



Blue Screen Simulator Plus

advanced bugcheck simulation technology

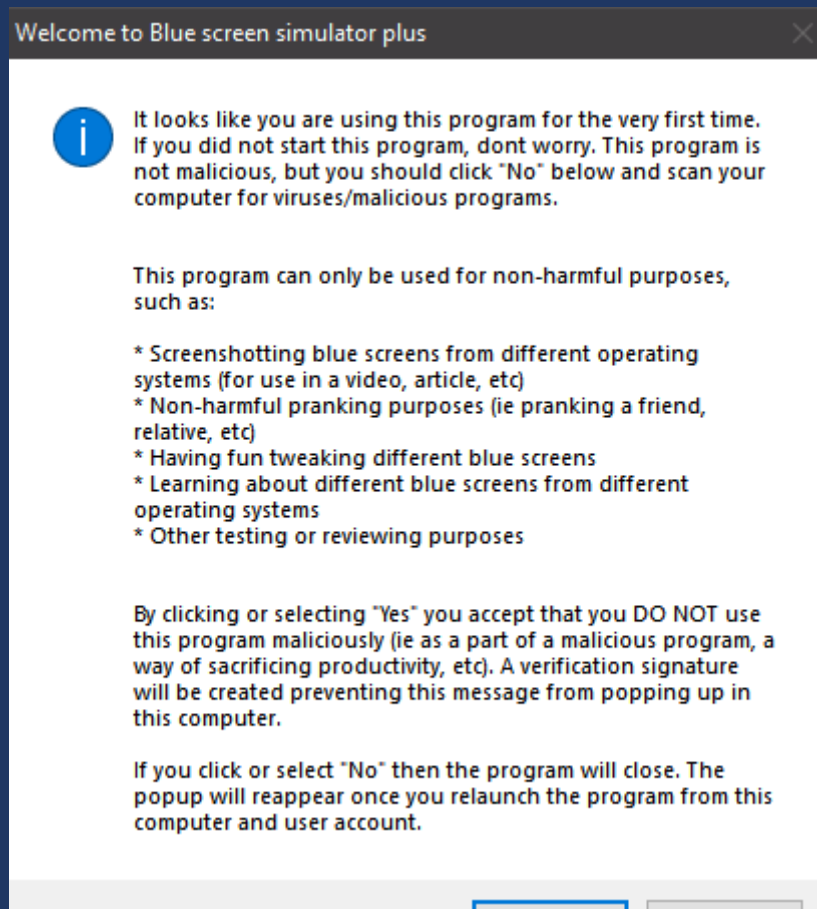
Offline Electronic User's Manual (revision 4)

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1. First Launch

After launching the program for the first time, you'll see the following message:

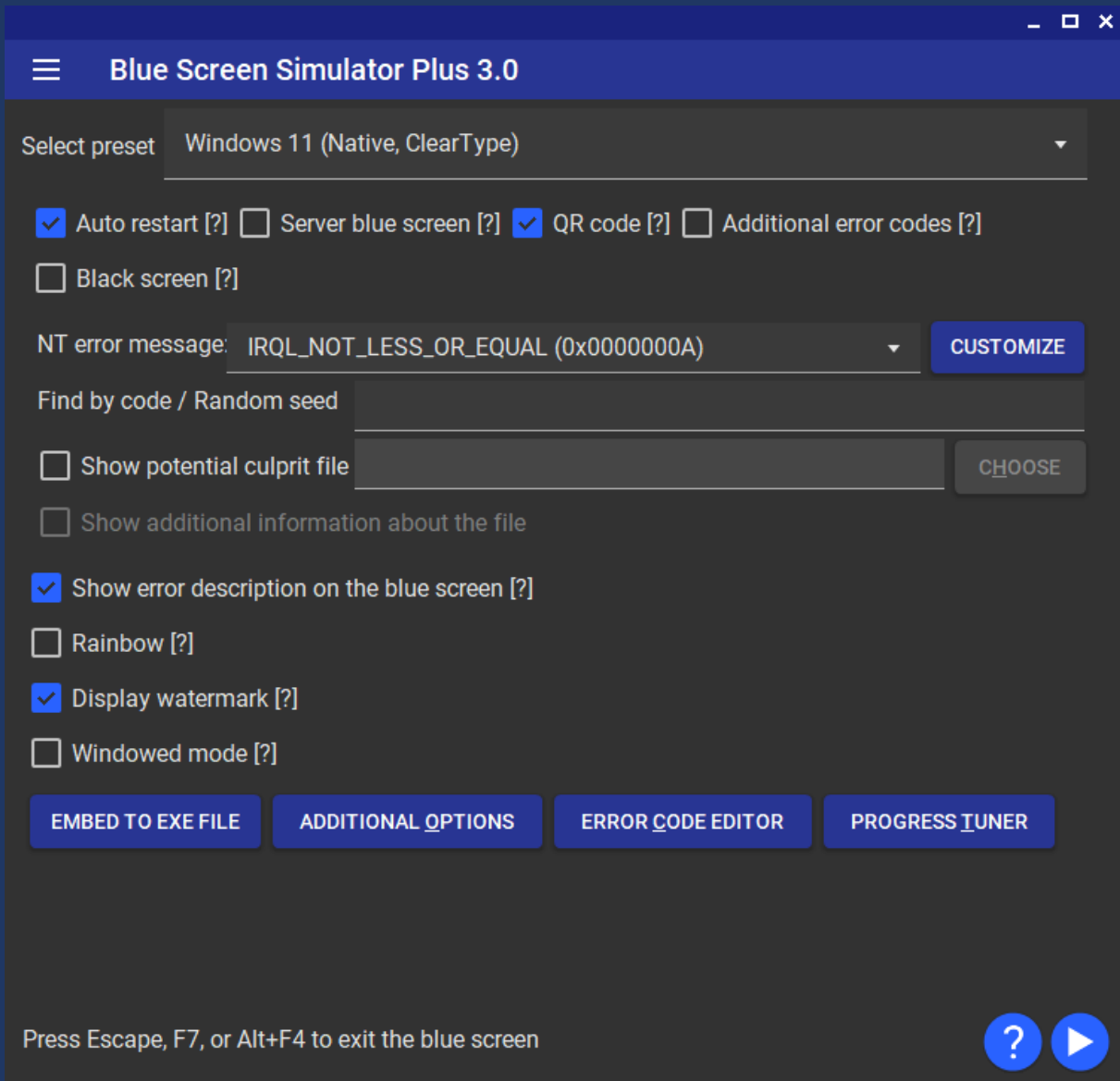


This message only appears if you launch the program for the first time or when you switch user account/computer. Read the message carefully and click "Yes" to continue. Please note that if this message appears when you didn't mean to launch the program, you are free to click "No".

