ☒ On

Method Password >

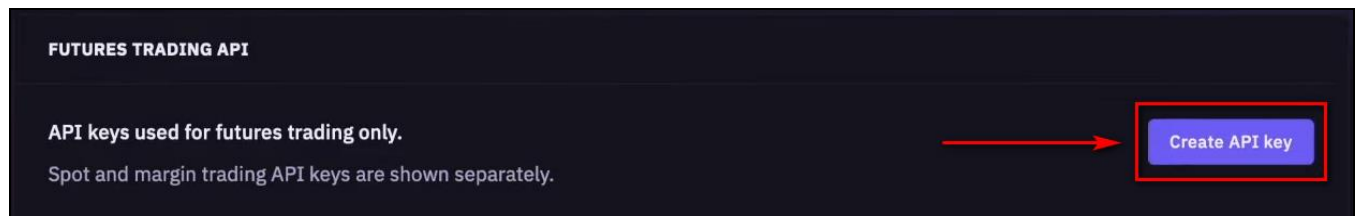
Use 2FA when you:

- ☐ Deposit funds
- ☐ Withdraw and transfer funds 1
- ☐ Create a new order
- ☐ Close an open position
- ☒ Cancel an open order

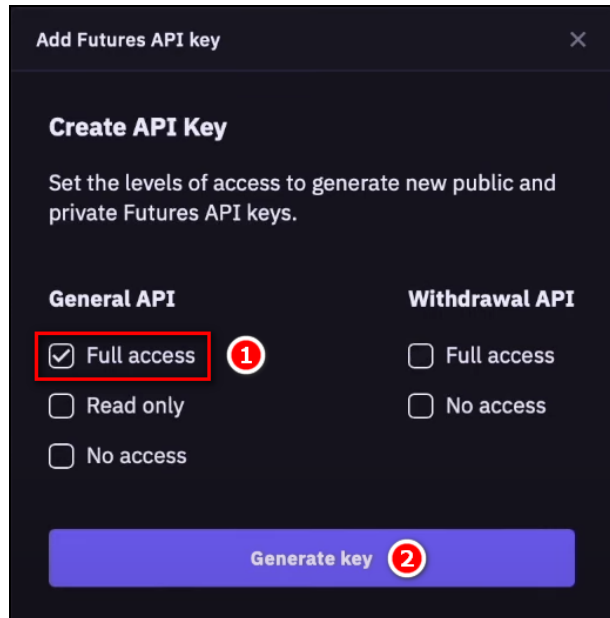
Change 2FA settings 2

5.3. Create a futures trading API Key (required if you are going to use the CONNECTOR to copy trades to Kraken futures).

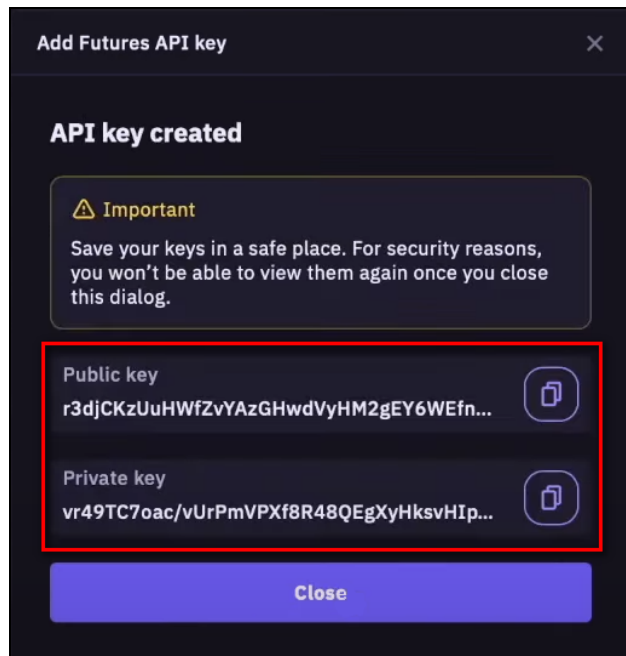
5.3.1. Go to the [trading API settings page](#) and click the **Create API key** button in the **Futures trading API** section.



5.3.2. Make sure the **Full access** option is selected for the **General API** and click **Generate key**.

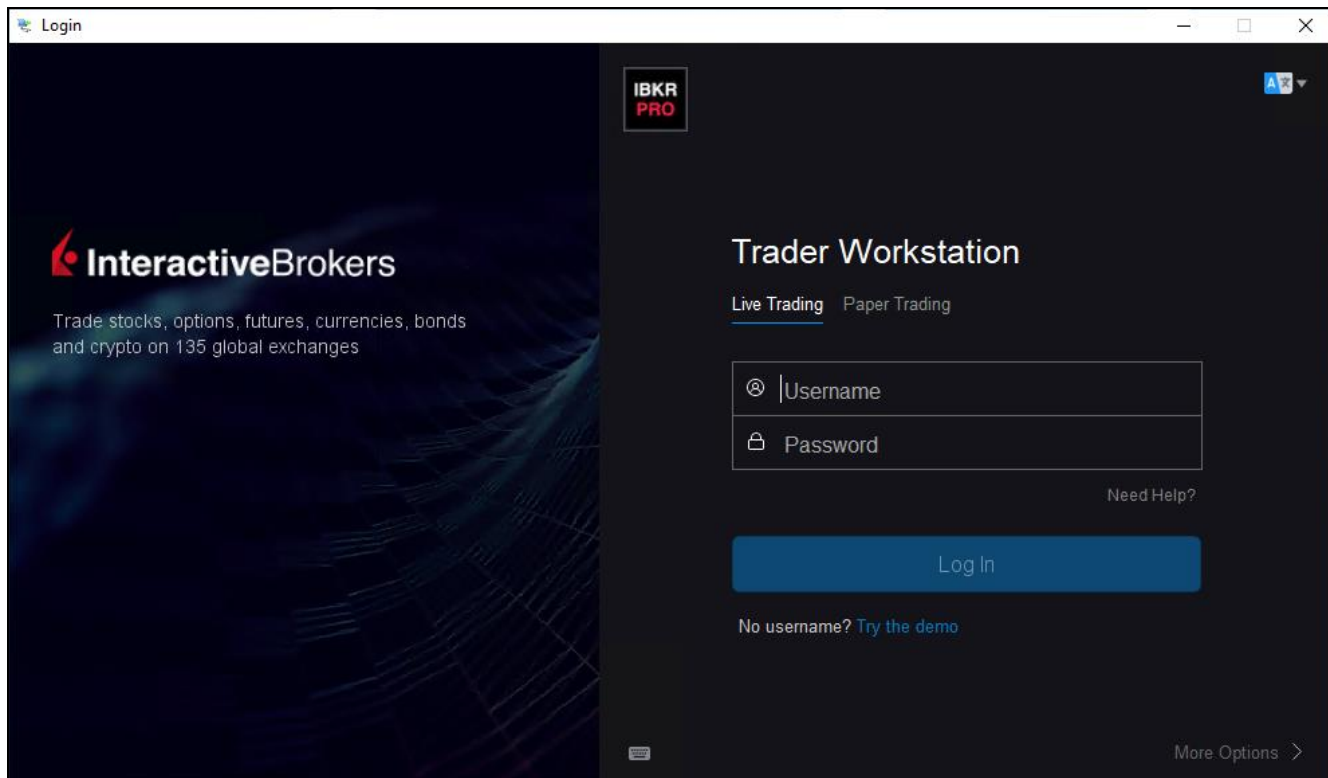


5.3.3. Keep the **Public key** and the **Private key** in a safe place.



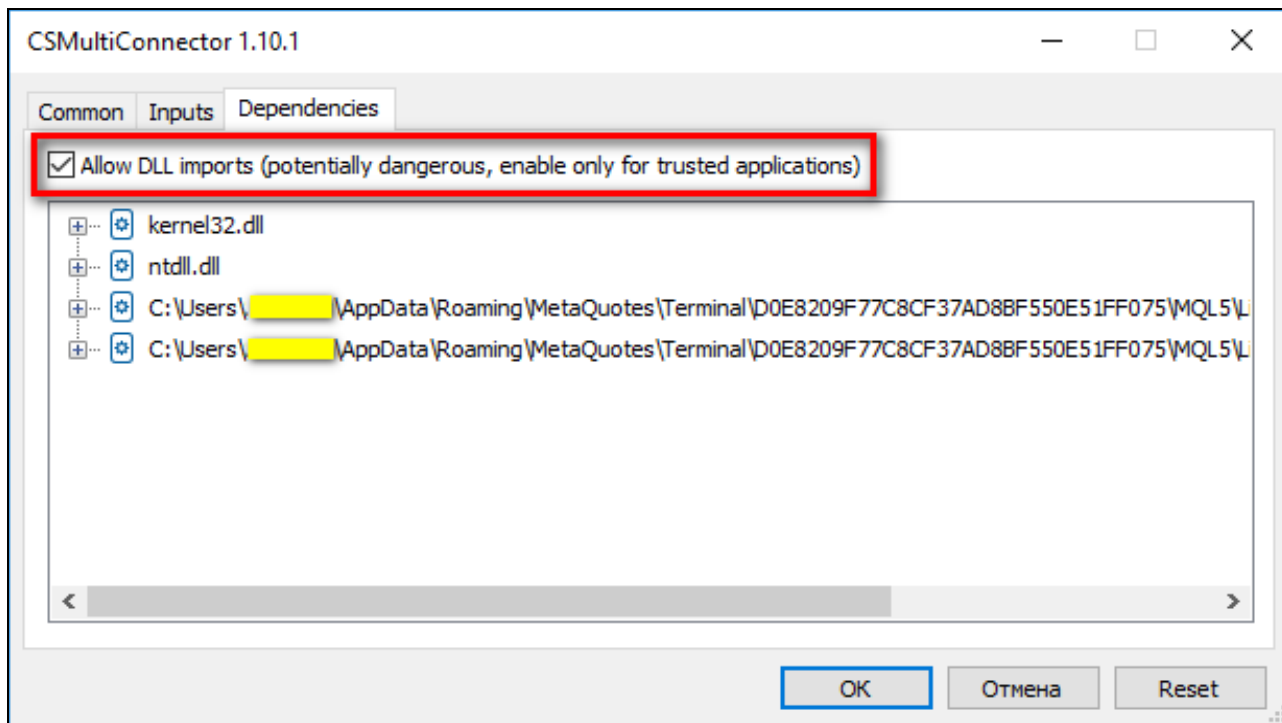
## 6. Launching the CONNECTOR

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



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

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



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

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

6.2.2.1.1. **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

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

Default value: false

6.2.2.2. **Logging** – logging options:

6.2.2.2.1. **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

6.2.2.2.2. **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

6.2.2.2.3. **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

6.2.2.2.4. **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.

