gcAutobot manual 25.08.2023

What is necessary:

- Windows 10 at least

- Nox, configure it

- the screen is at least 1920x1080, it will not work on smaller screens. To check - you need to move the cursor to the lower right corner of the screen in the clickerman editor, and see what coordinates it shows: `X,Y:  1919,1079` . Also set Scale in display settings to 100% in **Scale and layout** section

- The taskbar must be at the bottom of the screen

- clickermann

- my app (if it doesn't open, check if all dlls are in the same place as exe file). Also the app cannot be opened with windows below 10:
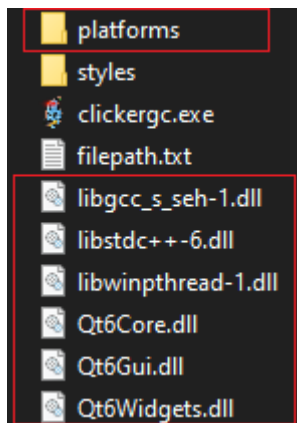
/platrofms
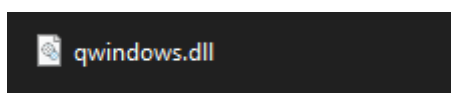
If you still cannot open app, you can write desired parameters directly inside variables in file gc_bot_settings.txt.

Links:

https://www.bignox.com/ - Nox

https://github.com/Silpux/GrowCastleAutobot- Clicker's github repo

https://soft.mydiv.net/win/download-Clickermann.html - where I downloaded clickermann

Probably checking for a script

Once such a message popped up. At this time, the script played and saved the image. The account was banned after this. I don't know what to do if it appears.

In this version of the clicker, it checks the screen for such green messages, and if such appears, it pauses for 2 minutes, restarts the game, and continues playing after 2 minutes. All this time screenshots are saved. This behavior can be changed by you**: gc_bot_lib.txt => CHECK_ON_HINT()** function.

