

# BOT/GUI Combo Manual

The Trading GUI makes it easier to sell/buy immediately, getting price differences, seeing how many XRP you'd get at a set price and change the price of an existing buy order with just 1 click.

The Trading GUI runs on NodeJs. You need to install NodeJS and the bitstamp\_trading\_tools.

The GUI works on a very primitive web server only "reacting" to commands coming from the HTML GUI.

The GUI is only worth half its value without the bot. The bot does the hard work. It makes sure, that if current price reaches a defined higher value, the existing buy order is deleted and with the money crypto is bought instantly.

## NodeJs installation

Windows/Mac:

<https://nodejs.org/en/download/>

After installation you should test the installation.

Windows:

Open command prompt:

`node --version`

Mac:

Open up a Terminal and type

`node --version`

This should print the version of NodeJS installed. If it does, then all is well.

## Install Trading Tools

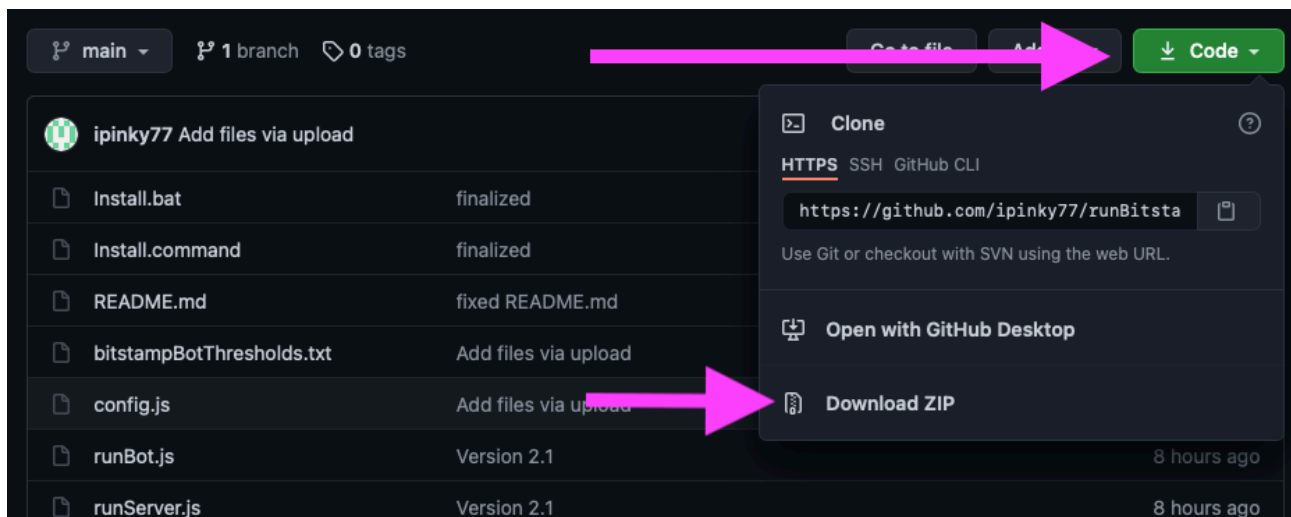
Windows (open command prompt and go to target directory):

Mac (open Terminal window and go to target directory):

`npm install bitstamp_trading_tools`

Download the files to run the tools from here:

<https://github.com/ipinky77/runBitstampTradingTools>



Create a dedicated directory and move all files from the ZIP there.