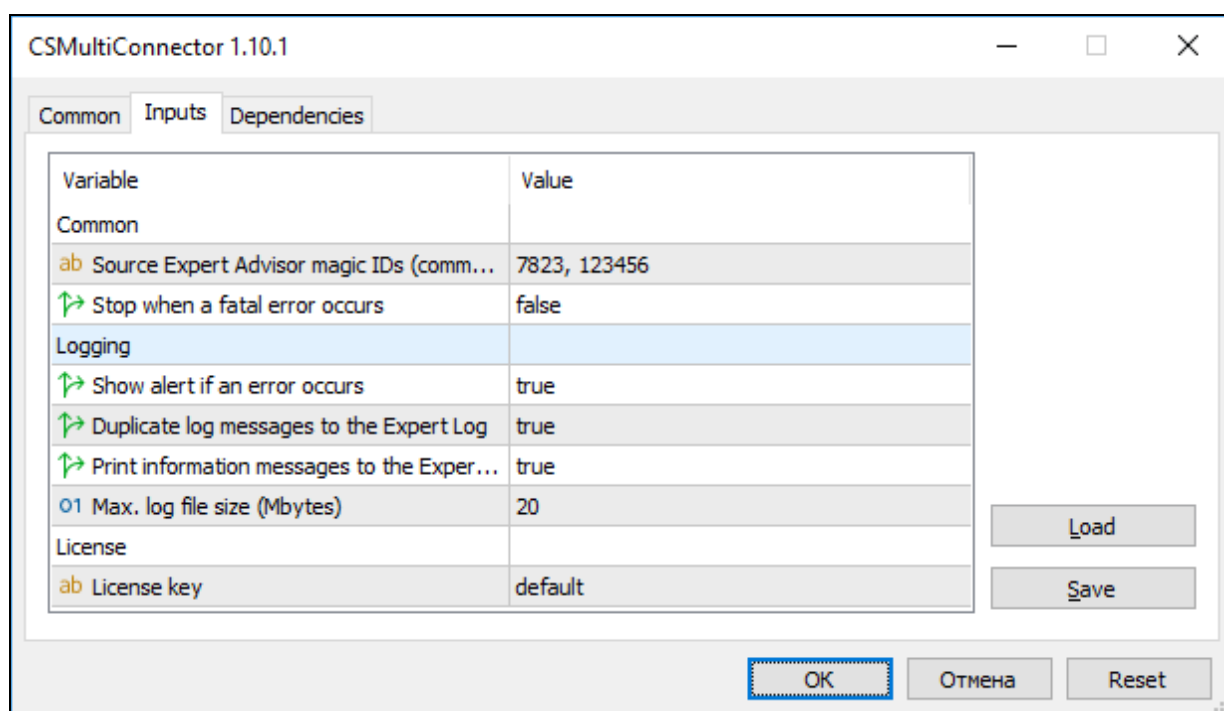
Default value: 20

6.2.2.3. **License** – licensing parameters:

6.2.2.3.1. **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.

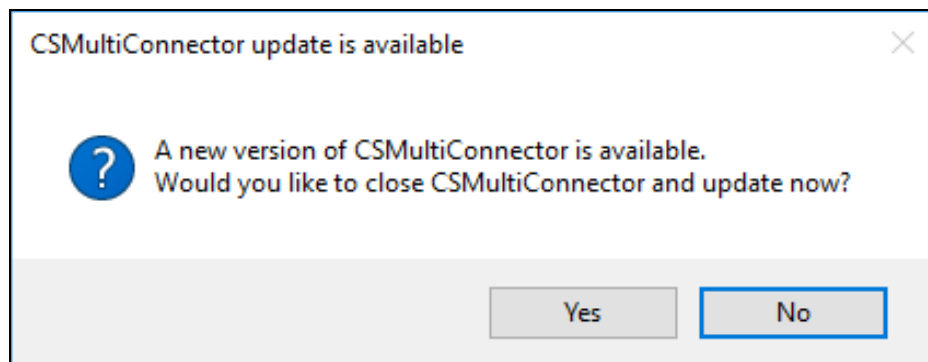
Default value: default

6.2.3. Click the **OK** button.

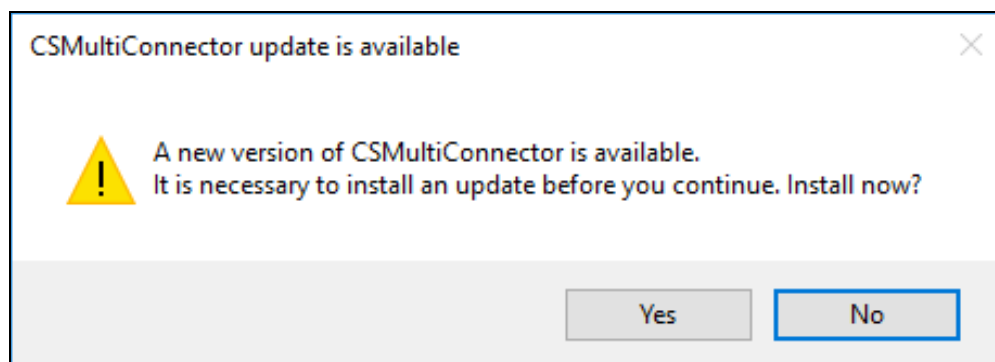


6.2.4. If a new CONNECTOR version is available, you will see a window prompting you to install the update. You can choose not to install the update and continue to use the current

version.

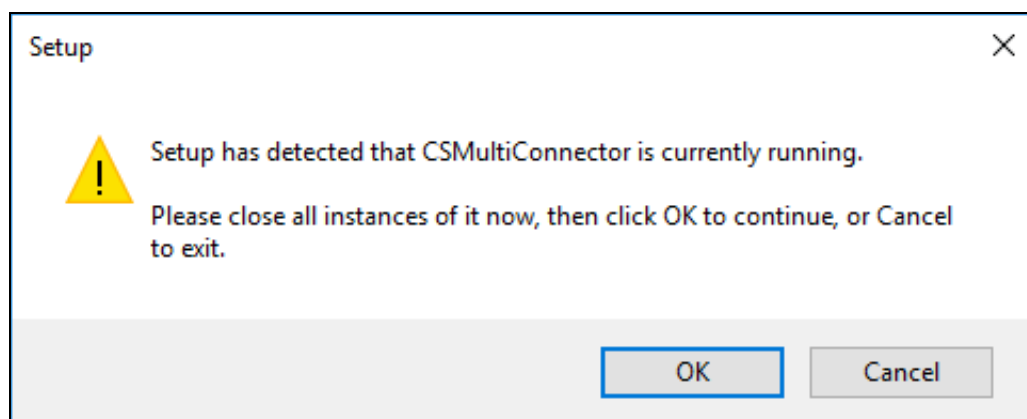


If installing the update is mandatory, then if you refuse to install the update or an error occurs when installing the update, the CONNECTOR will be closed.



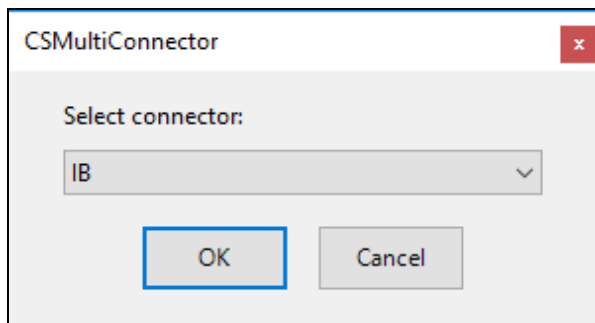
Upon receiving consent to install the update, the CONNECTOR will be closed and the installation dialog box will open. After the installation process is complete, you can start the CONNECTOR again.

**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.

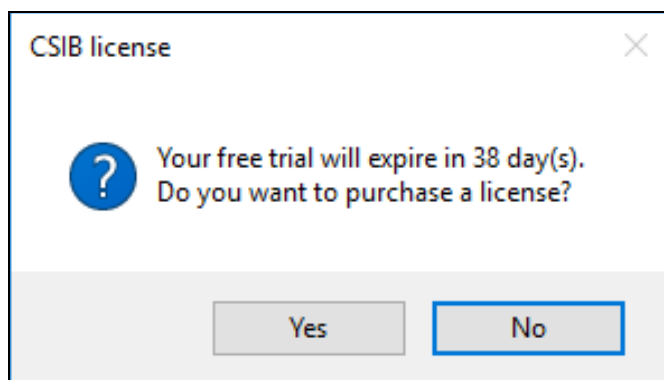
6.2.5. If the current version of the CONNECTOR is up to date, a window prompting you to choose a connector will open.



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.

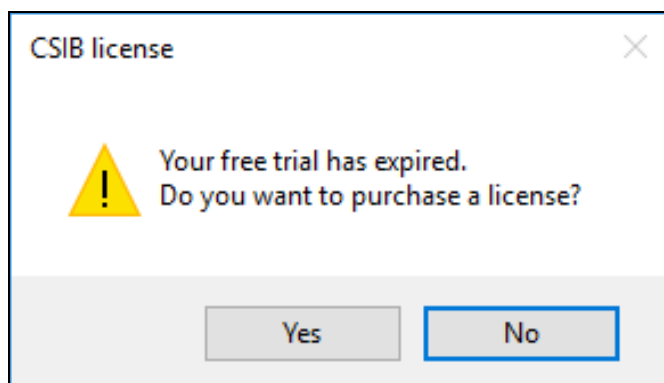
6.2.6. After selecting the connector, the license key will be checked.

6.2.6.1. 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:



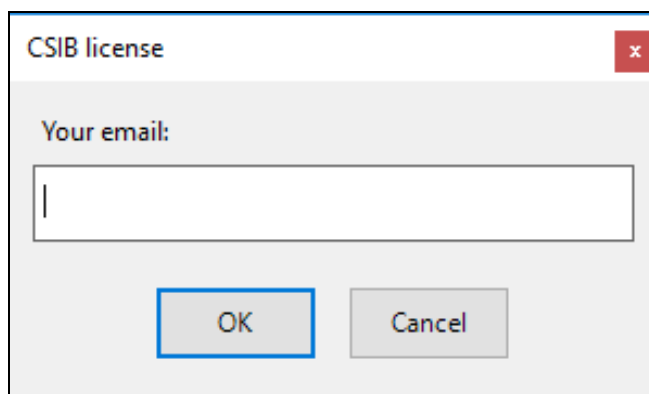
You may click **No** and continue using the trial version.

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

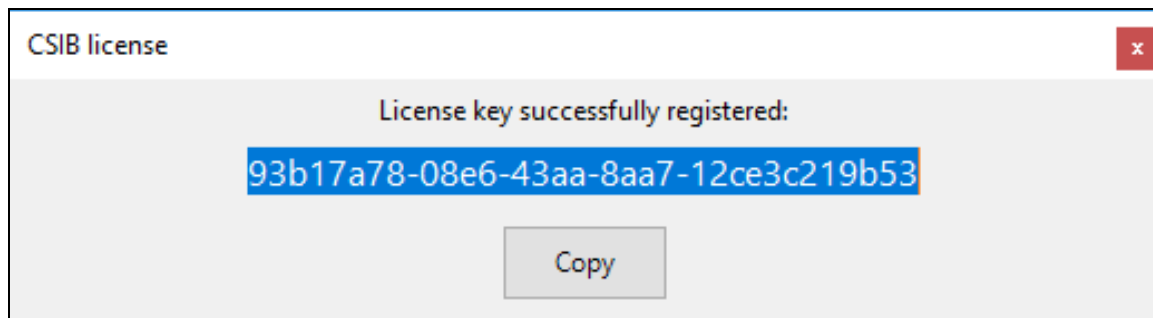


In this case, if you click **No**, the CONNECTOR will terminate its operation.