Nox setup

Grow castle must be here. When it restarts the game, it will click here
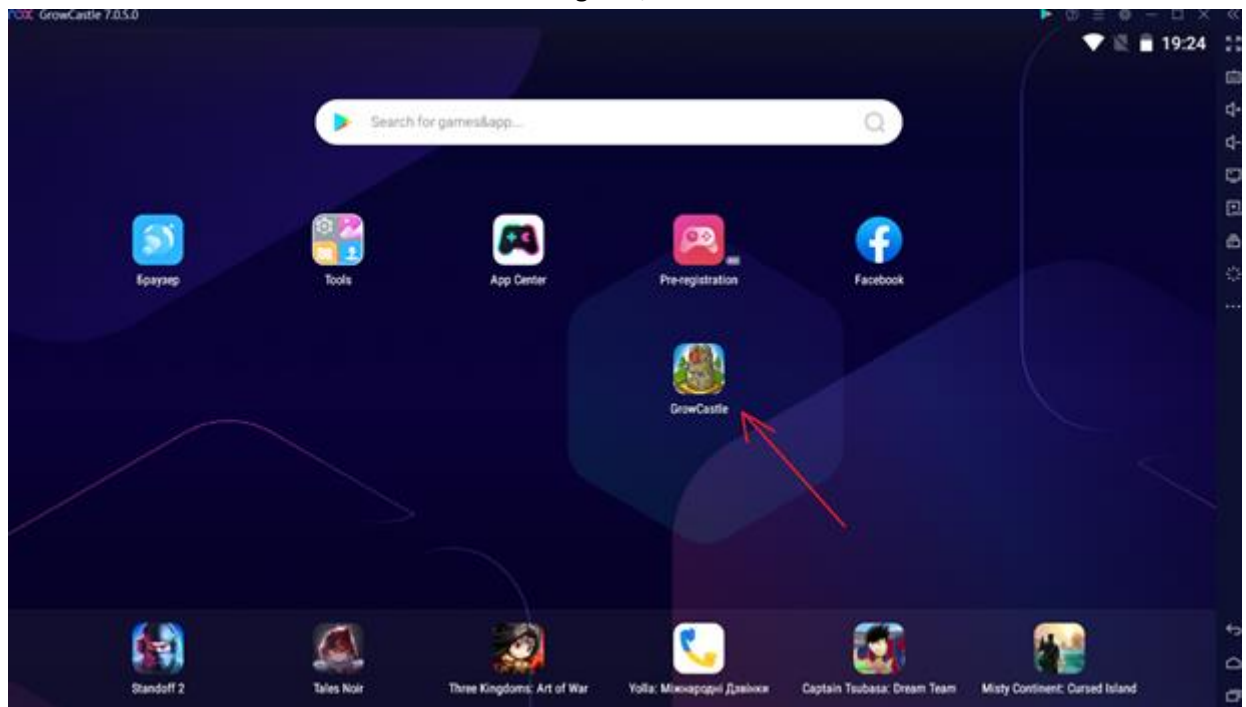
Move Reset button here:
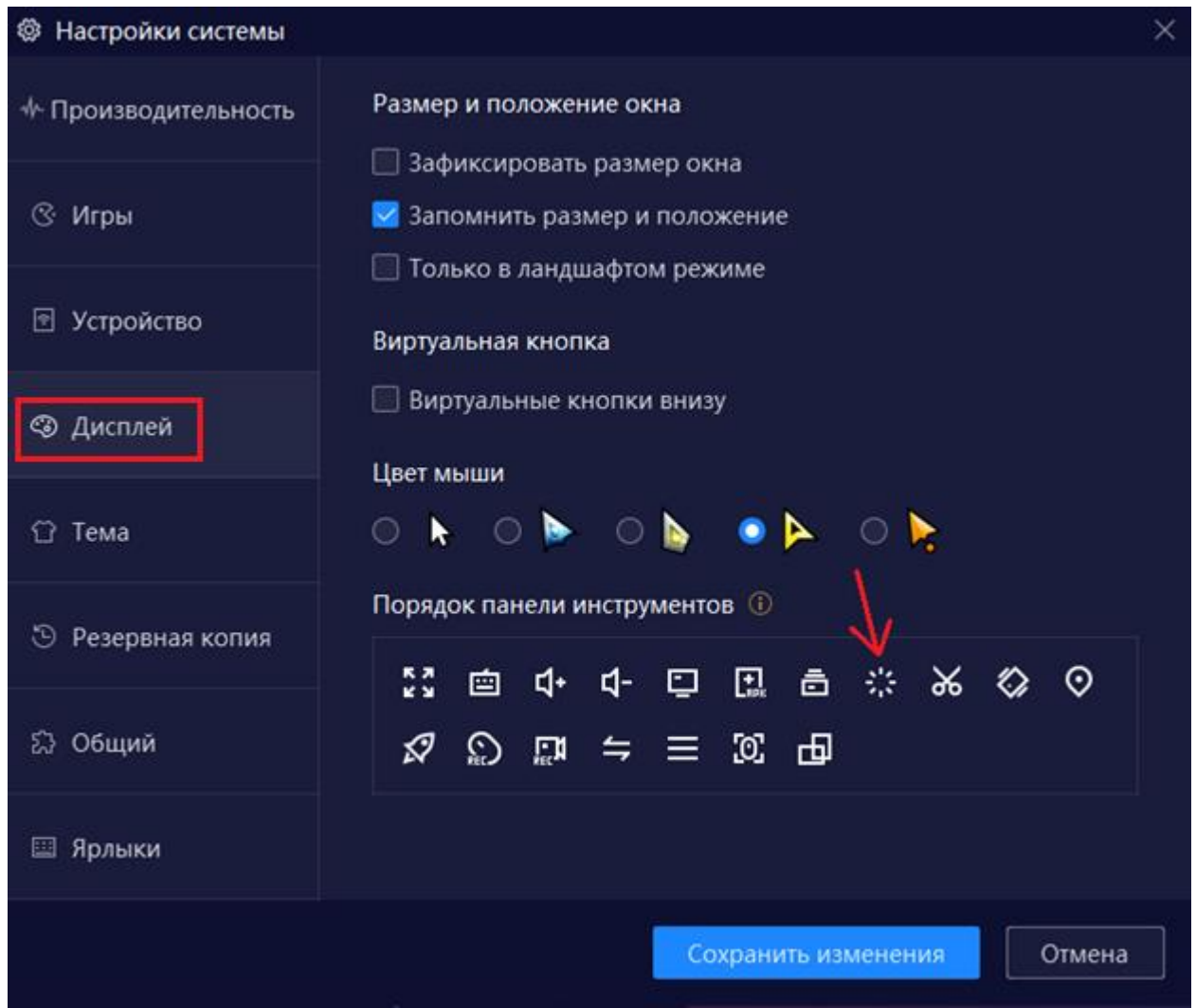
The button must be here:

Set resolution to 1920x1080
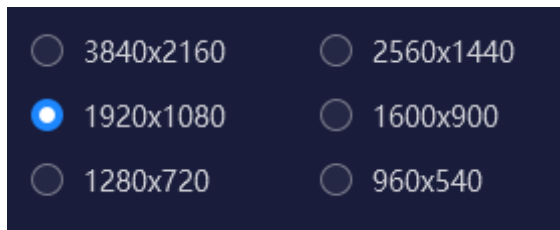
Check this thing to right-click to move backward (make sure that right click makes same thing as Esc button)
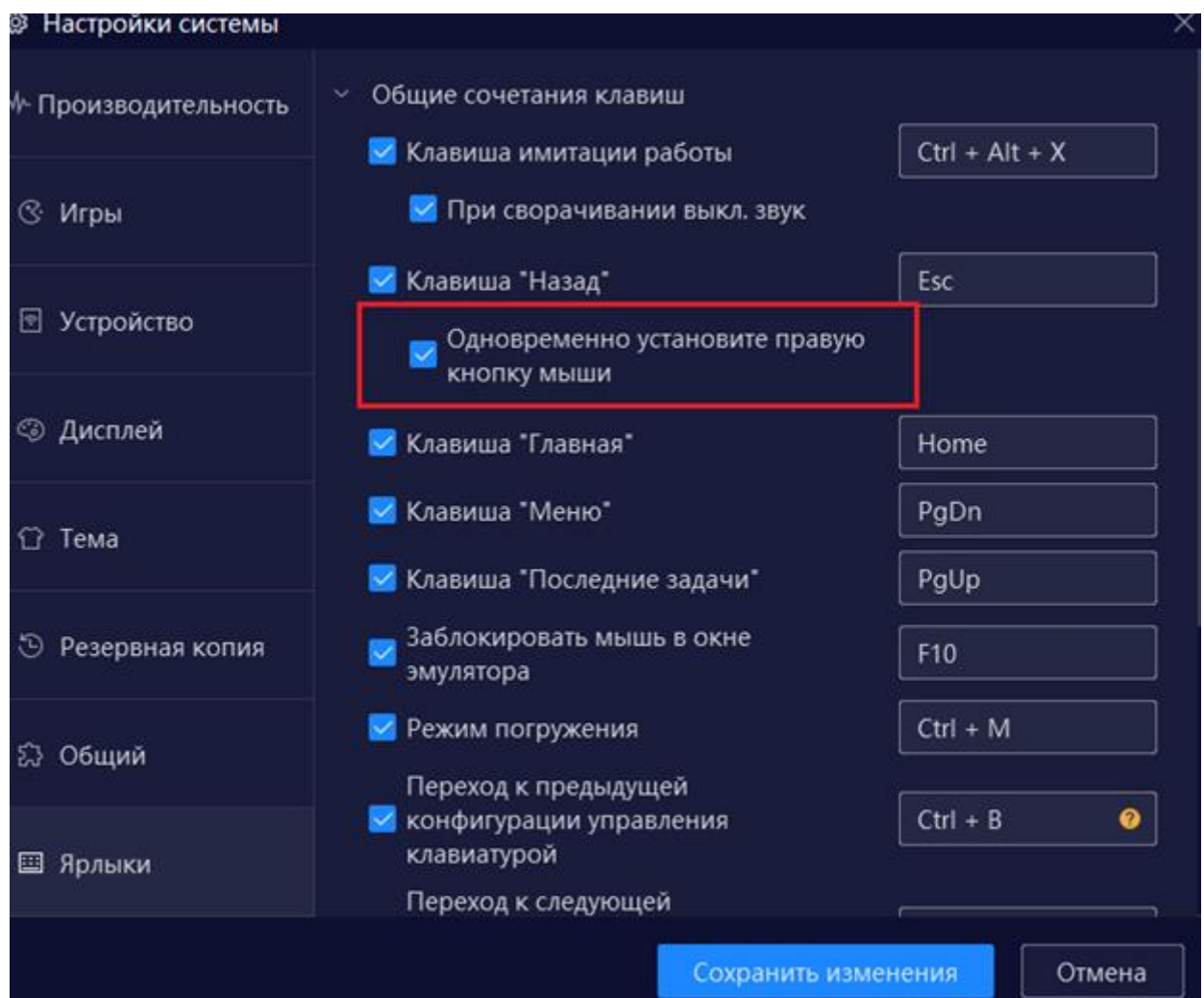
It is desirable that the computer normally plays at 60 frames per second. There may be problems in the menu due to lags.

Check the color of the sky in gc (for some reason some people had different color here). Skip this if you have 16182759, like me:

If you have different color code, then you need to go to **the gc_bot_ settings.txt** file - and in it, at the very beginning, write the number shown by the editor into the **SKY_COLOR** variable:

Also check some other colors to be sure that they have correct code:
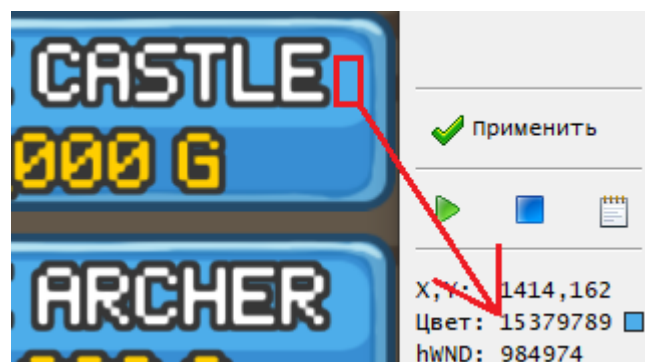
If you have the same values, everything should be ok.