If you are launching the program from a read-only media (such as a CD-R or a write-protected SD-card), this message may appear every single time.

2. User interface

After successfully launching the program, you'll see a simple user interface, that allows you to choose a blue screen that suits your needs!

The image shows the user interface of 'Blue Screen Simulator Plus 3.0'. The window has a dark blue header with the title and standard window controls. Below the header, there's a 'Select preset' dropdown menu currently set to 'Windows 11 (Native, ClearType)'. A series of checkboxes are arranged in rows: 'Auto restart [?]' (checked), 'Server blue screen [?]' (unchecked), 'QR code [?]' (checked), 'Additional error codes [?]' (unchecked), 'Black screen [?]' (unchecked), 'Show error description on the blue screen [?]' (checked), 'Rainbow [?]' (unchecked), 'Display watermark [?]' (checked), and 'Windowed mode [?]' (unchecked). The 'NT error message' is set to 'IRQL_NOT_LESS_OR_EQUAL (0x0000000A)' with a 'CUSTOMIZE' button next to it. There are input fields for 'Find by code / Random seed' and 'Show potential culprit file', with a 'CHOOSE' button. At the bottom, there are four buttons: 'EMBED TO EXE FILE', 'ADDITIONAL OPTIONS', 'ERROR CODE EDITOR', and 'PROGRESS TUNER'. A footer message says 'Press Escape, F7, or Alt+F4 to exit the blue screen' next to a help icon (?) and a play button icon.

Clicking the hamburger menu button allows you to access the following options:

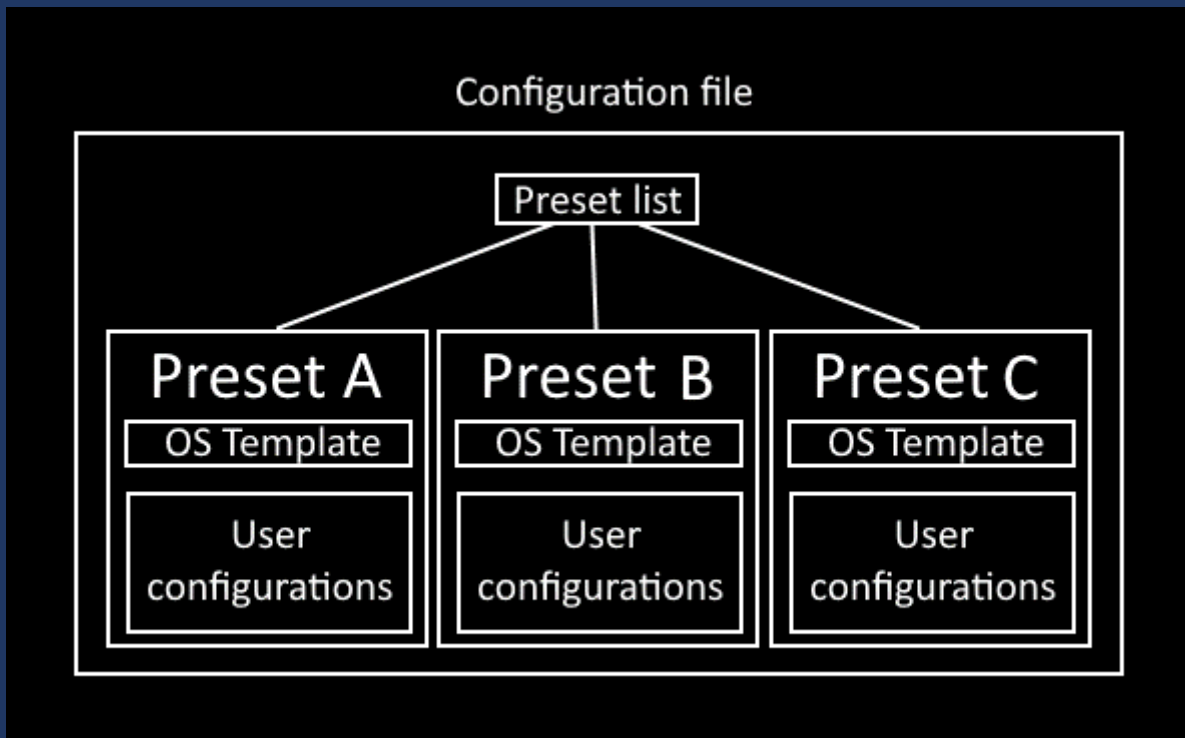
1. Simulator – Allows you to select a configuration template, change various settings for it and start the simulator
2. Trace log – Displays a list of things the program has done and allows you to dump it as a log file. If any error occur, please send this log to the developer.
3. Settings – A way to access the settings panel, which has its own hamburger menu with the following options

- a. Update settings - Change settings related to updates and also check for any new version update
 - b. Simulator settings – Configure presets and misc simulator settings
 - c. Appearance – Configure settings related to how the program looks, such as dark mode, color schemes and accessibility options
- 4. Help and about – in case you need more info
 - a. About – Version info and other stuff about the program
 - b. Help – Describes system requirements, how to get help, and the purposes of Blue Screen Simulator Plus
 - c. Command line help – Displays arguments and switches you can use when launching the program from command line
- 5. Prank mode – Allows you to setup and run a blue screen prank

3. Presets

3.1. Explaining the concept

This program uses presets, which contain settings about themselves (User configurations) and what operating system blue screens they should use and thus what options should be visible for the user (OS template). These presets are stored in a list, which can be saved inside a configuration file.