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

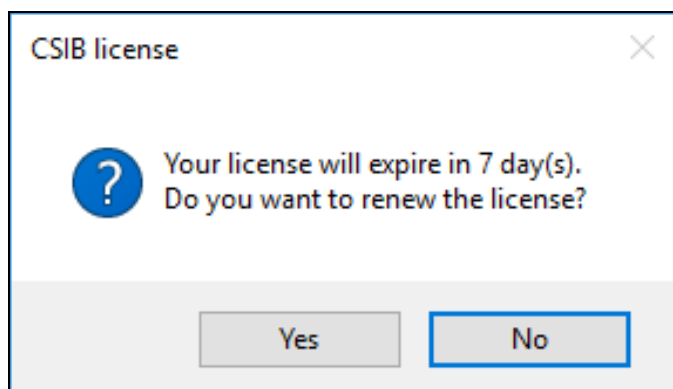
A dialog box titled "CSIB license" with a red close button in the top right corner. It contains a label "Your email:" followed by a text input field. At the bottom, there are two buttons: "OK" and "Cancel".

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

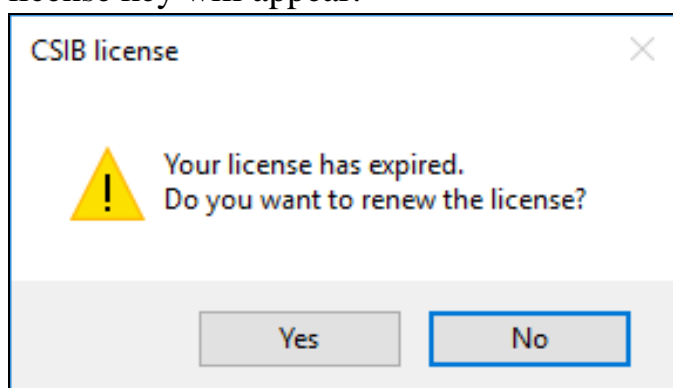
A dialog box titled "CSIB license" with a red close button in the top right corner. It displays the message "License key successfully registered:" followed by a blue highlighted text box containing the license key "93b17a78-08e6-43aa-8aa7-12ce3c219b53". Below the text box is a "Copy" button.

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

- 6.2.6.4. 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.

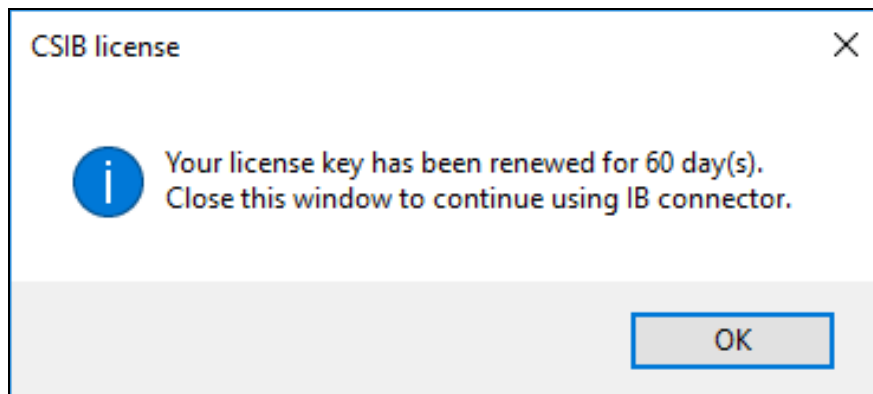
A dialog box titled "CSIB license" with a close button in the top right corner. It features a blue question mark icon and the text "Your license will expire in 7 day(s). Do you want to renew the license?". At the bottom, there are two buttons: "Yes" and "No", with the "No" button highlighted with a blue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

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

A dialog box titled "CSIB license" with a close button in the top right corner. It features a yellow warning triangle icon and the text "Your license has expired. Do you want to renew the license?". At the bottom, there are two buttons: "Yes" and "No", with the "No" button highlighted with a blue border.

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

6.2.6.6. 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.

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

6.2.7.1. IB settings window:

A settings window titled "IB settings" with a close button (X) in the top right corner. It contains several input fields and buttons. The fields are: "TWS IP" (127 . 0 . 0 . 1), "Port" (7497), "Client ID" (1), "Account" (test), "Exchange" (SMART), "Security's type" (CFD), "Max. order resubmit tries" (3), "Order timeout (s)" (30), "Reconnection interval (s)" (300), and "Positions sync period (s)" (180). There is also a checkbox for "Reset cache" which is unchecked. At the bottom, there are buttons for "Save", "Load", "OK", and "Cancel".

6.2.7.1.1. **TWS IP** – the IP address at which TWS is available for connection.

Default value: 127.0.0.1

6.2.7.1.2. **Port** – the socket port assigned in the TWS settings.

Default value: 7497

6.2.7.1.3. **Client ID** – the client ID must be unique if more than one client is connected to TWS.

Default value: 1

6.2.7.1.4. **Account** – the IB account trades will be allocated to.

Default value: empty string

6.2.7.1.5. **Exchange** - the target exchange of the contract.

Default value: SMART

6.2.7.1.6. **Security's type** – the type of securities of the contract. Currently, only CFD and CASH contracts are supported.

Default value: CFD

6.2.7.1.7. **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

6.2.7.1.8. **Order timeout (s)** – the maximum waiting time for the full execution of the order in seconds.

Default value: 30

6.2.7.1.9. **Reconnection interval (s)** – the time interval in seconds between repeated connection attempts in case of connection loss.

Default value: 300

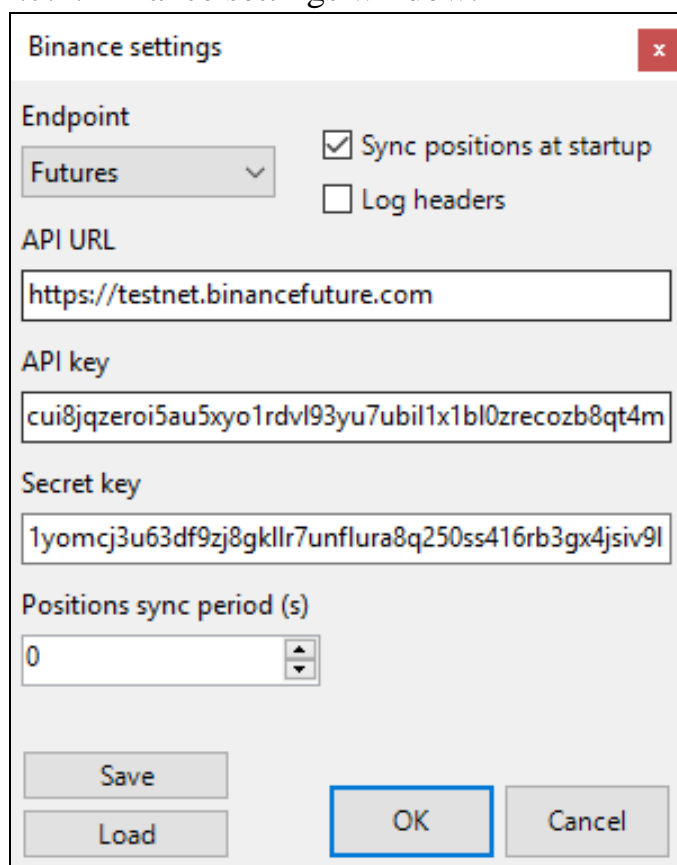
6.2.7.1.10. **Position sync period (s)** – the periodicity of positions synchronization in seconds. Set to 0 to disable periodic positions synchronization.

Default value: 180

6.2.7.1.11. **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

6.2.7.2. Binance settings window:



Binance settings

Endpoint: Futures

☒ Sync positions at startup

☐ Log headers

API URL: https://testnet.binancefuture.com

API key: cui8jqzeroi5au5xyo1rdvl93yu7ubil1x1bl0zrecozb8qt4m

Secret key: 1yomcj3u63df9zj8gkllr7unflura8q250ss416rb3gx4jsiv9l

Positions sync period (s): 0

Save Load OK Cancel

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

Default value: Spot

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

Default value: not selected

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

Default value: not selected

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

Default value: empty string

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

Default value: empty string

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

Default value: empty string

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

Default value: 180

6.2.7.3. KuCoin settings window:

KuCoin settings

Endpoint: Futures

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

Buttons: Save, Load, OK, Cancel

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

Default value: Spot

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

Default value: not selected

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

Default value: not selected

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

Default value: empty string

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

Default value: empty string

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

Default value: empty string

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

Default value: empty string

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

Default value: empty string

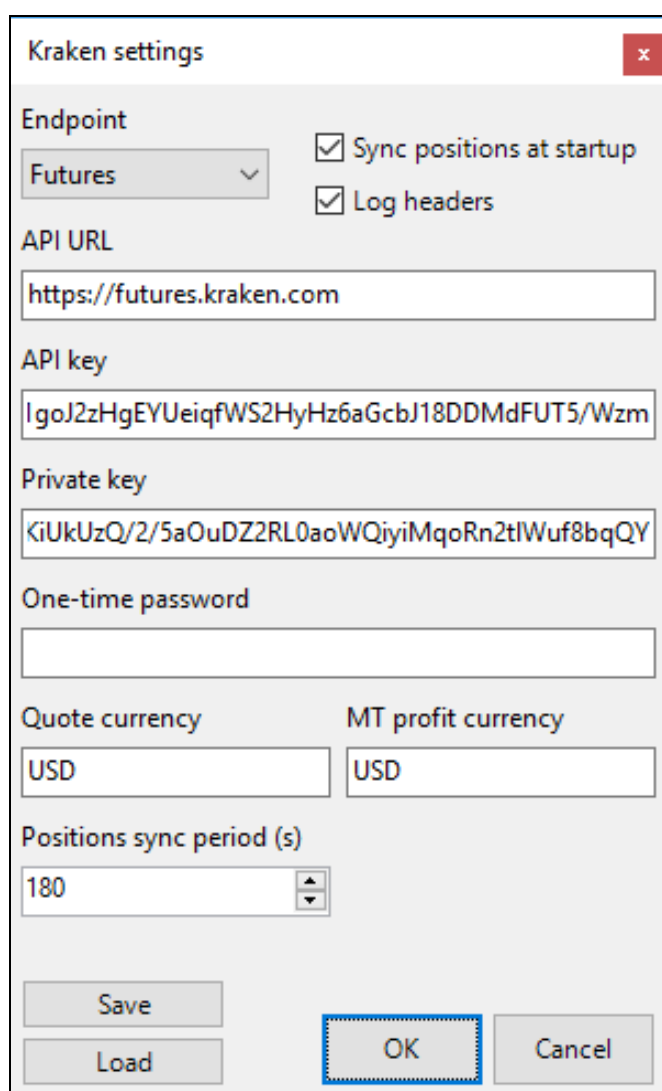
6.2.7.3.9. **MT profit currency** – MT5 symbol profit currency.

Default value: empty string

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

Default value: 180

6.2.7.4. Kraken settings window:



6.2.7.4.1. **Endpoint** – the Kraken API endpoint type: Spot or Futures.

Default value: Spot

6.2.7.4.2. **Sync positions at startup** – the flag to synchronize positions between MT5 and Kraken at startup.