When working with a clickerman, it is important to control that it does not open several times, otherwise problems will begin. Check here regularly:

 - ok not ok.
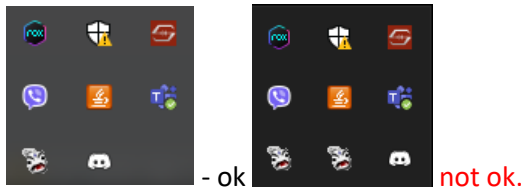
If several clickerman icons are displayed, it would be best to quit of all of them and open again.
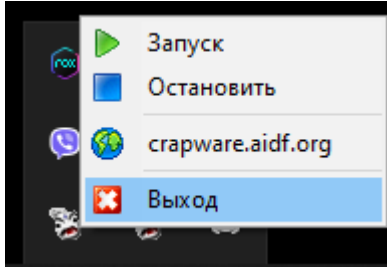
Be careful with minimizing clickermann window, because by default it goes in system tray and disappears from task bar. To fix this, go to clickermann's folder, open data, then config.ini file,

```
; Если 1, то в свернутом состоянии программа не будет отображаться на панели задач
; Только в системном трее
only_tray = 0
```

And put 0 to **only_tray**.

Clicker setup

Open clickermann, click on the folder:

Then you need to select the file __open_in_clickermann.cms from the clicker's core folder. Then you need to check the editor: the path to the clicker's folder should be indicated at the top, and in the editor it should be like this:

```
 1
 2 #logfile "gc_reg.txt"
 3
 4 #include "colorlist.txt"
 5 #include "gc_bot_lib.txt"
 6 #include "gc_bot_settings.txt"
 7 #include "gc_bot_compiling.txt"
 8 #include "gc_bot_solvecaptcha.txt"
 9 #include "gc_bot_init.txt"
10 #include "gc_bot_main.txt"
11
```

After **Parameters setup**, you can run and the clicker should work. If it doesn't work, carefully check if the nox is set up correctly. Especially carefully it is necessary to check the color of the sky in the gc. It must be specified correctly.

If the clicker starts the wave and do nothing, it is possible that you configured for example build 2, and told clicker to play on build 1, which is empty.

Parameters setup

Open the app, click on **Select main settings file**, then you need to select the **_main_settings.txt** file from the core folder.

After that it should be like this:
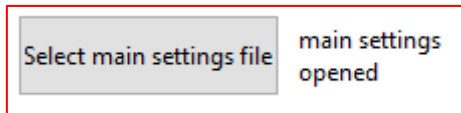
Now, to check if the changes are saved, you need to check the boxes somewhere and restart. If the checkboxes remain, then everything is fine. If not, then you need to re-select the settings file.

Window name – this is the name of the nox window. You need to enter its name there, without the version. then, by pressing **Set pos**, the window should take the size that is needed for the clicker to work.
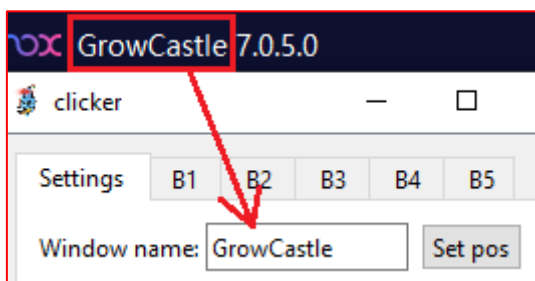
If it says cant find window, then there is an error in the title:
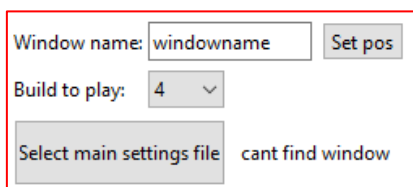
It is desirable to make sure that there are no windows with the same name as nox, as it can grab the wrong window, because of this there may be problems.
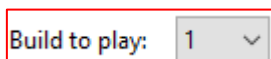
Build to play – the number of the build that the clicker will play.

All 5 builds are configured here:
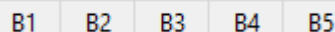
An example of a customized build:

<table>
<tr><td colspan="2">○ Pw</td></tr>
</table>

○ Pw
○ Smith
○ Orcband
○ Miliraty F
○ Chrono
○ clickable

Castle:

		Milit	X	Orc band
	X	X	X	X
		X	Pw	X
	X	Chrono	X	
	X			

Pw – pure wizard. It should be in the center, it is pressed when there are no clickable heroes, which have a few pixels left for recovery.

Smith – it is pressed when there is not enough hp. It may not have time to press when the damage is too fast. There can be problem when the HP number is way too high, and the checked pixel is overlapped with that number.

Orc band и **Military F** – if you specify them, they will be pressed once at the beginning of the wave when 30 waves are skipped (you can set them to be pressed always on wave start in Additional settings).

Chrono – will be pressed first at the beginning of the battle.

Clickable – other heroes that should be clicked. They are pressed if they have a blue line. Marked with an X.