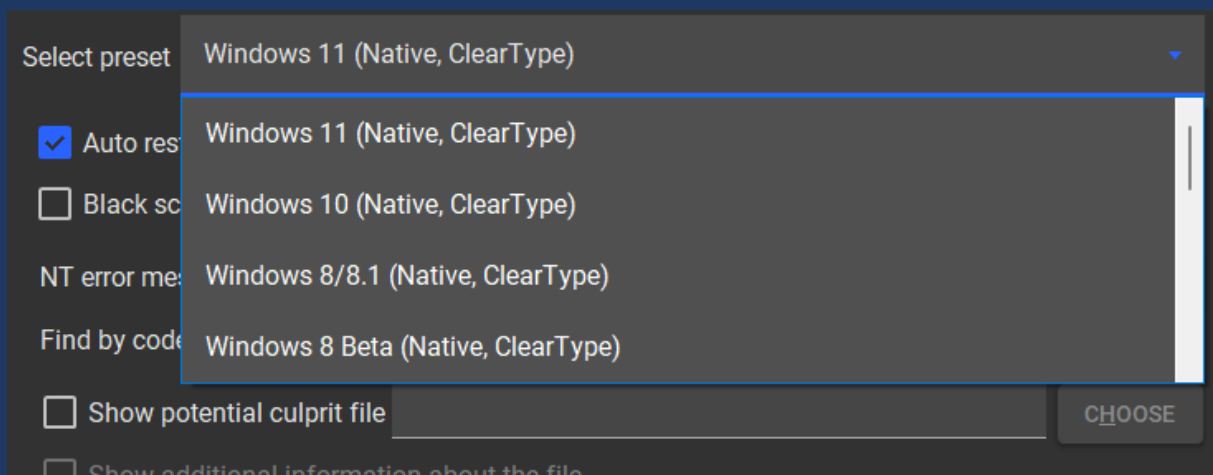


The default presets are the following (the name in brackets is the OS template):

- Windows 11 (Native, ClearType) [Windows 11]
- Windows 10 (Native, ClearType) [Windows 10]
- Windows 8/8.1 (Native, ClearType) [Windows 8/8.1]
- Windows 8 Beta (Native, ClearType) [Windows 8 Beta] (version 3.0+ only)
- Windows Vista/7 (640x480, ClearType) [Windows Vista/7] or Windows 7 (640x480, ClearType) [Windows 7] (version 2.1+ only)
- Windows Vista (640x480, Standard) [Windows Vista] (version 2.1+ only)
- Windows XP (640x480, Standard) [Windows XP]

- Windows 2000 Professional/Server Family (640x480, Standard) [Windows 2000]
- Windows NT 4.0/3.5x (Text mode, Standard) [Windows NT 3.x/4.0] (version 3.0+ only) or Windows NT 4.0/3.x (Text mode, Standard) [Windows NT 3.x/4.0] (before version 3.0)
- Windows NT 3.1x (Text mode, Standard) [Windows NT 3.x/4.0] (version 3.0+ only)
- Windows CE 3.0 and later (750x400, Standard) [Windows CE]
- Windows 9x/Millennium Edition (Text mode, Standard) [Windows 9x/Me]
- Windows 3.1 (Text mode, Standard) [Windows 3.1x]
- Windows 1.x/2.x (Text mode, Standard) [Windows 1.x/2.x]

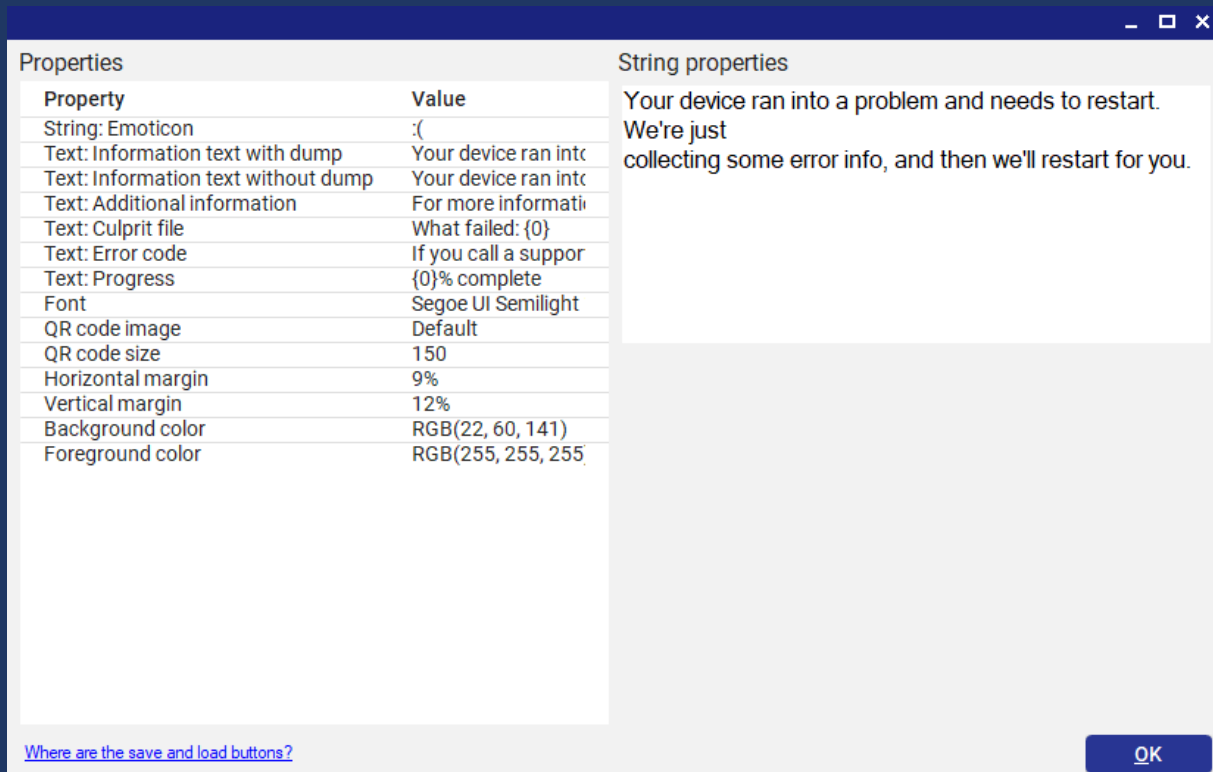
Each one of these presets can be seen in a drop down list at the main interface.