Default value: not selected



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

Default value: not selected

6.2.7.4.4. **API URL** – the Kraken API endpoint URL.

Default value: empty string

6.2.7.4.5. **API key** – previously registered Kraken API key.

Default value: empty string

6.2.7.4.6. **Private key** – a private key associated with the API key.

Default value: empty string

6.2.7.4.7. **One-time password** – a one-time password for 2FA (mandatory if 2FA is enabled for the API key).

Default value: empty string

6.2.7.4.8. **Quote currency** – Kraken symbol quote currency.

Default value: empty string

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

Default value: empty string

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

Default value: 180

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

## 7. CONNECTOR for IB features

- 7.1. 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.
- 7.2. 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.
- 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.
- 7.4. Only netting accounts are supported, since IB accounts allow only one position on a selected instrument in any direction.
- 7.5. 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.

## 8. CONNECTOR for Binance features

- 8.1. 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.
- 8.2. 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.
- 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.

## 9. CONNECTOR for KuCoin and Kraken features

- 9.1. If the **Sync positions at startup** option is selected, positions will be synchronized between MT5 and a target platform at the CONNECTOR startup by submitting orders to a target platform, bringing positions at a target platform 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 trading account balance at a target platform is: 0.01 BTC, 0 ETH, 100000 USDT. During the synchronization, two market orders will be executed from your trading account at a target platform: sell 0.01 BTC and buy 0.1 ETH.
- 9.2. An attempt to synchronize positions between MT5 and a target platform will be performed in the same way if any error occurs during data exchange between MT5 and a target platform.
- 9.3. 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.

9.4. 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.

## 10. How to install the CONNECTOR on Linux

### 10.1. Install [Wine](#) and MetaTrader 5 if not already installed.

#### 10.1.1. Create a shell script file and make it executable using the command line:

```
nano wineAndMt5Install.sh
chmod +x wineAndMt5Install.sh
```

#### 10.1.2. Paste a script for your system to the file and save it. Change MT5\_INSTALLER\_URL (and the file name on the last line of the script accordingly) if you need to install MetaTrader 5 terminal from a different source. You may also change MT5\_WINE\_PREFIX and WINE\_VERSION if necessary.

##### 10.1.2.1. Ubuntu:

```
#!/bin/bash

# MetaTrader 5 download URL
MT5_INSTALLER_URL="https://download.mql5.com/cdn/web/metaquotes.soft-
ware.corp/mt5/mt5setup.exe"
# Wine prefix where MetaTrader 5 will be installed
MT5_WINE_PREFIX=~/.mt5
# Wine version to install: stable or devel
WINE_VERSION="stable"

# Prepare: switch to 32 bit and add Wine key
sudo dpkg --add-architecture i386
wget -nc https://dl.winehq.org/wine-builds/winehq.key
sudo mkdir /etc/apt/keyrings
sudo mv winehq.key /etc/apt/keyrings/winehq-archive.key

# Get Ubuntu version and trim to major only
OS_VER=$(lsb_release -r |cut -f2 |cut -d "." -f1)
# Choose repository based on Ubuntu version
if (( $OS_VER >= 22 )); then
    wget -nc https://dl.winehq.org/wine-builds/ubuntu/dists/jammy/winehq-jammy.sources
    sudo mv winehq-jammy.sources /etc/apt/sources.list.d/
elif (( $OS_VER < 22 )) && (( $OS_VER >= 21 )); then
    wget -nc https://dl.winehq.org/wine-builds/ubuntu/dists/impish/winehq-impish.sources
    sudo mv winehq-impish.sources /etc/apt/sources.list.d/
elif (( $OS_VER < 21 )) && (( $OS_VER >= 20 )); then
    wget -nc https://dl.winehq.org/wine-builds/ubuntu/dists/focal/winehq-focal.sources
    sudo mv winehq-focal.sources /etc/apt/sources.list.d/
elif (( $OS_VER < 20 )); then
    wget -nc https://dl.winehq.org/wine-builds/ubuntu/dists/bionic/winehq-bionic.sources
    sudo mv winehq-bionic.sources /etc/apt/sources.list.d/
fi

# Update package and install Wine
sudo apt update
sudo apt upgrade
sudo apt install --install-recommends winehq-$WINE_VERSION

# Download MetaTrader 5
wget $MT5_INSTALLER_URL

# Set environment to Windows 10
WINEPREFIX=$MT5_WINE_PREFIX winecfg -v=win10
# Start MetaTrader 5 installer
WINEPREFIX=$MT5_WINE_PREFIX wine mt5setup.exe
```

### 10.1.2.2. Debian:

```
#!/bin/bash

# MetaTrader 5 download URL
MT5_INSTALLER_URL="https://download.mql5.com/cdn/web/metaquotes.soft-
ware.corp/mt5/mt5setup.exe"
# Wine prefix where MetaTrader 5 will be installed
MT5_WINE_PREFIX=~/.mt5
# Wine version to install: stable or devel
WINE_VERSION="stable"

# Prepare: switch to 32 bit and add Wine key
sudo dpkg --add-architecture i386
wget -nc https://dl.winehq.org/wine-builds/winehq.key
sudo mkdir /etc/apt/keyrings
sudo mv winehq.key /etc/apt/keyrings/winehq-archive.key

# Get Debian version and trim to major only
OS_VER=$(lsb_release -r |cut -f2 |cut -d "." -f1)
# Choose repository based on Debian version
if (( $OS_VER >= 12 )); then
    wget -nc https://dl.winehq.org/wine-builds/debian/dists/bookworm/winehq-
bookworm.sources
    sudo mv winehq-bookworm.sources /etc/apt/sources.list.d/
elif (( $OS_VER < 12 )) && (( $OS_VER >= 11 )); then
    wget -nc https://dl.winehq.org/wine-builds/debian/dists/bullseye/winehq-
bullseye.sources
    sudo mv winehq-bullseye.sources /etc/apt/sources.list.d/
elif (( $OS_VER <= 10 )); then
    wget -nc https://dl.winehq.org/wine-builds/debian/dists/buster/winehq-buster.sources
    sudo mv winehq-buster.sources /etc/apt/sources.list.d/
fi

# Update package and install Wine
sudo apt update
sudo apt upgrade
sudo apt install --install-recommends winehq-$WINE_VERSION

# Download MetaTrader 5
wget $MT5_INSTALLER_URL

# Set environment to Windows 10
WINEPREFIX=$MT5_WINE_PREFIX winecfg -v=win10
# Start MetaTrader 5 installer
WINEPREFIX=$MT5_WINE_PREFIX wine mt5setup.exe
```

### 10.1.3. Run the script.

### 10.2. Check if [Winetricks](#) is installed:

```
dpkg -s winetricks
```

If not, follow the [installation procedure](#).

### 10.3. Check if .NET Framework 4.8 is installed. Run command (replace [wine prefix path] with the path to the Wine prefix where you want to install the CONNECTOR):

```
WINEPREFIX=[wine prefix path] winetricks list-installed
```

If the output does not contain dotnet48 line, run .NET Framework 4.8 [automatic installation through winetricks](#) (replace [wine prefix path] with the path to the Wine prefix where you want to install the CONNECTOR):

```
WINEPREFIX=[wine prefix path] winetricks dotnet48
```

10.4. Download and start the CONNECTOR installer (replace `[wine prefix path]` with the path to the Wine prefix where you want to install the CONNECTOR):

```
wget "https://connector.solutions/Themes/Orchard.ConnectorSolutions/content/download/CSMultiConnector_Setup.exe"
```

```
WINEPREFIX=[wine prefix path] wine CSMultiConnector_Setup.exe
```

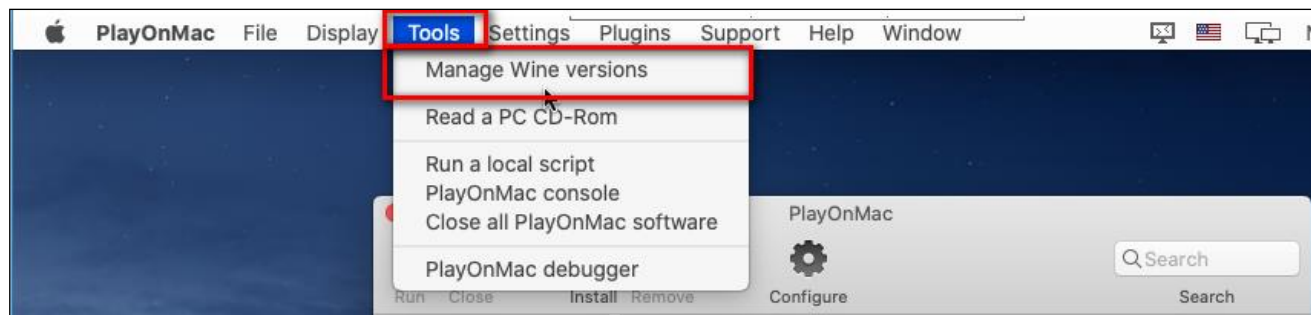
## 11. How to install the CONNECTOR on Mac OS

11.1. Download and install [XQuartz](#) if not installed.

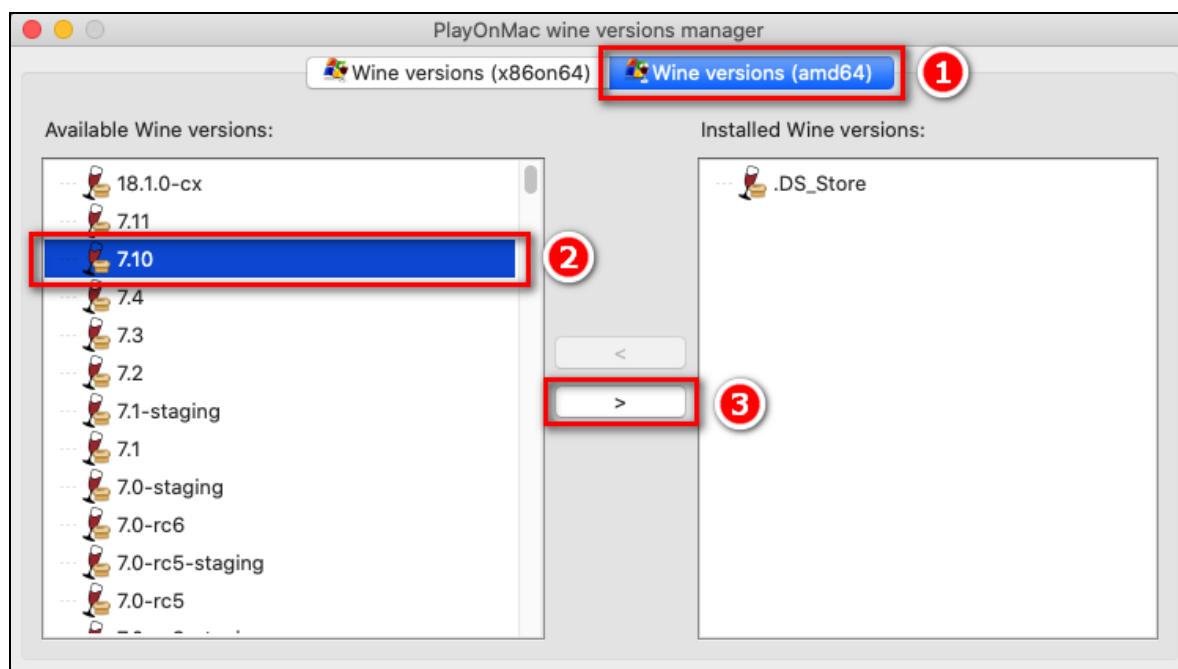
11.2. [Download](#) and [install](#) PlayOnMac if not installed and run it.