It doesn't work on heroes that need a scope, such as Ice Mage. For them, you need to go into the code and change the behaviour for a specific position (here), or simply remove them.

☑ Farm dungeon: | Bone dragon ⌄ |

Mat ☑ B ☑ A ☑ S ☐ L ☐ E

Farm dungeon – from the drop-down list you select a dungeon, if there is a checkmark, it will play there.

For dragons: whether to dust clothes of different grades.

If the Internet has gone during dungeon farming, the clicker will try to enter it again. You can change it to hit replays in this case until next captcha in Additional settings, or leave it as it is.

If the inventory is full, will switch to replays anyways.

☑ Replays - make replays of the last wave. Cannot be combined with dungeon farming or skips.

☑ Skip waves
☐ 5 waves between skips
☐ Skip with oranges

Skips settings:

Skip waves – skip the waves obviously.

5 waves between skips – 5 waves between skips. That is, after skipping 30 waves, the next 5 waves will definitely not skip. This is so that the orc band always gives another wave. In addition, a couple of fractions of a second each wave will not be spent counting the number of white crystals.

Orc band and military are pressed only with a skip of 30 waves. It is useless to use them without the skip, as they eat the crystal, which is given as a reward for the wave. (can be changed in settings file)

Skip with oranges - skip with oranges. It will always skip, no matter what. If the oranges are over, every wave will enter the store, so it is important to control so that they do not end. **5 waves between skips** will be ignored when skip with oranges is enabled.

☑ AB with skips
⦿ Gab
○ Tab
Time between skips(s): 1500
Manual battles between AB: 5

AB with skips. Specify whether to put on gab or tab, and the number of seconds between skips in seconds in the **Time between skips** field. All the time the clicker will watch if there is movement in the game, and if the wave goes on for more than 2 minutes, or something blocks it, then a re-start is made, and the timer is reset, as if this time has passed. Then it will pass the captcha, if it comes out, and play manually with skips as many waves as indicated in the **Manual battles between AB** field. Put on AB, and in a circle.

You can simply specify 999999 seconds time and 0 manual passes. Then the clicker will control whether the game on AB has crashed, and in case of a crash or loss, it will restart and continue.

Of course, you need to enable Solve gift, otherwise it will stop stupidly, and this function will be useless.

If ab loses and stops, this is no longer a clicker problem. As a result, it will restart the wave constantly.

☐ Background mode
☑ Solve gift
☐ Restart on gift / 4 fails

Background mode – background mode. It will not steal the cursor with it and you can overlap the nox with another window, but you can't minimize the nox. Minimized windows are not rendered, so will not work. With it, the clicker cannot solve the captcha - due to the peculiarities of the solution algorithm.

Solve gift – solve the captcha or not.

Restart on gift / 4 fails – if **Solve gift** is active, then with 4 fails in a row, it will restart the game and stop, or stop immediately with the captcha on the screen. If **Solve gift** is inactive, do the same without any fails.

The captcha is solved as follows: after clicking start, the clicker moves the nox across the screen and buffers 18 frames of the heroes flying to their places:

Because of the fact that clickermann can hold only one screenshot in its buffer, and image processing takes time, it has to move nox window and screenshotting part of a screen to save whole heroe's path to finish position in one screenshot.

Then the picture is darkened in such a way as not to hurt the heroes, and in a few seconds it is determined where the hero has arrived, which must be followed (the path that has minimum number of dark pixels is considered correct) . Mistakes happen, and happen often enough.

Max fail chance for fail number - When solving captcha with my method, the clicker calculates the chance of a fail. This is not a real chance, but if translated into a real one, it's something like this: when the clicker shows 95%+, then in fact the chance is 40-50%, and if it shows <50%, then it's actually less then 10%.

Specify the maximum chance at which the clicker will make an attempt for each number of the fail.

On the example of the settings from the screen: as soon as the captcha got out, we have 0 fails on our account, so the maximum chance at which the clicker will make an attempt to solve the captcha is 101%, that is, always absolutely. If this is a miss, then now there is 1 fail on the account and now if the clicker shows a 91%+ chance of a fail, then it will restart and will not make an attempt. In this case, the captcha will reset, but it will only take 10 seconds to wait, and so it will restart until the chance of fail is <90%. And so on: if it misses again, it will expect an 80% chance, then a 50%.

On the right is indicated how many seconds you have to wait for the next attempt in case of a miss.

Ad for speed – watch ads for X3. It is called in the main menu of gc through store. Viewing ads is a separate algorithm. If the ad completed successfully, then the last time the ad was viewed will be written to the file **timerx3spd.txt** - this is necessary to save the last time the ad was viewed after the clicker stopped. Then after this hour the advertisement will not be checked. If the ad ends, it will not start and the clicker will automatically turn off viewing it.

If the time for watching ad has come, and clicker doesn't watch it, then write 0 inside **timerx3spd.txt.** It should solve the problem.