## Updating the tools

npm install bitstamp\_trading\_tools

## Installed files

| File                             | Explanation  |
|----------------------------------|--|
| runBot.js                        | node runBot.js starts the bot  |
| runServer.js                     | node runServer.js starts the web server for the GUI  |
| thresholds.json                  | <p>Is a JSON format file containing 2 values:<br/>"high" : price<br/>"low" : price</p> <p>you can define the name of this file in the configBOT.json AND the configGUI.json (make sure you use the same name in both files)</p> <p>You can change these values manually (or via the GUI) and the bot will pick the high up every x minutes (defined in the thresholdIntervall in configBOT.json)</p> |
| profiles/<br>defaultProfile.json | Default profile. Add your API key and secret. If you want to create additional profiles then copy this file, change API key/secret if required, though you can use multiple profiles for the same sub account on Bitstamp. Decide which default crypto/currency that profile should use.   |
| profiles/configBOT.json          | BOT configuration  |
| profiles/configGUI.json          | GUI configuration  |

## configBOT.json

These parameters you can change

| Parameter           | Explanation   |
|---------------------|---|
| debug               | The bot will print messages which comply with debugLevel to the screen<br>The bot will ALWAYS write the messages which comply with debugLevel to the log file |
| debugLevel          | 0=no messages<br>1=only very basic messages, normal usage<br>2=API results are displayed<br>3=used to find problems   |
| path_bot_thresholds | Is a json file (use .json as file suffix ) containing the high/low value the bot needs to do its job  |
| path_log            | Defines the name of the log file  |
| executeTrades       | false means the bot is NOT executing trades, use this to test that the bot indeed is working properly<br>true means the bot IS executing trades               |
| heartBeat           | Every x minutes the bot will issue a heart beat, so you know it's still running   |
| thresholdIntervall  | Every x minutes the bot will fetch new thresholds from the file   |

| Parameter              | Explanation   |
|------------------------|---|
| <b>type</b>            | BOT, do not change this value, make sure profiles for other bots do have this parameter too |
| <b>key</b>             | Add your API key in the bot profile   |
| <b>secret</b>          | Add your API secret in the bot profile  |
| <b>defaultCrypto</b>   | Add the crypto you want to trade in the bot profile   |
| <b>defaultCurrency</b> | Add the currency with which you trade in the bot profile                                    |

Due to the added parameters (key/secret/crypto/currency/type) you can now run multiple bots in parallel

## defaultGUIProfile.json

These parameters you can change. The default profile for the GUI needs ALL parameters. Any additional profile to be used in the GUI, only need the ones marked in red. But for convenience you can also just copy&paste this profile and just change name/currency/crypto and key/secret/uniqueID if required

| Parameter                  | Explanation   |
|----------------------------|---|
| <b>name</b>                | Give your profile a name, this will be the name displayed in the GUI, not the file name   |
| <b>debug</b>               | The bot will print messages which comply with debugLevel to the screen<br>The bot will ALWAYS write the messages which comply with debugLevel to the log file |
| <b>debugLevel</b>          | 0=no messages<br>1=only very basic messages, normal usage<br>2=API results are displayed<br>3=used to find problems   |
| <b>path_bot_thresholds</b> | Is a json file (use .json as file suffix ) containing the high/low value the bot needs to do its job  |
| <b>path_masks</b>          | Is a json file (use .json as file suffix) containing all masks you defined in the GUI   |
| <b>path_log</b>            | Defines the name of the log file  |
| <b>type</b>                | GUI, do not change this value, make sure other profiles for the GUI have this parameter too   |
| <b>key</b>                 | Add your API key in the GUI profile   |
| <b>secret</b>              | Add your API secret in the GUI profile  |
| <b>uniqueID</b>            | If you want to transfer assets into the sub account for this profile, then you need to add the uniqueID here  |
| <b>defaultCrypto</b>       | Add the crypto you want to trade in the GUI profile   |
| <b>defaultCurrency</b>     | Add the currency with which you trade in the GUI profile  |

## Profiles

For the GUI you can create preset “profiles”. A profile can distinct the sub-account on Bitstamp it is matched with, through the API key/secret pair, or simply use a different crypto/currency combination on the same sub account.

In other words:

You can create for each sub account you want to use the GUI for, a separate profile. For different sub accounts you NEED different profiles, as you have to supply API key/secret in the profile. And one API key/secret only works for 1 sub account.