Selecting each one, will display a different set of configurable blue screen options. To see a quick overview of each option, you can move your mouse over one and see how this option is going to affect how the blue screen looks. As mentioned before, all of these options are stored inside the preset, meaning any changes made in one preset will NOT carry over to another preset (e.g. if you enable windowed mode in one preset, it will be disabled in other presets).

3.2. Additional options

To see even more settings you can change, click on the additional options button. This will open up a window, that should look something like this:



In the „Properties“ section, you can see all of the settings you are able to modify for this particular preset. The property column displays the name of a setting you may want to see/modify. The „value“ column displays what this setting is currently set to. Clicking on one of these settings will let you change the value on the right side.

Before version 3.0: The types of settings are displayed with icons. String values (basically anything text) is displayed with an „Aa“ symbol. Color settings are displayed with Red, Green, and Blue rectangles. Other settings use gears as the icon. All settings are applied immediately as soon as they are changed. You can click OK to close this window.

3.3. Error code editor

Most blue screens in BSSP have a section that contains memory address codes, and in Windows 8 and above OS-s, they can be enabled if you tick „Additional error codes“. Here's an example of where the memory address codes are located on a Windows XP blue screen:

```
bluescreen simulator plus
A problem has been detected and windows has been shut down to prevent damage
to your computer.

DRIVER_IRQL_NOT_LESS_OR_EQUAL

If this is the first time you've seen this Stop error screen,
restart your computer. If this screen appears again, follow
these steps:

Check to make sure any new hardware or software is properly installed.
If this is a new installation, ask your hardware or software manufacturer
for any windows updates you might need.

If problems continue, disable or remove any newly installed hardware
or software. Disable BIOS memory options such as caching or shadowing.
If you need to use Safe mode to remove or disable components, restart
your computer, press F8 to select Advanced Startup Options, and then
select Safe Mode.

Technical information:

*** STOP: 0x0000000A (0x2B797968, 0x5C237A51, 0x7ECC7C3A, 0xA0777D13)

Beginning dump of physical memory
Physical memory dump complete.
Contact your system administrator or technical support group for further
assistance.
```

By default these are set to always display random symbols every character. But depending on your needs, this may not be realistic enough. If this is the case, you can use the error code editor to make some characters fixed and others random.

After clicking on the „Error code editor“ button in the main interface, you'll be presented with this window:

Version 3.x

Error code editor

The following error code method will be used:

0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF

☒ Code 1 ☐ Code 2 ☐ Code 3 ☐ Code 4

RRRRRRRRRRRRRRRR ✓

APPLY TO ALL NULL CODE CALCULATE RANDOM CODE

Version 2.x

Error code generation - Windows 10 (Native, ClearType)

The following error code method will be used

0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF, 0xFFFFFFFFFFFFFFFF

☒ Code 1 ☐ Code 2 ☐ Code 3 ☐ Code 4

Null code Random code

Code 1	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Random	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set
Null (0)	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set	Set

Fixed (0-F)

Cancel OK

Below the text „The following error code method will be used“, you can see a bunch of characters that represent how the memory address codes are generated. If a character is set to „R“ (as is the case in this screenshot for every character), then that character will be randomly chosen. If it isn't, it'll always be that particular value.

The radio buttons with a label „Code N“ (where N is a number) represent which particular memory address code you are editing. Click on one of them to change to that particular code.

- The „Random code“ button sets the entire block, which you’ve selected, to all random characters.
- The „Null code“ button sets the entire block, which you’ve selected, to all zeroes.
- The „Calculate“ button sets all of the random values (R) to static values. E.g. RR123RR might turn into A212311 [Version 3.0+ only]
- The „Apply to all“ button copies current block value to all other blocks. [Version 3.0+ only]

Version 1.x and 2.x

In the middle, you find a table. On the first row, you see all characters layed out into columns, and aligned with buttons.

Click on the first „Set“ button below a desired character, will set it to „R“ (random character).

Click on the second „Set“ button will set it to „0“.

Clicking on a space right below the second set button, will allow you to enter a custom character with a keyboard. If you enter an invalid character, it will not be modified. Valid characters are numbers from 0-9 and letters from A-F.

All changes made will be displayed on the first column, as well as the preview outside the table.

If you don’t like the changes you’ve made, click on the „Cancel“ button. If you want to keep these changes, click on the „OK“ button.

Version 3.0

In the middle you find a textbox, where you can edit the code values. Next to it you’ll see either a tick mark or cross, which indicates whether or not the input is valid. For the content to be considered valid, it must be 16 characters long and contain one of the following characters:
0123456789ABCDEFR.

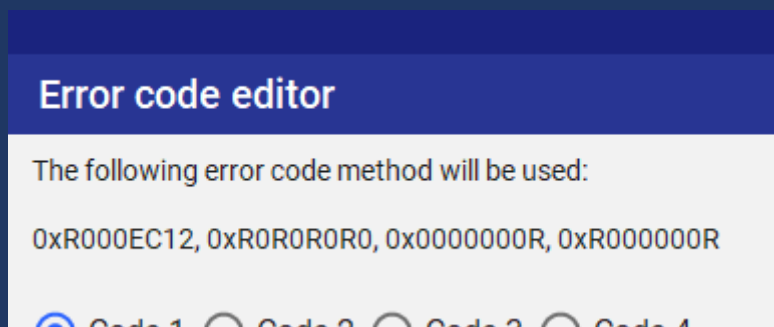
If a character is „R“, then it is replaced with a random value during blue screen generation. If it’s set to any ohter value, it’ll not be changed.