Ad for coins – ad for coins. After the wave, there is a delay of 0.4 seconds, after which it is checked whether the advertisement popped up. Viewed, and after that 5 waves are not checked, so as not to waste time between waves. If the ads are over, then each wave will be delayed by 0.4 seconds, and there is nothing you can do but disable viewing it.

Ad during X3 – whether to watch ads for coins during X3 with ads. You can turn it off to make the most of X3 from ads, or return it if you need to watch ads for coins as quickly as possible.

Ad after skip only – watch ads for coins only after skip 30 waves. There is more bonus gold, so there will be more gold from advertising. Cannot be activated without **Skip waves**.

After the start of the ad, the clicker waits for a couple of seconds, and simply presses the right click once a second until it sees one of the options for the pause button that I entered into its algorithm, or until the game opens. If the advertisement has not closed in a minute, then a restart is made. I met only 3 options for pauses in advertising - and I entered them into the clicker. In fact, this is just checking the color of the pixels at the given coordinates, where the continue button usually always appears - always the same color. If you have another ads UI, it can cause problems, and I cannot help then.

Heal altar – it will hit the altar when there is low hp, and the smith is either not in the build, or he is pressed already, if there is a smith, then it will press smith first.

Death altar – presses the altar on the dragon and dungeon - when the boss appears. Only works there.

Pw on boss – press pw on the bosses. When the wave reaches this point:

pw stops pressing, and when the hp bar of the bosses appears, it will be pressed after 200ms, as indicated on the screenshot. Then there will be higher chance to press all heroes at once on the bosses, and the wave will end faster.

Upgrade castle – upgrade castle parts for crystals. For correct operation, the upgrading parts must be on the floor specified in the **Floor**:

By pressing, the tower that stands on that floor opens and it is upgraded, while there are > 9 white crystals on the account, or until it has been upgraded 60 times in a row (if the tower has reached the maximum level). Tower upgrade is called every 10 battles. Check if it works correctly and doesn't spend oranges.

Screenshot.

In case of various errors, a screen is made. You can also screen the items and runes, and captcha (to identify errors in the algorithm). All screenshots are saved in the screens folder in the core clicker folder.
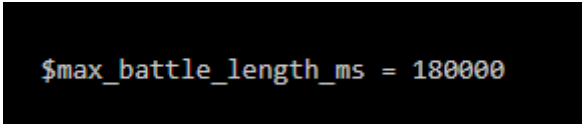
Items / Runes: Items will be screened only those that go to inventory. This is done so that you can safely throw off the screen to someone, and not be suspected of a bot. The same goes for runes. Screenshots are saved with the name ItemB, ItemA…, Rune

On esc – if the sky is blocked in the game for 4s in a row, this situation is non-standard and the clicker starts pressing the right click. At this point, a **pressesc** screen will be made. Also with this setting, screenshots from errors in AB mode will be saved: **AB_error**, **AB_error2**. Such as a long wave or some sort of failure.

Right click is pressed until the sky opens, or 10 times - if after 10 right clicks did not open the sky - a screen is made from the checkbox After 10 esc.

Long load – after clicking on gc from the nox menu when re-entering the game, a timer starts for 20 seconds. If the gc menu has not opened in 20 seconds, a **restartgcloadfail** / **resetgcloadfail** screen is made (from the restart or reset functions, respectively). If the game always loads longer than 20 seconds, it would be necessary to somehow speed up this process, or change this moment in the code.

Long wave – In the **gc_bot_settings.txt file**, the $max_battle_length_ms variable specifies the maximum duration of the wave in milliseconds. If so much time has passed since the start of the wave, then a restart will be made and the **longWave** screen is saved (nox can freeze in the middle of the wave, I had it).

```
$max_battle_length_ms = 180000
```

Nox load fail – if after the reset nox did not start in 2 minutes, a **noxloadfail** screen is made.

Nox main menu load fail – nox menu loading error, that is, if it was not possible to open the main menu of nox on restart. The screen of **noxmainloadfail** is saved.

Clear all fail – could not find clear all button in nox on restart. The **clearallfail** screen is saved.