Side note: you can have multiple API keys/secrets for the same sub account, for different purposes with different functionalities enabled.

If you trade multiple currency pairs with the same sub account, you can also create for each currency pair a profile. Then instead of switching crypto / currency, you just switch the profile.

There can only be ONE defaultProfile. See parameter defaultProfile in defaultGUIProfile.json. So for each subsequent profile you create, you have to set this parameter to false or delete it altogether.

Side note: If you intend to use the “Accounts/Transfers” functionality you need to supply the UniqueID of the sub account.

Bitstamp S.A.

Dashboard Markets Deposit Withdrawal

Account value: \$818.28

Settings

My information

Support

Activity

Log out

Withdrawal confirmations

Access control

API access

Mobile access

My devices

Connected apps

Bank accounts

Phone verification

SMS price alerts

Notifications

Sub accounts

Active sub accounts

Inactive sub accounts

|             |                     |               |
|-------------|---------------------|---------------|
| Trading Bot | Unique ID: 22031722 | Close Account |
|-------------|---------------------|---------------|

Available:

|       |               |      |            |       |            |      |            |
|-------|---------------|------|------------|-------|------------|------|------------|
| USD   | 0.00          | EUR  | 0.00       | GBP   | 0.00       | BTC  | 0.00000000 |
| XRP   | 1000.00000000 | LTC  | 0.00000000 | ETH   | 0.00000000 | BCH  | 0.00000000 |
| XLM   | 0.00000000    | PAX  | 0.000000   | LINK  | 0.00000000 | OMG  | 0.00000000 |
| USDC  | 0.000000      | ETH2 | 0.00000000 | ETH2R | 0.00000000 | AAVE | 0.00000000 |
| BAT   | 0.00000000    | UMA  | 0.00000000 | DAI   | 0.000000   | KNC  | 0.00000000 |
| MKR   | 0.00000000    | ZRX  | 0.00000000 | GUSD  | 0.000000   | ALGO | 0.00000000 |
| AUDIO | 0.00000000    | CRV  | 0.00000000 | SNX   | 0.00000000 | UNI  | 0.00000000 |
| YFI   | 0.00000000    | COMP | 0.00000000 | GRT   | 0.00000000 | USDT | 0.000000   |

## Running/Stopping the tools

### Run the server:

Open a terminal window, move to the Trading GUI directory (cd) and type:  
node runServer.js

### Stop the server:

Enter <ctrl><c> or directly close the window

### Run the bot:

Open a terminal window, move to the Trading GUI directory (cd) and type:  
node runBot.js

If you want to run multiple bots in parallel, for different sub accounts and/or crypto pairs, then you run the bot like  
node runBot.js nameOfTheBotProfile

The “nameOfTheBotProfile” is NOT the file name, it’s the name parameter of the profile. Each bot profile NEEDS to have ALL parameters, including the type

### Stop the server:

Enter <ctrl><c> or directly close the window

## Creating a sub account on Bitstamp

In the settings go to sub accounts, Active sub accounts.

If you want to transfer funds between the accounts you need to put uniqueID parameter to each profile in your config.js

# Creating an API Key on Bitstamp

Security

- Change password
- 2 Factor authentication
- Withdrawal confirmations

Access control

- API access**
- Mobile access
- My devices
- Connected apps

Bank accounts

- Phone verification
- SMS price alerts
- Notifications

Sub accounts

- Active sub accounts
- Inactive sub accounts

Associated account

Main account

Permissions

General permissions

- Account balance ☒
- User transactions ☒

Withdrawals

- BTC ☐
- XRP ☐
- LTC ☐
- ETH ☐
- BCH ☐
- Ripple IOU ☐

Transfers

- Transfer balance to main account ☒
- Transfer balance from main account ☒

Orders

- Open orders ☒
- Cancel order ☒
- Buy limit/market orders ☒
- Sell limit/market orders ☒

Liquidation address ☐

Withdrawal requests ☐

Also in the settings on Bitstamp under Access control. If you want to be able to move funds between sub accounts you need 1 API key with JUST the transfer balance to/from main account enabled ON the main account!