11.3. Install Wine version 7.10 or later if not installed.

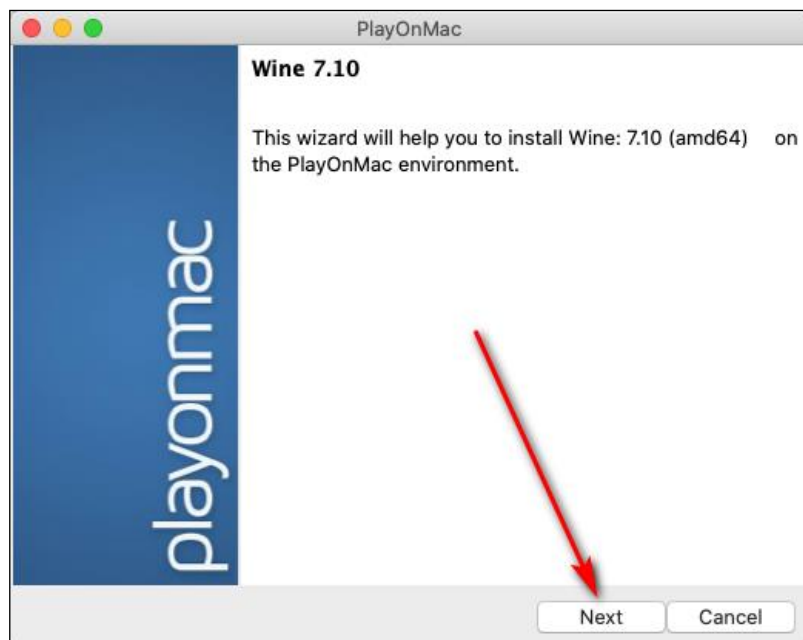
11.3.1. Click **Tools** → **Manage Wine versions** in the PlayOnMac menu bar.



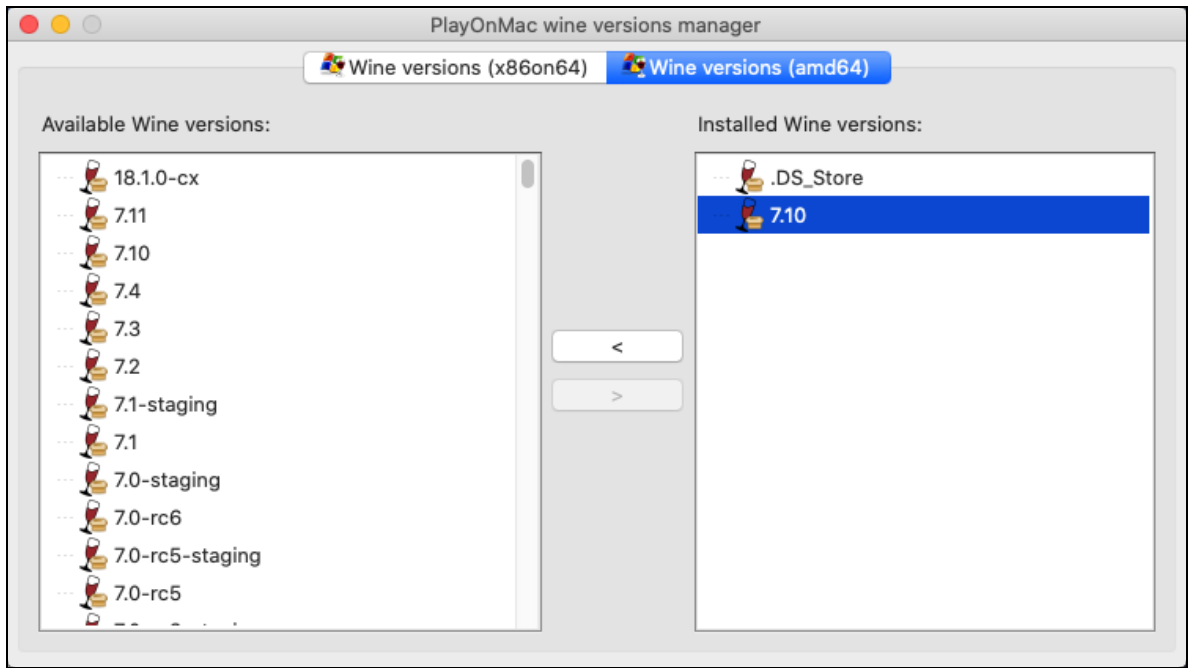
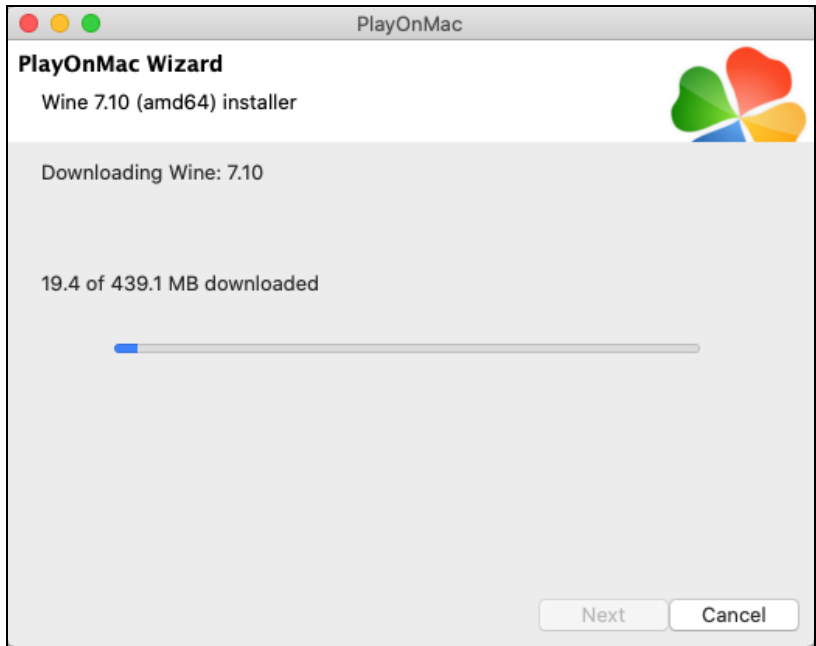
11.3.2. Select **Wine versions (amd64)** in the **PlayOnMac wine versions manager** window. Select 7.10 or later Wine version and click > to start installation wizard.



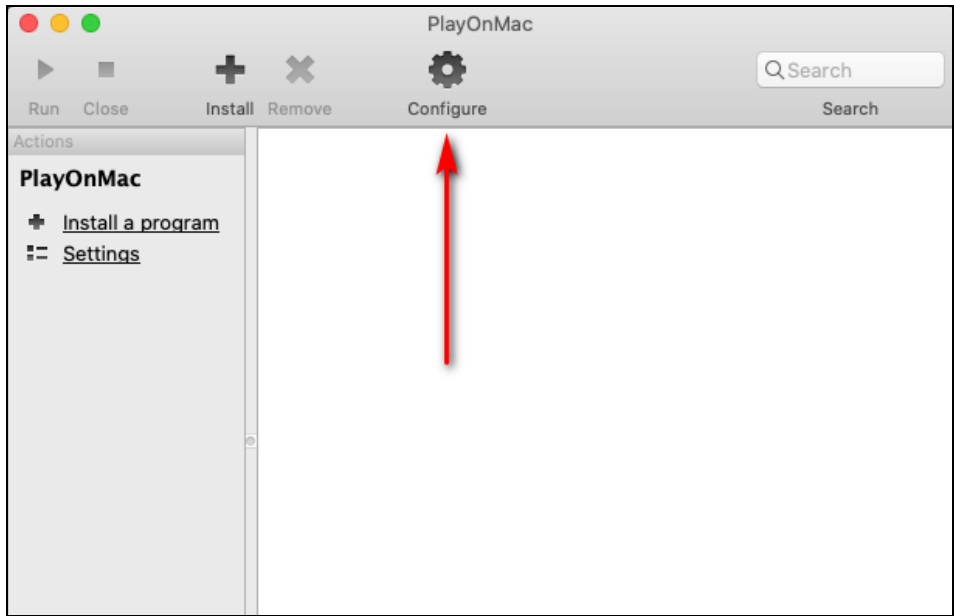
11.3.3. Click **Next** in the wizard window.



11.3.4. Wait for the installation to complete.



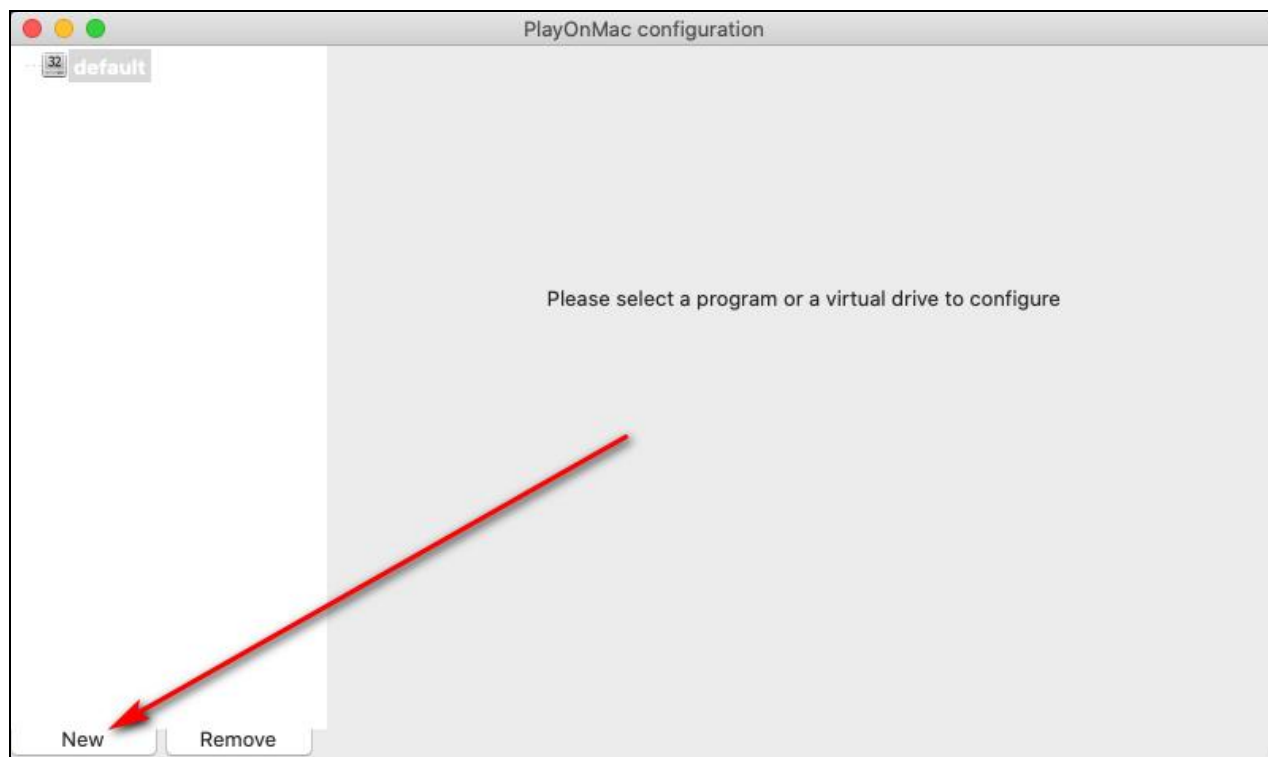
11.4. Click **Configure** in the PlayOnMac window.