Gift original: when solving the captcha, there may be different problems, you may need a screen of any of them. This is how the **gift original** is saved:
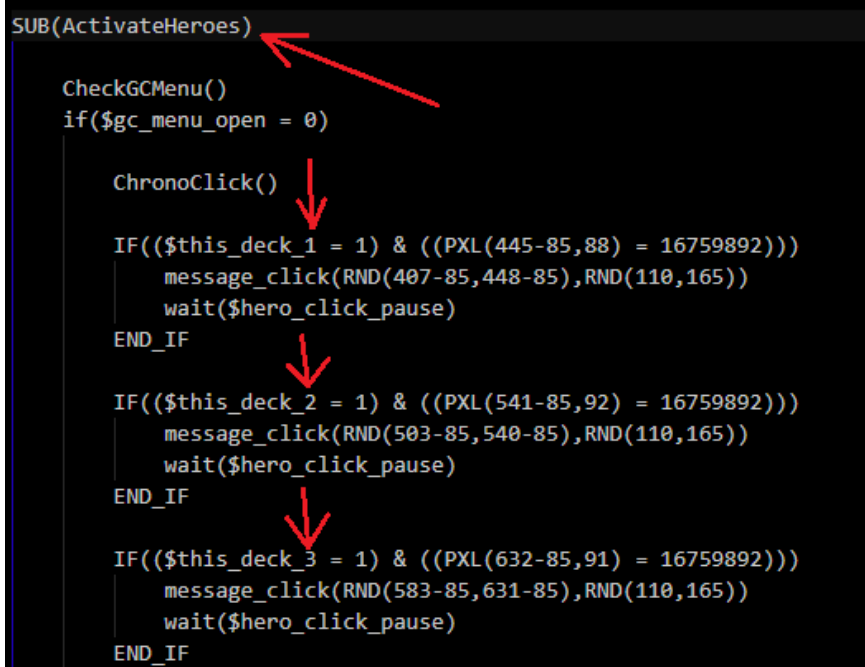
And this is **gift result**:

The clicker draws in green the option that it considers correct. Orange - if the chance of a miss is higher than average, then additionally draws the variant that is in 2nd place.

Aiming heroes setup

You need to go to gc_bot_lib.txt, find SUB(ActivateHeroes) or SUB(ActivateHeroesDun) there - normal or for dungeon.

There is a separate check for each hero. There are only 15 of them:

```
SUB(ActivateHeroes)

    CheckGCMenu()
    if($gc_menu_open = 0)

        ChronoClick()

        IF(($this_deck_1 = 1) & ((PXL(445-85,88) = 16759892)))
            message_click(RND(407-85,448-85),RND(110,165))
            wait($hero_click_pause)
        END_IF

        IF(($this_deck_2 = 1) & ((PXL(541-85,92) = 16759892)))
            message_click(RND(503-85,540-85),RND(110,165))
            wait($hero_click_pause)
        END_IF

        IF(($this_deck_3 = 1) & ((PXL(632-85,91) = 16759892)))
            message_click(RND(583-85,631-85),RND(110,165))
            wait($hero_click_pause)
        END_IF
```

Numeration of **$this_deck_n** goes like that:

```
//Castle slots:

//                  +-----+-----+-----+
//                  |     |     |     |
//                  |  1  |  2  |  3  |
//                  |     |     |     |
//          +-----+-----+-----+-----+
//          |     |     |     |     |
//          | 13  |  4  |  5  |  6  |
//          |     |     |     |     |
//          +-----+-----+-----+-----+
//                  |     |     |     |
//                  |  7  |  8  |  9  |
//                  |     |     |     |
//    +-----+       +-----+-----+-----+
//    |     |       |     |     |     |
//    | 14  |       | 10  | 11  | 12  |
//    |     |       |     |     |     |
//    +-----+       +-----+-----+-----+
//    |     |
//    | 15  |
//    |     |
//    +-----+
```

By doing this:

```
IF(($this_deck_6 = 1) & ((PXL(634-85,201) = 16759892)))
    message_click(RND(583-85,631-85),RND(203,276))
    wait($hero_click_pause)
END_IF
```

=>

```
IF(($this_deck_6 = 1) & ((PXL(634-85,201) = 16759892)))
    message_click(RND(583-85,631-85),RND(203,276))
    wait(0.1)
    message_click(1409-85,584)  // 5619175
    wait(0.05)
END_IF
```

After click the hero on position 6, the clicker will additionally click on the coordinates that are indicated in the second click. You have to pick them up yourself. The same is for each position. You can specify any combination of clicks. The main thing is to leave delays between clicks, otherwise the game will not respond on all of them.

Do not confuse ActivateHeroes and ActivateHeroesDun - the second one is intended for hit the heroes in the dungeon (there you need a more thorough check to see if the menu has opened or the timer on the dragon appeared).

Output files

Dungeon_statistics.txt – The number of items of different grades from each dragon. The numbers must be on their strings, otherwise the clicker will not be able to read them.

Informgift.txt – Each attempt to complete the captcha is recorded there:

```
+    h5p1, 02.01.2023 8:09:05, fc 38%, 0 restarts, 00:00:15
+    h1p2, 02.01.2023 8:28:02, fc 49.1%, 0 restarts, 00:00:15
+    h5p5, 02.01.2023 8:46:28, fc 19.8%, 0 restarts, 00:00:15
+    h3p5, 02.01.2023 9:06:31, fc 10.2%, 0 restarts, 00:00:14
-    h6p5, 02.01.2023 9:23:45, fc 90.8%, 0 restarts
+    h2p1, 02.01.2023 9:24:10, fc 5.4%, 0 restarts, 00:00:40
+    h2p4, 02.01.2023 9:43:42, fc 36.5%, 0 restarts, 00:00:13
+    h5p2, 02.01.2023 10:02:06, fc 15.2%, 0 restarts, 00:00:17
+    h6p7, 02.01.2023 10:26:52, fc 29%, 0 restarts, 00:00:13
```