I do **NOT** recommend adding more functionality than that to the API for the **main** account.

## Using the Trading GUI

Profile Manual Trading Page Trading toggle Mode

**Get Balances** XRP USD

|           |                |           |
|-----------|----------------|-----------|
| Available | 42286.40825048 | 0.0000    |
| Reserved  | 1000.00000000  | 2000.0000 |
| Fee       |                | 0.130%    |

**Get last Sell Price** 0.8240

**Get Min/Max**

|              | no loss       | Min           | Max           |
|--------------|---------------|---------------|---------------|
| Percent      | 0%            | -4 %          | +3 %          |
| Price        | 0.8219        | 0.7890        | 0.8465        |
| expected XRP | 2430.34803109 | 2531.61253239 | 2359.56119524 |

**Get current Price** 0.8173

**Get target XRP** NaN target XRP

**Get target Price** 0.8173 target price

**Get open Order** 9949194 BUY

|       | actual        | down          | up            |
|-------|---------------|---------------|---------------|
| Price | 0.8173        | 0.8168        | 0.8178        |
| XRP   | 1223.51098713 | 1224.25995321 | 1222.76293688 |

Change by 0.0005 Decrease Price Increase Price

**show Mask Editor**

Bot will buy high at 10 write bot thresholds

Bot will buy low at 5 use values from Min/Max section

**Sell now**

**Buy now**

Version 2.0.0

## Get Balances

Clicking the link will retrieve both available and reserved crypto and currency and the current fee you have on Bitstamp.

Note:

The initial fee is high, but keeps on dropping very fast, specially if the XRP price is higher or if you trade more XRP.

[Get Balances](#)

XRP

USD

|            |               |           |
|------------|---------------|-----------|
| Available  | 1000.00000000 | 0.0000    |
| Reserved ? | 1000.00000000 | 2000.0000 |
| Fee        |               | 0.130%    |

## Get last Sell Price

The name is speaking for itself

[Get last Sell Price](#) 0.6222

Clicking the link will also update the section Get Min/Max

## Get Min/Max

[Get Min/Max](#)

|              | no loss | Min    | Max    |
|--------------|---------|--------|--------|
| Percent      | 0%      | -4 %   | +3 %   |
| Price        | 0.6208  | 0.5960 | 0.6395 |
| expected XRP | NaN     | NaN    | NaN    |

Clicking the link will:

- Calculate no loss (or zero loss) price. Meaning if you sell at this price you hardly lose any of your crypto.
- Calculate the minimum price you have to set in your buy order to get the percentage profit you set in the minimum field
- Calculate the maximum price you have to set in the buy order to minimise your loss according to the percentage set in the Max field in case you have to buy high!

**Attention:** the Max value is NOT related/connected to the **high** value from the Bot! This is just so you know where you would manually have to get in again. You can however set that Max price as **high** value for the bot.

## Get current Price

|                                   |                  |                |     |
|-----------------------------------|------------------|----------------|-----|
| expected XRP                      | NaN              | NaN            | NaN |
| <a href="#">Get current Price</a> | 0.6013           |                |     |
| <a href="#">Get target XRP</a>    | 1661.2340        | Target XRP     |     |
| <a href="#">Get target Price</a>  | 0.6013           | required price |     |
| <a href="#">Get open Order</a>    | 1275720181427200 |                |     |

Clicking the link will, as it names tells, fetch the last paid price on Bitstamp. It will also automatically calculate the section below. That way you know how many XRP you would get if you sold at that price

## Get target XRP / Get target Price

[Get target XRP](#)

1661.2346

Target XRP

[Get target Price](#)

0.6013

required price

If you have USD reserve you can use this section to calculate either the target price for a wanted XRP amount or the target XRP amount for a wanted price.