11.5. Select existing 64 bits virtual drive (Wine prefix) or create a new one.

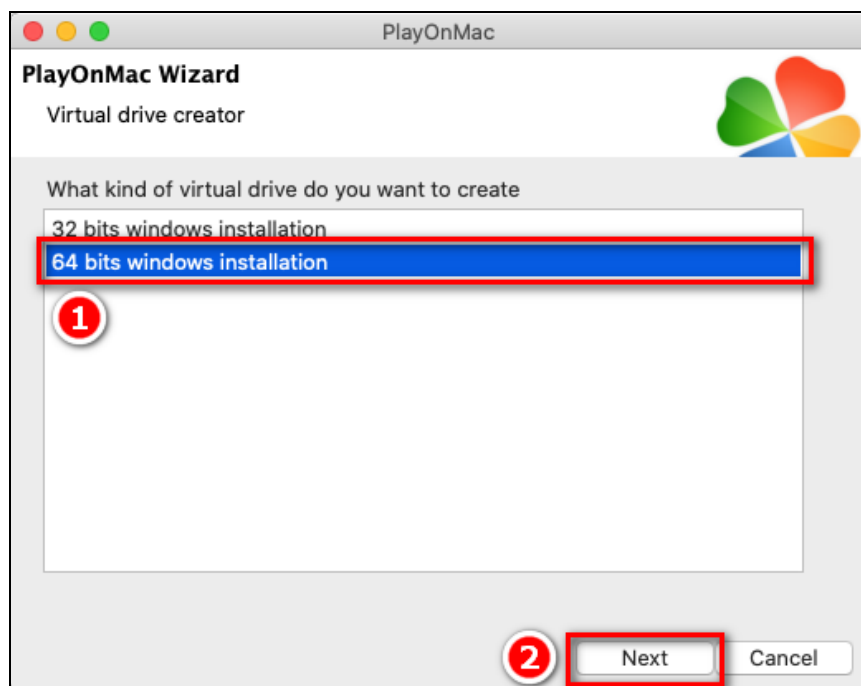
11.5.1. Click **New** in the **PlayOnMac configuration** window to create a new virtual drive.



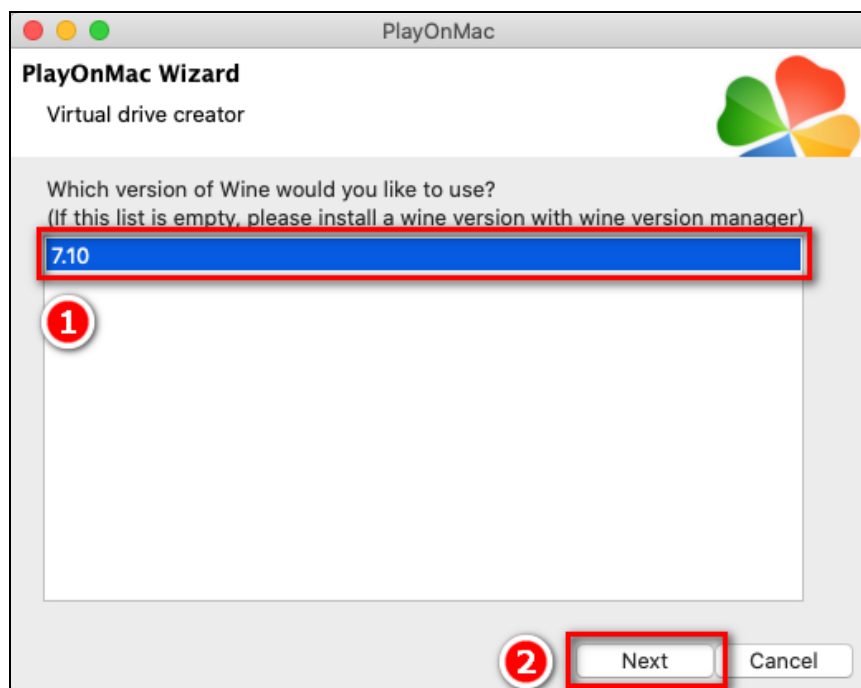
11.5.2. Click **Next** in the **Virtual drive creator** wizard window.



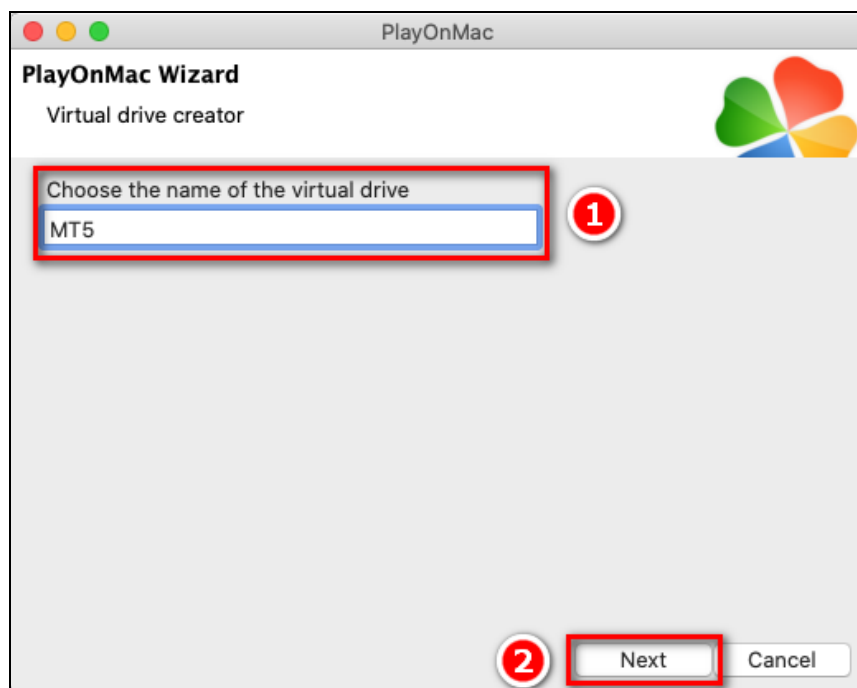
11.5.3. Select **64 bits windows installation** option and click **Next**.