If the value is invalid, it’ll not be applied to the block and a ding sound will be played. Otherwise, the changes will be displayed on the top text display.

All changes are applied automatically.

If you try to edit codes on an operating system that doesn't support memory address codes (such as Windows CE), you'll receive an error message.

Here's an example configuration and how it might look like on an error screen:



```
bluescreen simulator plus
A problem has been detected and windows has been shut down to prevent damage
to your computer.

DRIVER_IRQL_NOT_LESS_OR_EQUAL

If this is the first time you've seen this Stop error screen,
restart your computer. If this screen appears again, follow
these steps:

Check to make sure any new hardware or software is properly installed.
If this is a new installation, ask your hardware or software manufacturer
for any windows updates you might need.

If problems continue, disable or remove any newly installed hardware
or software. Disable BIOS memory options such as caching or shadowing.
If you need to use Safe mode to remove or disable components, restart
your computer, press F8 to select Advanced Startup Options, and then
select Safe Mode.

Technical information:

*** STOP: 0x0000000A (0x1000EC12, 0x40D01070, 0x0000000E, 0x30000008)

Beginning dump of physical memory
Physical memory dump complete.
Contact your system administrator or technical support group for further
assistance.
```

3.4. Advanced NT options

On a few operating systems, such as Windows XP, Vista/7, and NT 3.x/4.0, you'll have access to advanced NT options. In the case of Windows NT 3.x/4.0 blue screen, you'll be able to use this tool to modify every file that appears on the error screen as well as every code next to it. In other screens, you'll be able to modify the codes that appear when the „Show additional information about the file“ checkbox is checked.

Windows XP example:

```
bluescreen simulator plus
A problem has been detected and windows has been shut down to prevent damage
to your computer.

The problem seems to be caused by the following file: NTFS.SYS

DRIVER_IRQL_NOT_LESS_OR_EQUAL

If this is the first time you've seen this stop error screen,
restart your computer. If this screen appears again, follow
these steps:

Check to make sure any new hardware or software is properly installed.
If this is a new installation, ask your hardware or software manufacturer
for any windows updates you might need.

If problems continue, disable or remove any newly installed hardware
or software. Disable BIOS memory options such as caching or shadowing.
If you need to use safe mode to remove or disable components, restart
your computer, press F8 to select Advanced Startup Options, and then
select Safe Mode.

Technical information:

*** STOP: 0x0000000A (0xE000EC12, 0x20D02050, 0x00000009, 0x10000002)

*** NTFS.SYS - Address 9EC9C49B base at C173C684, DateStamp 022cc76c
```

Windows NT 3.x/4.0 example:

```
bluescreen simulator plus
*** STOP: 0x0000000A (0x868B3737, 0x4BE8A788, 0x7D93A871, 0x9E4CA85A)
IRQL_NOT_LESS_OR_EQUAL

CPUID: GenuineIntel 6.3.3 irql:1f SYSVER 0xf0000565

Dll Base DateStmp - Name
6dc7dc4c 13245c9c - ntfs.sys
45cd5d86 76785e6e - rt640x64.sys
a8225147 6e8eb098 - srv2.sys
66ac8339 2c19039a - vmswitch.sys
5db30473 806d055c - storport.sys
b117e745 77646696 - clfs.sys
a81d687e dab86957 - bam.sys
1b626a41 b2ceda91 - vmbkmclr.sys
e479db7a 2523dc53 - volume.sys
56ccde4b 1c2a4d9c - ndistapi.sys
4ec44075 708d416e - cng.sys
a2374247 5785b298 - mrxsmbs20.sys
893eb371 bad8b569 - emvscard.sys
ec83b642 a3e02593 - usbccgp.sys
d499277c 16442865 - Msfs.SYS
47ed294d c4cd5b57 - iorate.sys
8a2bcaa8 bbc5cb81 - ndis.sys
ed7ecd79 2e28ce52 - srvnet.sys
c5864ea3 0630408c - ndiscap.sys
38d94175 6984435d - gt680x.sys

Dll Base DateStmp - Name
20d1a2ae 518aa497 - bowser.sys
8335a571 b4dea659 - hvservice.sys
6a4b26aa 9ce62793 - drmk.sys
cd90287b 0e492a54 - msisadrv.sys
b59789a5 e7418b9e - kd.dll
280a8c77 5aa48d60 - vmproxyhnic.sys
d675be69 182eb152 - hdaudbus.sys
ce8b30a3 0036328b - lxc0re.sys
32d03364 6389345d - volsnap.sys
19d7a4ae 4a91a587 - ACPI.sys
7c4a9770 ade49858 - sgrmagent.sys
644217a9 96eb1983 - kbdcass.sys
c7951a7b 08401b54 - vmci.sys
aeac8ba5 d1568c8d - mup.sys
12018e76 44aa8050 - dxgmm2.sys

Address dword dump Build [13811] - Name
d08ab168 86d831b9 b8822293 e93b238b 2bd62564 d14394b5 - tcpip.sys
d9606756 76419860 2c9d18b1 5d4719a9 8ee20a82 b19b0c6a - acpi.sys
4d7b4d74 7e264e6c 3583aebd 663ca096 98d7a170 c981a368 - wmlib.sys
5661d472 1cbe53c3 4d6855ab 70125684 a1bc577c 6729c7cd - fltmgr.sys

Restart and set the recovery options in the system control panel
or the /CRASHDEBUG system start option.
```


If you click on the „Advanced NT code options“ button, you’ll see the following window:

Version 2.x

Windows NT advanced options - Windows NT 4.0/3.x (Text mode, Standard)

ntfs.sys - RRRRRRRR, RRRRRRRR

Code 1 R R R R R R R R File: ntfs.sys Choose

Random (R) Set Set Set Set Set Set Set Set 1 2

Null (0) Set Set Set Set Set Set Set Set

Fixed (0-F)

Random code Null code

OK

Version 3.0

Windows NT code editor (right click to de-select)