If you have an open SELL order, this section will calculate the price to reach a certain amount of (eg) USD.

It works as follows:

Enter a wanted price (a price you'd expect to happen), then click Get target XRP. This will include the fee into the calculation! The calculation uses the amounts in reserve balance, ie. the assets in existing orders.

Enter a wanted amount of XRP and click Get target Price. This will include the fee into the calculation. The calculation uses the amounts in reserve balance, ie. the assets in existing orders.

Scenarios:

a)

Say you had 1000 XRP and sold at 1\$. Your aim is to increase to 1050 XRP. So you enter 1050 into the field Target XRP and click the link Get target Price. The result will be the price you will be looking for.

b)

Say you had 1000 XRP and sold at 1\$. The price drops to 98 cents. You want to know how many XRP you'd receive if the price would drop to 97 cents. So you enter 0.97 into the field required price and click the link Get target XRP.

## Get open Order

This will fetch any open order, buy or sell.

You can see the order type in the GUI like below

[Get open Order](#)

1376060455989248

SELL

[Get open Order](#)

1376060688818181

BUY

The interface will move the price up or down by the value you set in the change by field.

For a buy order moving the price down means you make more XRP as result

For a sell order moving the price down means you make less currency as result.

Let's see, I have a sell order at 2\$ (very high so it does not execute for testing purposes)

[Get open Order](#)

1375730181427200

Price

actual  
2.00000

down  
2.0000

up  
2.0000

XRP

25

25

25

▲ ▲ ▲ ▲

Change by

0.0000

▼

▲

▼ ▼ ▼ ▼



In this section you can adjust by how much you want the price to change.  
You can then adjust the price of your buy order UP or DOWN by that amount with 1 single click!

Each arrow will change the corresponding digit up (for the up arrow) or down (for the down arrow)

2 clicks on the second up arrow will create this ( $0 + 2 \times 0.0100$ )

Change by

▲ ▲ ▲ ▲

0.0200

▼ ▼ ▼ ▼

New target prices if you change the price of the current buy order would be:

|       | actual  | down   | up     |
|-------|---------|--------|--------|
| Price | 2.00000 | 1.9800 | 2.0200 |

2 clicks on the third down arrow will create this ( $0.0200 - 2 \times 0.0010$ )

Change by

▲ ▲ ▲ ▲

0.0180

▼ ▼ ▼ ▼

New target prices if you change the price of the current buy order would be:

|       | actual  | down   | up     |
|-------|---------|--------|--------|
| Price | 2.00000 | 1.9820 | 2.0180 |

3 clicks on the 4th up arrow will create this ( $0.0180 + 3 \times 0.0001$ )

Change by

▲ ▲ ▲ ▲

0.0183

▼ ▼ ▼ ▼

New target prices if you change the price of the current buy order would be:

|       | actual  | down   | up     |
|-------|---------|--------|--------|
| Price | 2.00000 | 1.9817 | 2.0183 |

The green boxes show how much you could change the price of the current buy order with just one click!

The orange boxes show the resulting price on the buy order if you change that price up or down.

You may ask: why can't I just enter 2.0183 in the field and click a button. Why does it have to be so complicated?

IF you get really into trading a lot. This process will come in VERY handy.

Example:

Current buy order has a price of 1\$. You sold at 1.1\$ Price keeps getting closer to 1\$ and is dropping fast. If you have the Change by field setup like this:

▲ ▲ ▲ ▲

Change by

▼ ▼ ▼ ▼

You can with just 1 click lower the price buy order price to 0.99\$.

If the price keeps dropping to 1\$ and you think: Maybe it'll go down to 0.98\$. ONE more click and the price of your buy order is 0.98\$. Keeps the price dropping fast, you can (roughly) click 3 times per second to lower the price in your buy order. But don't overdo it! Decreasing the price by 10 cents and the market may not reach this price, so use small steps.