11.5.4. Select Wine version 7.10 or later and click **Next**.

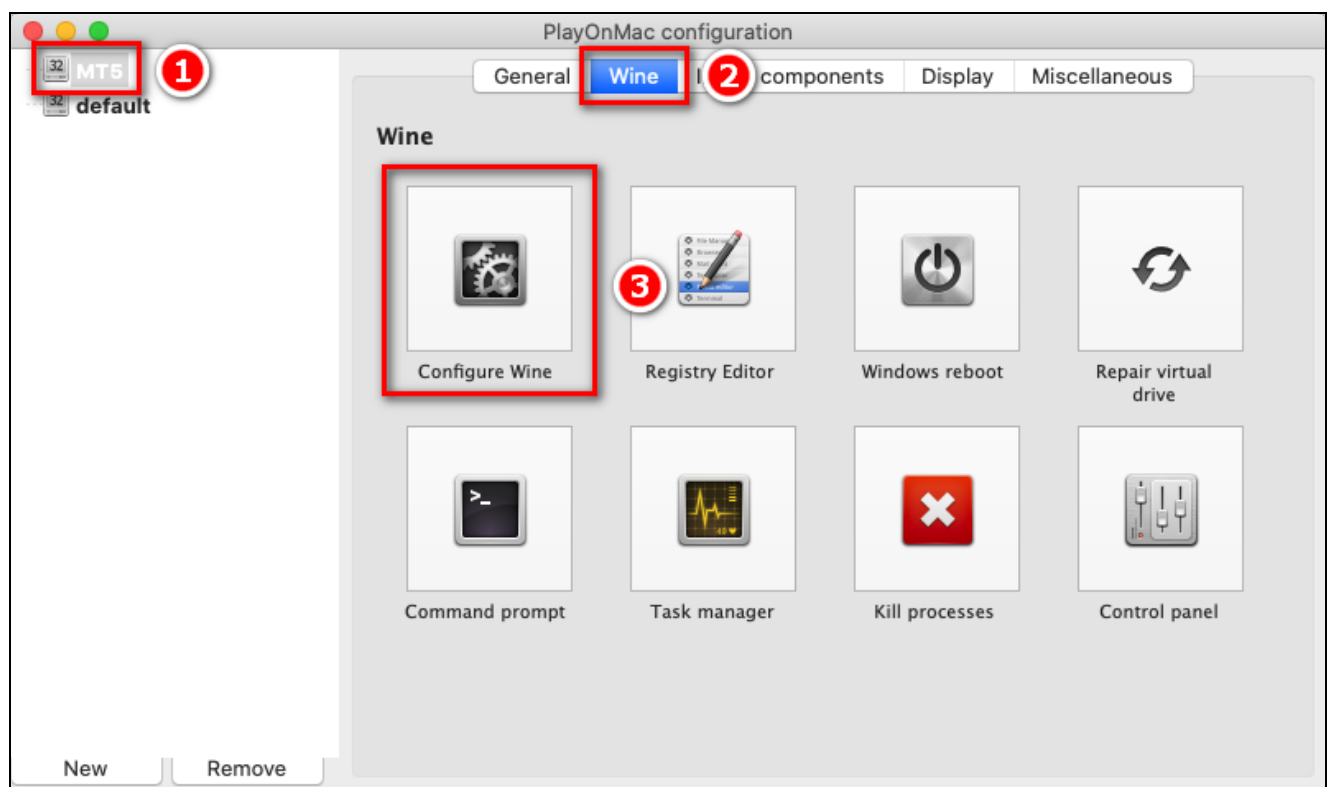


11.5.5. Enter the name of the virtual drive, click **Next** and wait for the installation to complete.

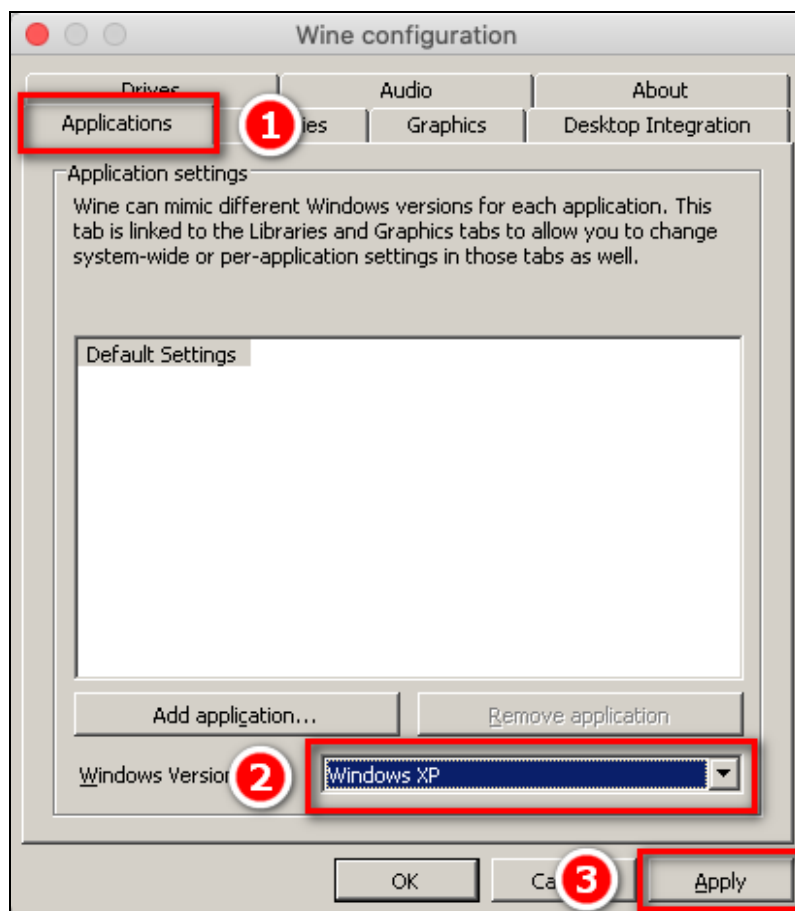


11.6. Install .NET Framework 4.8 to your Wine virtual drive if not installed.

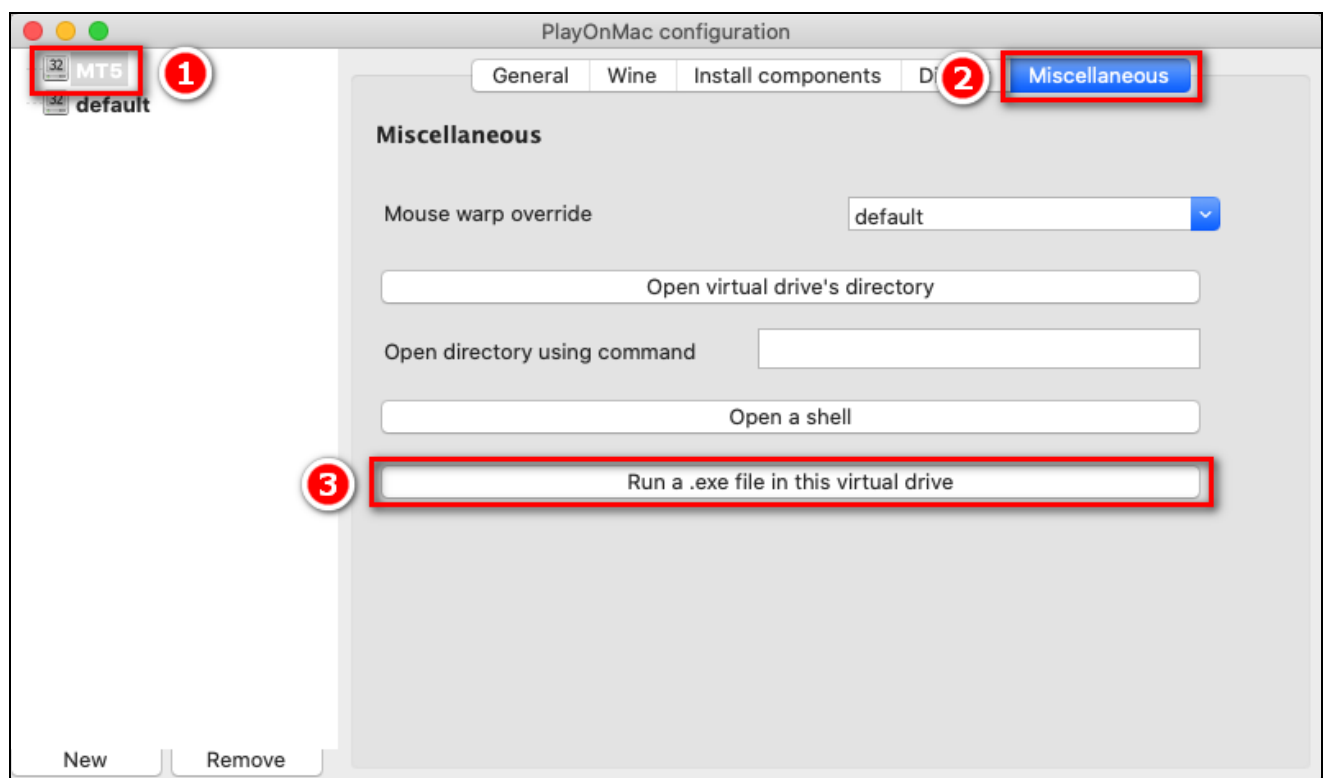
11.6.1. Change Wine reported version to Windows XP. Select Wine virtual drive, select **Wine** tab on right pane and click **Configure Wine**.



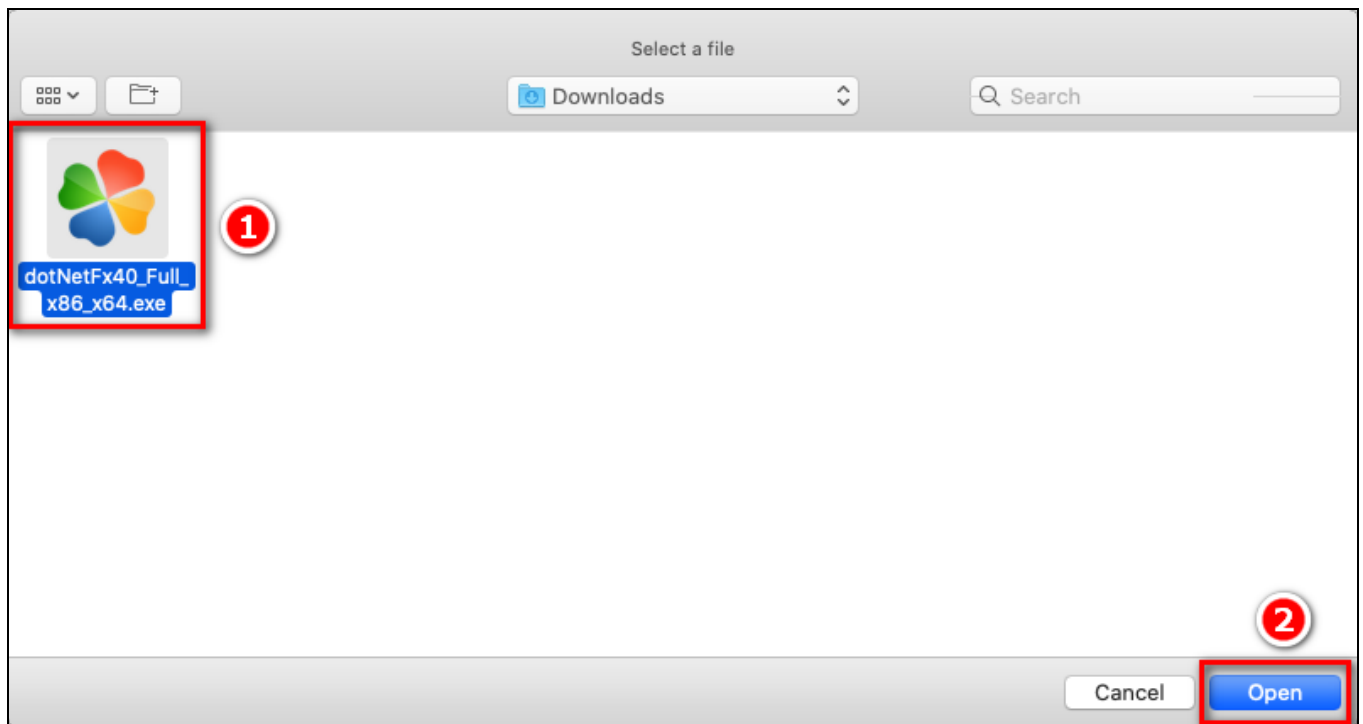
11.6.2. Select **Applications** tab in the **Wine configuration** window. Select **Windows XP** version and click **Apply**.



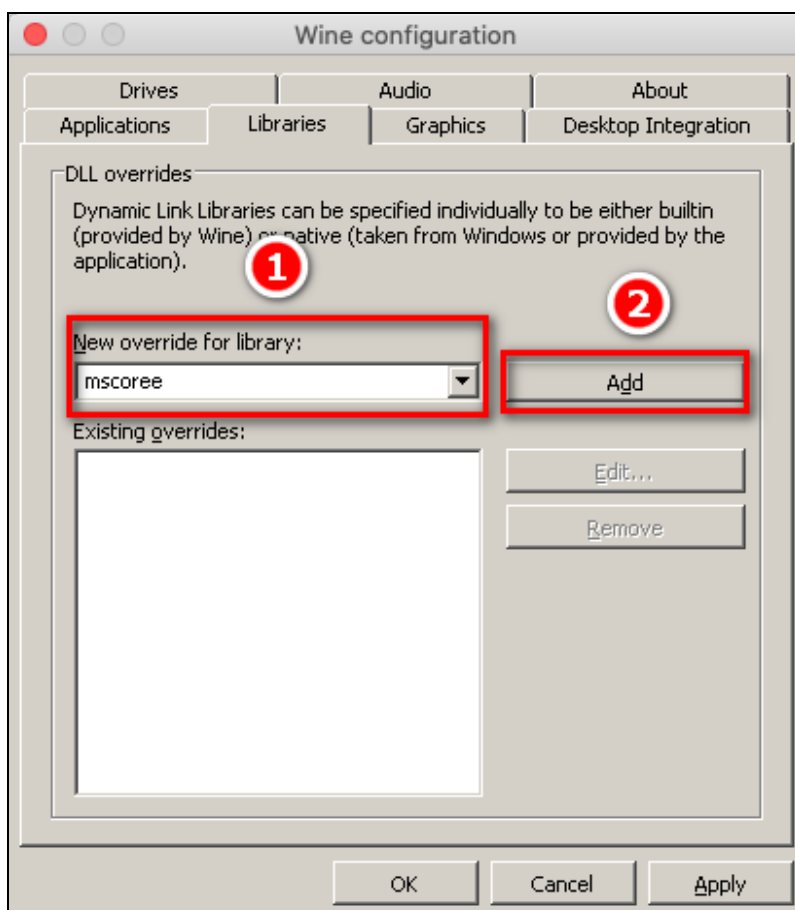
11.6.3. [Download](#) .NET Framework 4.0 installer. Select **Miscellaneous** tab in the **PlayOnMac configuration** window and click **Run a .exe file in this virtual drive**.