Filename	Codes
spaceport.sys	RRRRRRRR;RRRRRR
vmx86.sys	RRRRRRRR;RRRRRR
kd.dll	RRRRRRRR;RRRRRR
vid.sys	RRRRRRRR;RRRRRR
cmimcext.sys	RRRRRRRR;RRRRRR
swenum.sys	RRRRRRRR;RRRRRR
gt680x.sys	RRRRRRRR;RRRRRR
vboxusbmon.sys	RRRRRRRR;RRRRRR
fwpkclnt.sys	RRRRRRRR;RRRRRR
cimfs.sys	RRRRRRRR;RRRRRR
ndis.sys	RRRRRRRR;RRRRRR
vdrvroot.sys	RRRRRRRR;RRRRRR
dxgkrnl.sys	RRRRRRRR;RRRRRR
swenum.sys	RRRRRRRR;RRRRRR
windowstrustedrt.sys	RRRRRRRR;RRRRRR
storgosflt.sys	RRRRRRRR;RRRRRR
basicdisplay.sys	RRRRRRRR;RRRRRR
cldfit.sys	RRRRRRRR;RRRRRR
usbd.sys	RRRRRRRR;RRRRRR
kd.dll	RRRRRRRR;RRRRRR
wdf01000.sys	RRRRRRRR;RRRRRR
nvlddmkm.sys	RRRRRRRR;RRRRRR
cea.sys	RRRRRRRR;RRRRRR
cmimcext.sys	RRRRRRRR;RRRRRR

Filename spaceport.sys ..

Codes F GEN R 0

RRRRRRRR
Code 1

RRRRRRRR
Code 2

ADD FILE \W CODES ADD CODE DELETE CODE DELETE ENTRY

For version 2.x

This works in a similar to the memory address code editor. You can specify error codes using the table and select sections using numbered buttons (a button representing current section is grayed out).

Random code and null code buttons set the whole block to random numbers and letters or all zeroes respectively. But you can also change the filename here. You can either rename whatever is inputted or click on the „Choose“ button to choose a file from a list. To select, which file you’re editing, click on the dropdown list. From there, choose which file you want to edit.

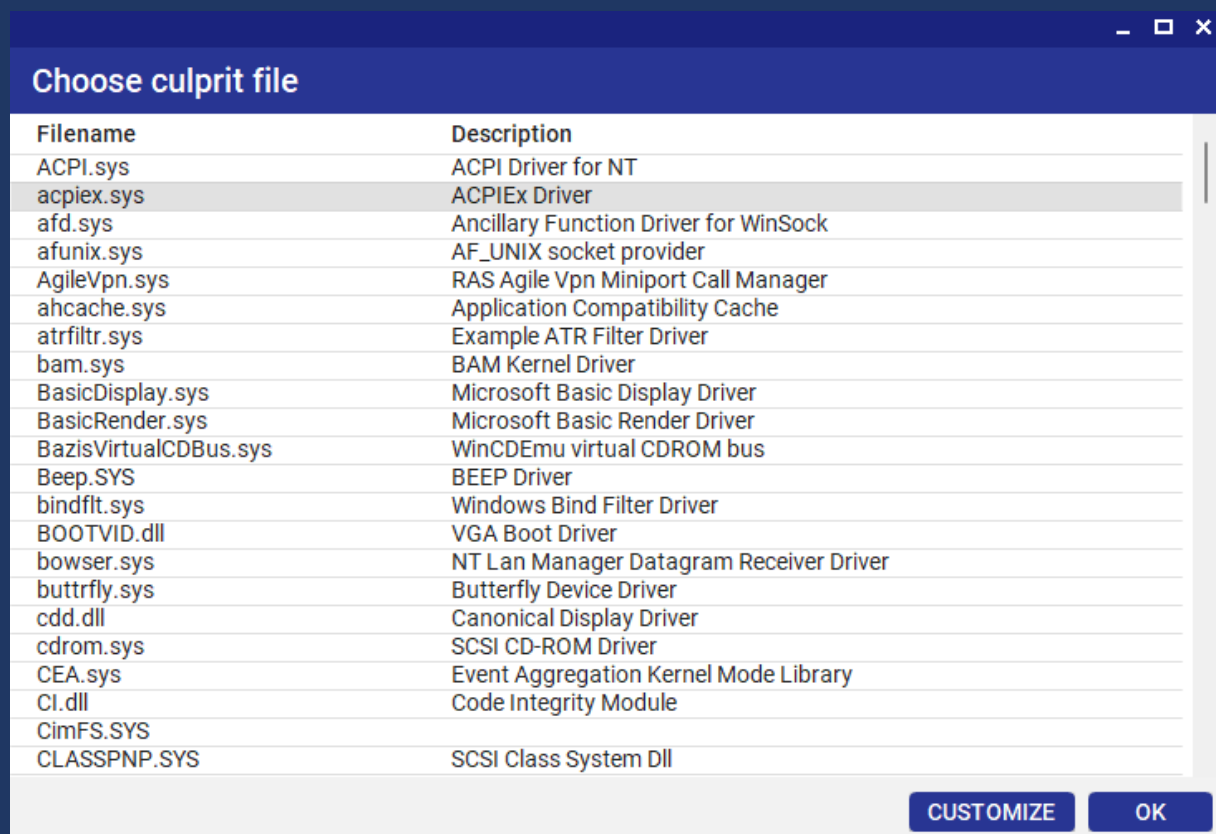
Click OK to exit this window.

For version 3.0

A list of files with error codes is displayed on the left part of the window, while anything you may do with the file is displayed on the right side. Clicking on any of these files will allow you to see list of error code templates and the current filename.