Right now, when the price is around 0.6, I personally change the price on the 3rd, sometimes on the 4th digit.

If you see however, the price keeps rising, check the order book!

## Write bot thresholds

|                      |                                |                                      |
|----------------------|--------------------------------|--------------------------------------|
| Bot will buy high at | <input type="text" value="2"/> | <a href="#">write bot thresholds</a> |
| Bot will buy low at  | <input type="text" value="1"/> |                                      |

Enter the **high** and **low** value for your bot conveniently here and click the link. The web server will update the high and low value into the thresholds file for the bot to pick up at the defined interval.

### ATTENTION!

*The bot will NOT adjust an existing buy order! Restarting the bot will neither do that! The bot will only work IF there is money in your account. So IF you want the bot to pickup the low too, then you HAVE to delete the existing order on Bitstamp first!*

## Sell now / Buy now

|                          |
|--------------------------|
| <a href="#">Sell now</a> |
| <a href="#">Buy now</a>  |

### Use these buttons in an emergency only!!!

If the price starts dropping fast and you think: maybe now, then click sell now. Start the bot thereafter or just use the GUI (if you can rest in front of the computer). At least you have sold immediately. Now you need take care that the buy order (either manually or via bot) is setup properly.

If the price starts rising fast and you are NOT using the bot to “cap” at the upper price limit, then you can buy XRP instantly with the Buy now. It'll cancel you existing buy order and place an instant sell.

You may use this too if the price drops really fast (maybe you have no time to adjust the change by section), like 1% per minute, just to make sure to realise some profit. Be aware though, that during such VERY high volatility, the ask prices usually differ WAY MORE from the bid prices than

during normal times. So it may be that you clicked that button once the price was at 0.95, but the lowest ask was 0.954 ,so you lose 4/10s of a cent per XRP.

## Important

In order to make sure your bot runs 100% fine you should consider setting the executeTrades parameter in the configBOT.js to false for 1-2 days. Check if the bot runs at night. Check if the bot picks up changed **high** values from the thresholds.json

You might wanna consider setting the heartbeat parameter in configBOT.js to a higher value 15 or 30 minutes to have less heart beat messages, or to a lower value 5, 10 to have more heart beat messages.

**The bot DOES NOT change any buy order! A changed low value has no effect. You can delete the buy order on Bitstamp, and restart the bot, then the bot will use the new low value to create a new buy order.**

You can however adjust the buy order yourself, either using the Trading GUI, or do it manually. Doing it manually means: You cancel the existing buy order and create a new one BEFORE the bot ticks the next heartbeat! **If the bot does not find a buy order during heart beat, it will stop, assuming the order executed.** You could simply restart it then. But make sure it's really running if you manually cancel the buy order and create a new one.

## Release Notes

All files have version numbers at the beginning in order to be able to support you guys well

### Version 2.0.5

Changed the profile structure. You are now able to run multiple bots. Includes an upgradeProfiles.js

### Version 2.0.0

This version has simplified the configuration a lot. You now can define profiles in the profiles folder.

The mask editor was introduced, so you can change which digit on the price the arrows will change.

### Version 1.2

completely redone the whole tool on NodeJS, no more Python required. Added additional functionality to the GUI (profiles, currency pairs, transactions overview, funds transfers) and made the whole package a whole lot easier to install and update.

Server and Bot are now in a node module, hidden away. Only 4 files are required:

- config.js
- runBot.js
- runServer.js
- thresholds.txt

### Version 1.1

Adds currency to the config.js. You can set usd, gbp, or eur as currency. It's the currency you trade in on Bitstamp

Streamlined logs on the console

Enabled handling SELL orders too via GUI, this will NOT affect the bot! The bot ONLY handles buy orders!

#### Updated files:

config.js

classBitstampClient.js  
serverBitstampGUI.js  
html/bitstampGUI.html  
html/GUI.css