+/- - whether the captcha passed. h,p - starting and finishing position of the hero, according to the clicker. Date, time, fc – fail chance calculated by the clicker, the number of restarts, and the time from the appearance of the captcha on the screen.
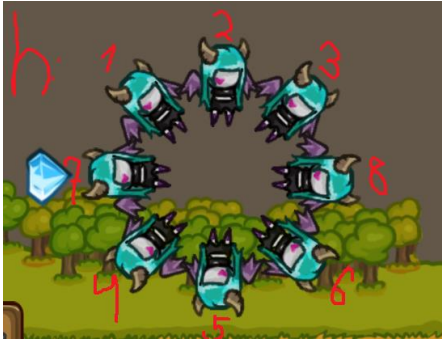
Gc_reg.txt – Clicker log. its actions are recorded there. From it you can understand the time, and possibly the cause of some errors. Its size is constantly growing, so you need to clean it periodically.

Additional settings

The **gc_bot_ settings.txt** file reads the settings from the **_main_settings.txt** file, and there are also variables that can only be set there. After changing values in the file, you have to open script editor and click apply.

$hero_click_pause – delay between hero clicks. If the value is too low, the game may not have time to respond to all clicks.

$battle_click_wait_ms – delay in milliseconds after clicking Battle, before removing the skip window, if too short, the clicker may either not remove it or hang in the menu and the exit window will pop up. You need to choose the most optimal value, or leave it as it is.

$wait_after_battle_click_AB – the same, only in ab mode, value in seconds. Must be greater than $battle_click_wait_ms for the battle and the AB button to appear.

$orc_and_military_on_skip_only – if 1, then the orc band and military will only be able to be pressed on the 30 wave skip. If 0, then they will always be pressed.

$max_battle_length_ms – The maximum duration of a battle in milliseconds. If more time has passed since the start of any battle, the clicker will re-enter the game.

$max_restarts_in_row_for_reset – The maximum number of restarts attempts before nox reset.

$dungeon_start_cast_on_boss – Start clicking heroes only when the boss came out (works in 3 last dungeons). 1 = enabled, 0 = disabled

$dungeon_start_cast_on_boss – delay in milliseconds after the boss's HP bar appears after which the heroes are clicked (works with **$dungeon_start_cast_on_boss** enabled only).

$mimic_collect_percent – The chance of collecting mimic chest – 0 to 100 value

$replays_if_dungeon_dont_load – If Internet has gone during dungeon farming, when 1, then will replay last wave until captcha. When 0, then will try to open dungeons again. If the inventory is full, will switch to replays no matter 0 or 1.

$log_CurrentBattleLength – if 1, it will constantly log the duration of the battle. Used for testing.

$print_settings – if 1, then all settings will be displayed in the log at startup.

Pop-up messages

Popup messages only work with [Background mode](#). For some events, you can enable or not:

$make_hints_gift – on captcha.

**$make_hints_cant_fight_dungeon** – if cannot start dungeon battle.

$make_hints_clearallfail –cant see Clear all button when restarts.

$make_hints_emergstop – stopping. Happens on captcha, when [Restart on gift](#) is active

$make_hints_escclick – if something blocks the game, and the clicker starts pressing right click.

$make_hints_long_gc_load – if the game takes too long to load (20 seconds). At the same moment, the clicker will quit and start the game again.

$make_hints_noxmainmenuloadfail – Nox main menu does not open. The main menu is determined by a white pixel in place of the strip from the play market, you shouldnt move it from there:
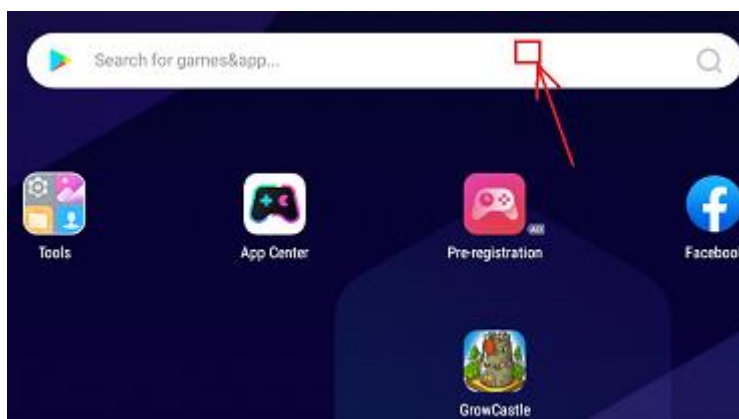
$make_hints_reset – If you had to reset nox. Nox reset is called if after **$max_restarts_in_row_for_reset** attempts to restart the GK in a row, the game menu has not opened.