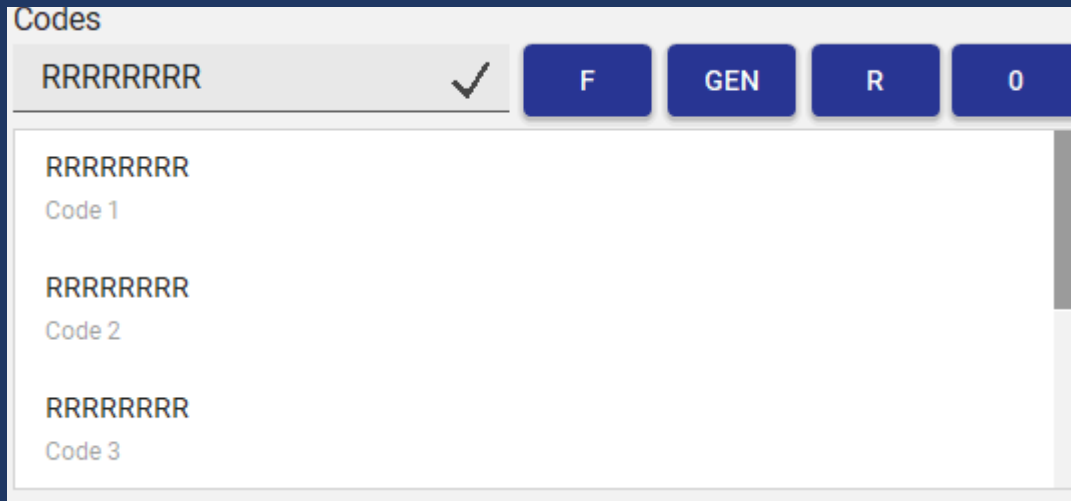
You may also select multiple files to make bulk edits. If no file is selected, you are creating a new file, otherwise you are editing an existing file. You can deselect a file any time by right clicking on the list.

Filename may be entered manually or selected from a list by clicking the „..“ button. Doing so will open a window like this:



You can customize this list by pressing the customize button or just select a file by selecting it and clicking on OK. Pressing the X button will cancel the operation.

After selecting a file, code list may look something like this:



Here you see a similar validated text box, which is found in the error code editor, but this time, the entered text must be 8 characters long. If you have selected any code from the list below, you are editing that value, otherwise you are creating a new one. Once again, you can right click to deselect a value.

You can perform bulk actions by using the buttons next to the text box. They do the following:

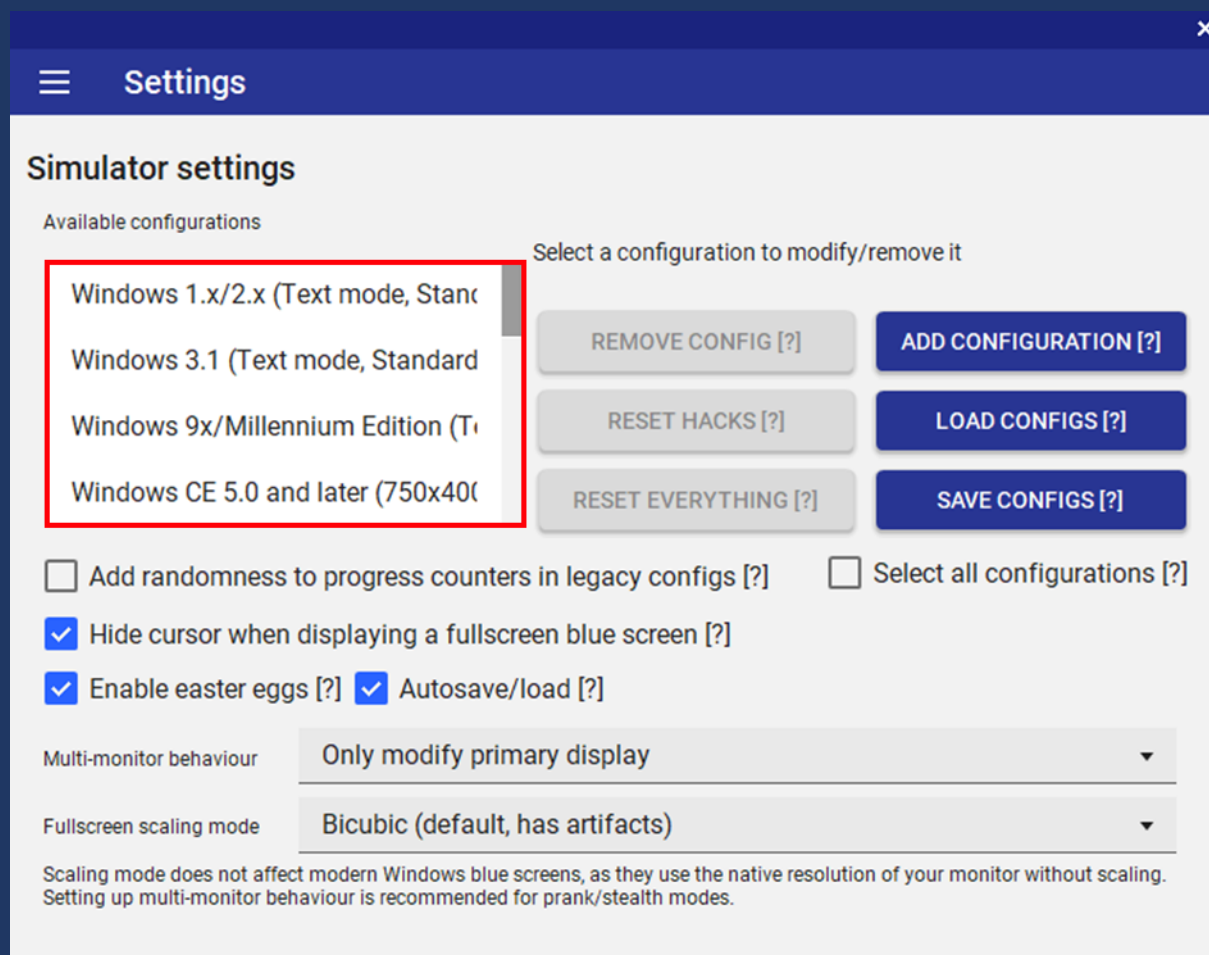
- F (Fixed) – sets the entered value for all codes on selected file(s)
- GEN (Generate) – pre-generates all R characters to static values for all codes on selected file(s)
- R (Random) – replaces all characters with R character for all codes on selected file(s)
- 0 – replaces all characters with 0 for all codes on selected file(s)

Following action buttons are found below the list of codes.