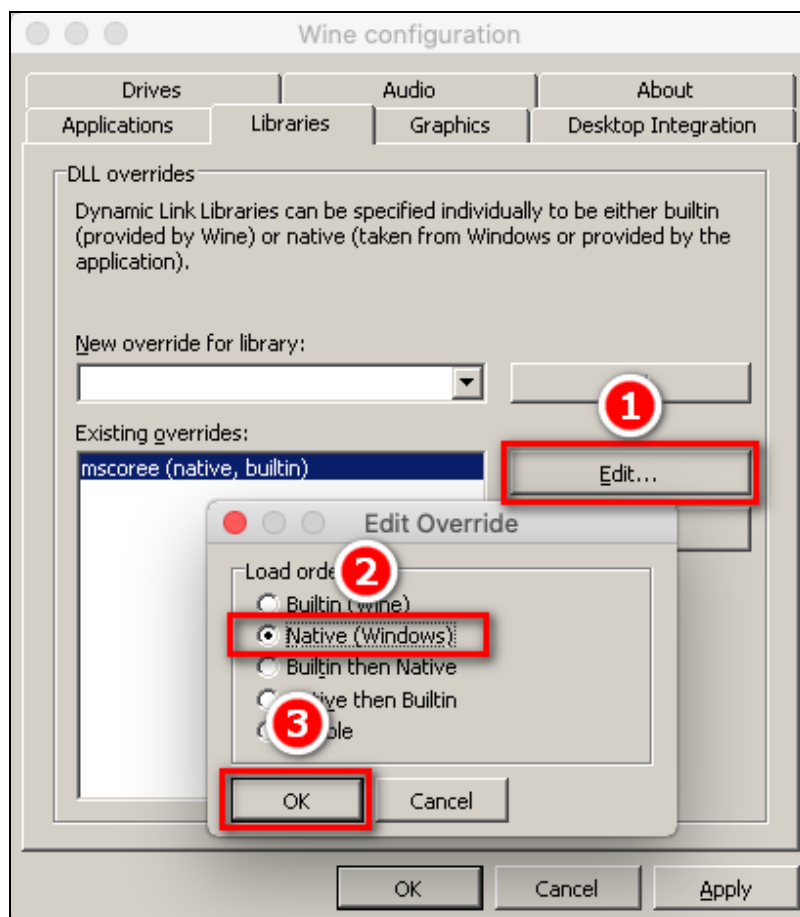
11.6.4. Select downloaded file and click **Open**. Follow the instructions in the .NET Framework 4.0 installer wizard and wait for the installation to complete.



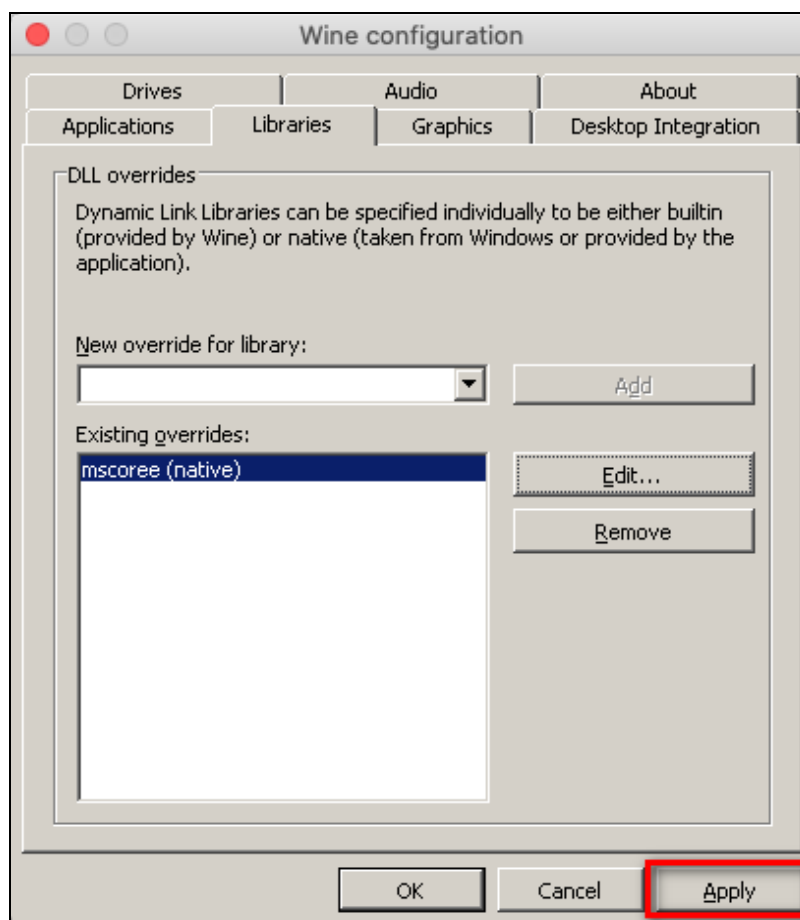
11.6.5. Select **Libraries** tab in the **Wine configuration** window, add a new override for library **mscoree**.



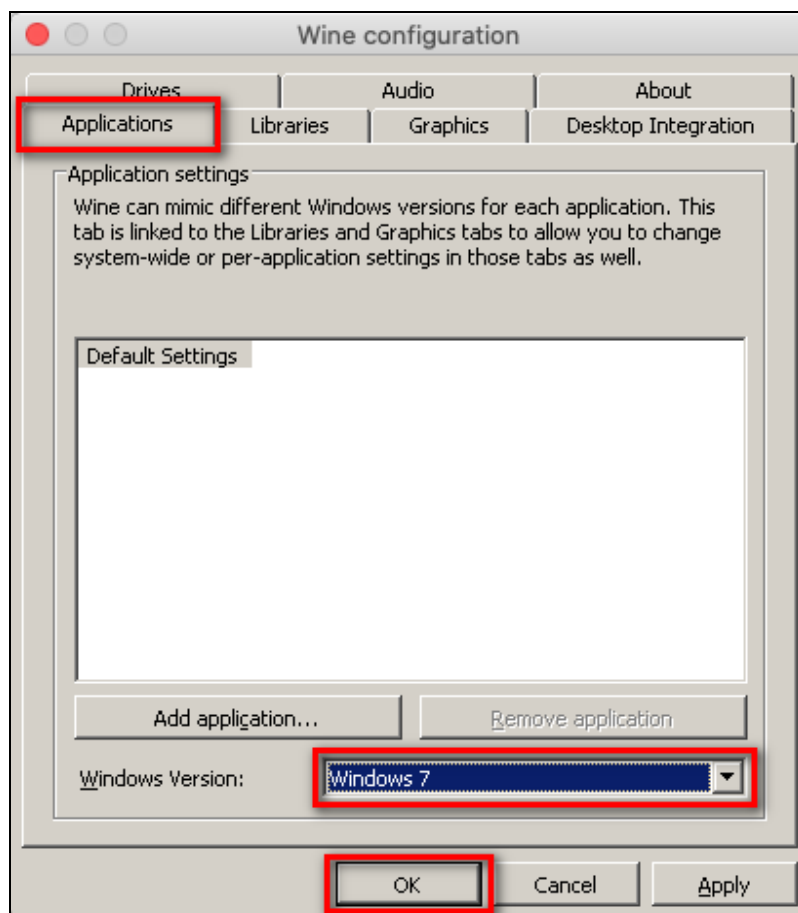
11.6.6. Select the new override in the **Existing overrides** field and click **Edit**. In the **Edit override** window select **Native (Windows)** option and click **OK**.



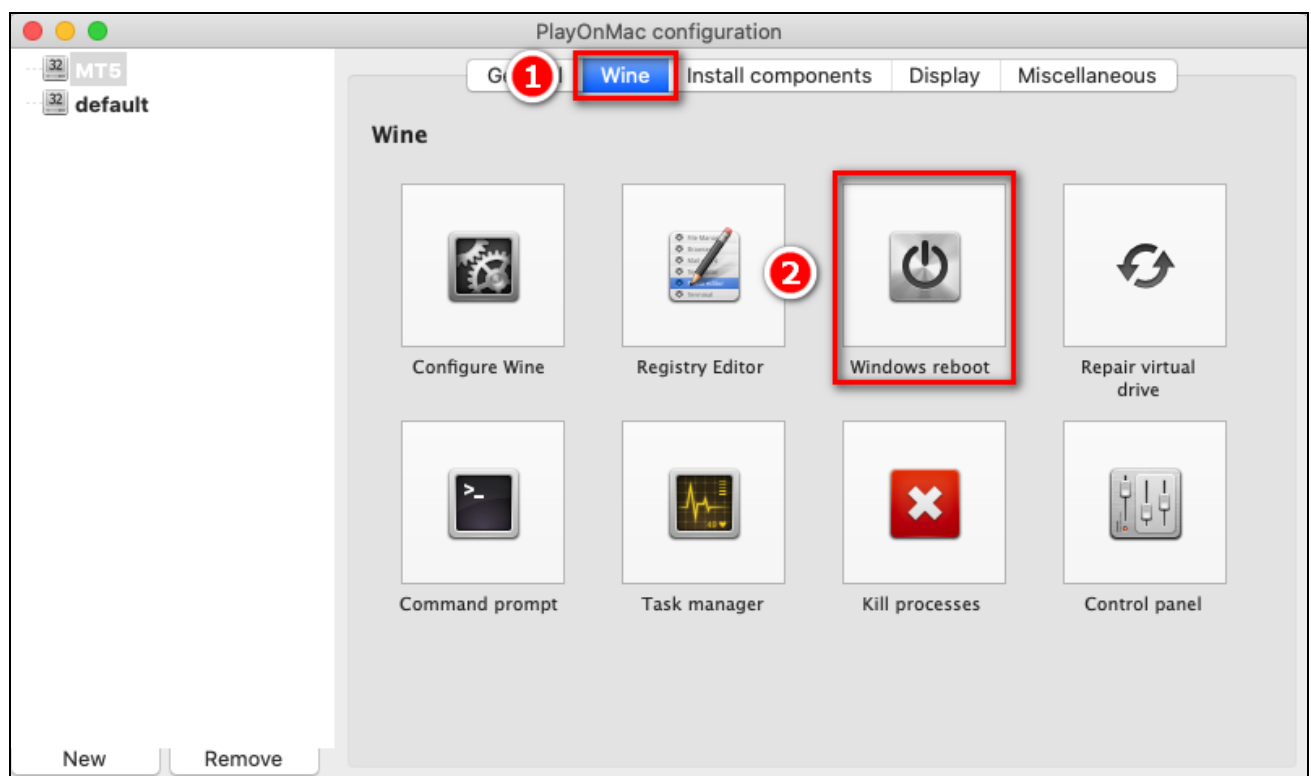
11.6.7. Click **Apply**.



11.6.8. Select **Applications** tab in the **Wine configuration** window. Select **Windows 7** or later Windows version and click **OK**.



11.6.9. [Download](#) and run the .NET Framework 4.8 installer. Refer to sections **11.6.3** and **11.6.4** of this manual to learn how to run .exe files on a Wine virtual drive. Follow the instructions in the .NET Framework 4.8 installer wizard and wait for the installation to complete. Allow restarting Windows or restart it manually by clicking **Reboot Windows** on the **Wine** tab in the **PlayOnMac configuration** window.



11.7. Install **MetaTrader 5** to your Wine virtual drive if not installed. Refer to sections **11.6.3** and **11.6.4** of this manual to learn how to run .exe files on a Wine virtual drive. Follow the instructions in the MetaTrader 5 installer wizard and wait for the installation to complete.

11.8. [Download](#) and run the CONNECTOR installer. Refer to sections **11.6.3** and **11.6.4** of this manual to learn how to run .exe files on a Wine virtual drive. Follow the instructions in the CONNECTOR installer wizard and wait for the installation to complete.



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