- Add file \w codes – Adds the specified filename along with specified codes to the list of NT error codes
- Add code – Adds an error code to the file (NOTE: This option is dangerous and shouldn't be used unless you know what you're doing)
- Delete code – Deletes a code associated with selected file
- Delete entry – Deletes the selected entry on the left side (shortcut key: Delete)

3.5. Adding or removing presets

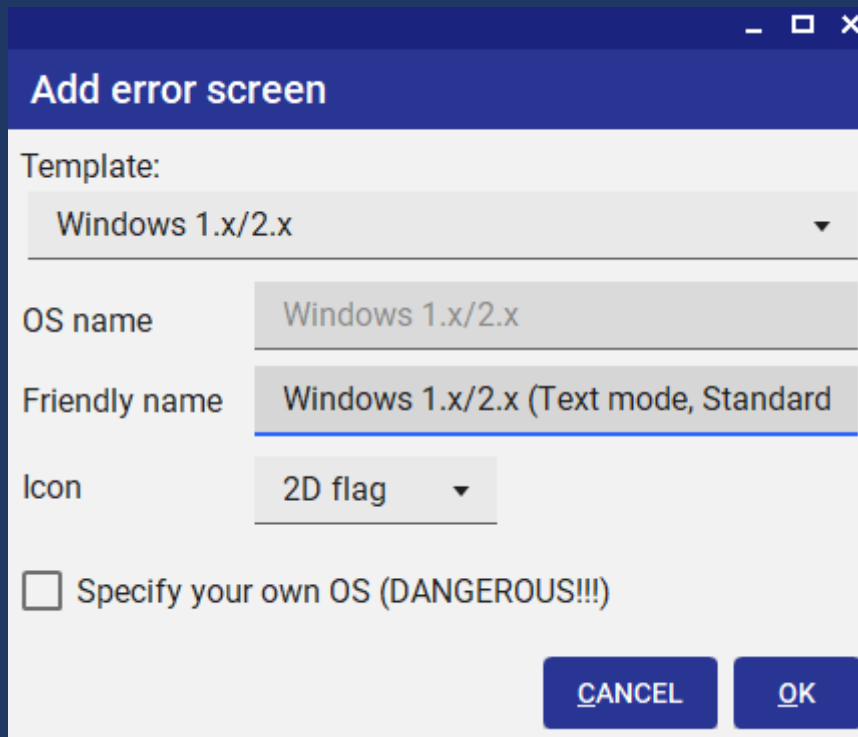
You can add your own presets and remove existing ones! To add or remove presets, click on the „Settings“ button. For version 3.0, you can find this under the hamburger menu. Then navigate to the „Simulator settings“ tab. You should see the following:



First off, to remove a preset, click on a preset you see listed on a list box that you want to remove (marked with a red box). Then the „Remove config(uration)“ button should become active. Once the button is active, you can click on it. You’ll be warned that all settings inside the preset will be lost. Click „Yes“ to proceed. After a preset is removed, it will no longer appear on the list and will not be listed in the main interface.

If you want to reset settings on a preset instead of deleting it, you can use either the „Reset hacks“ button or „Reset everything“ button. The „Reset hacks“ button lets you reset any setting that you set after clicking the „Additional options“ button. „Reset everything“ will recreate the entire preset with the same OS, name, and icon, which will result in all settings being reset.

To add a preset, click on the „Add configuration“ button. This will open up a window that looks like this:

The image shows a dialog box titled "Add error screen" with a dark blue header bar containing standard window controls (minimize, maximize, close). The main area is white and contains several configuration options. At the top is a "Template:" label followed by a dropdown menu currently showing "Windows 1.x/2.x". Below this are three rows of labels and input fields: "OS name" with a text box containing "Windows 1.x/2.x", "Friendly name" with a text box containing "Windows 1.x/2.x (Text mode, Standard", and "Icon" with a dropdown menu showing "2D flag". At the bottom left is a checkbox labeled "Specify your own OS (DANGEROUS!!!)". At the bottom right are two blue buttons labeled "CANCEL" and "OK".

As you should remember from Chapter 3.1, each configuration has an OS template. This template can be selected from the first dropdown list. This template is used to add initial OS-specific configuration to the error screen.

We'll skip over the „OS name“ for now and focus on the „Friendly name“. This is what will appear on the list of presets and on the main interface. Basically, this is a name you want to give to this preset.

The icon is what appears, when simulating a blue screen in both the taskbar and on the window title bar if windowed mode is enabled.

Coming back to the OS name, by default you are not allowed to change it. In order to change it, you must tick a check box labeled „Specify your own OS (DANGEROUS!!!)“. You'll be warned that this feature may lead to an unusable preset. Click „Yes“ to continue anyway.

In most cases, the OS name should be the same as the template name, but you can change it to another template name. This will allow you to create „hybrid“ error screens. Basically, the error screen will be setup with the configuration from a template you selected, but after doing so, the OS name will be changed, which will give you the ability to access options from that operating system and also attempt to simulate the error screen with another simulator. In most cases, this will result in an error, but sometimes you can use this to access forbidden settings, such as the insider preview tick box for

the Windows 11 error screen. Note that pressing „Reset everything“ in the settings menu will remove any hybrid error screens and instead use configurations from the „OS name“ specified.

3.6. Loading and saving all presets

In case you want to keep configurations, even if you close the program, save and load presets. Navigate to the „Simulator settings“ menu, as mentioned in the previous chapter.

After doing so, you can click on the „Save configurations“ button. This will allow you to save ALL presets into a file. Browsing and specifying a name, click OK to save the file.

If you want to load a configuration file, simply click „Load configurations“ on the same menu. This will open a file browser dialog. Select a valid BSSP 1.x, 2.x or 3.x configuration file. Once you do, click OK to open the file. All presets should pop up and all settings (apart from global settings and prank mode settings) will be restored.

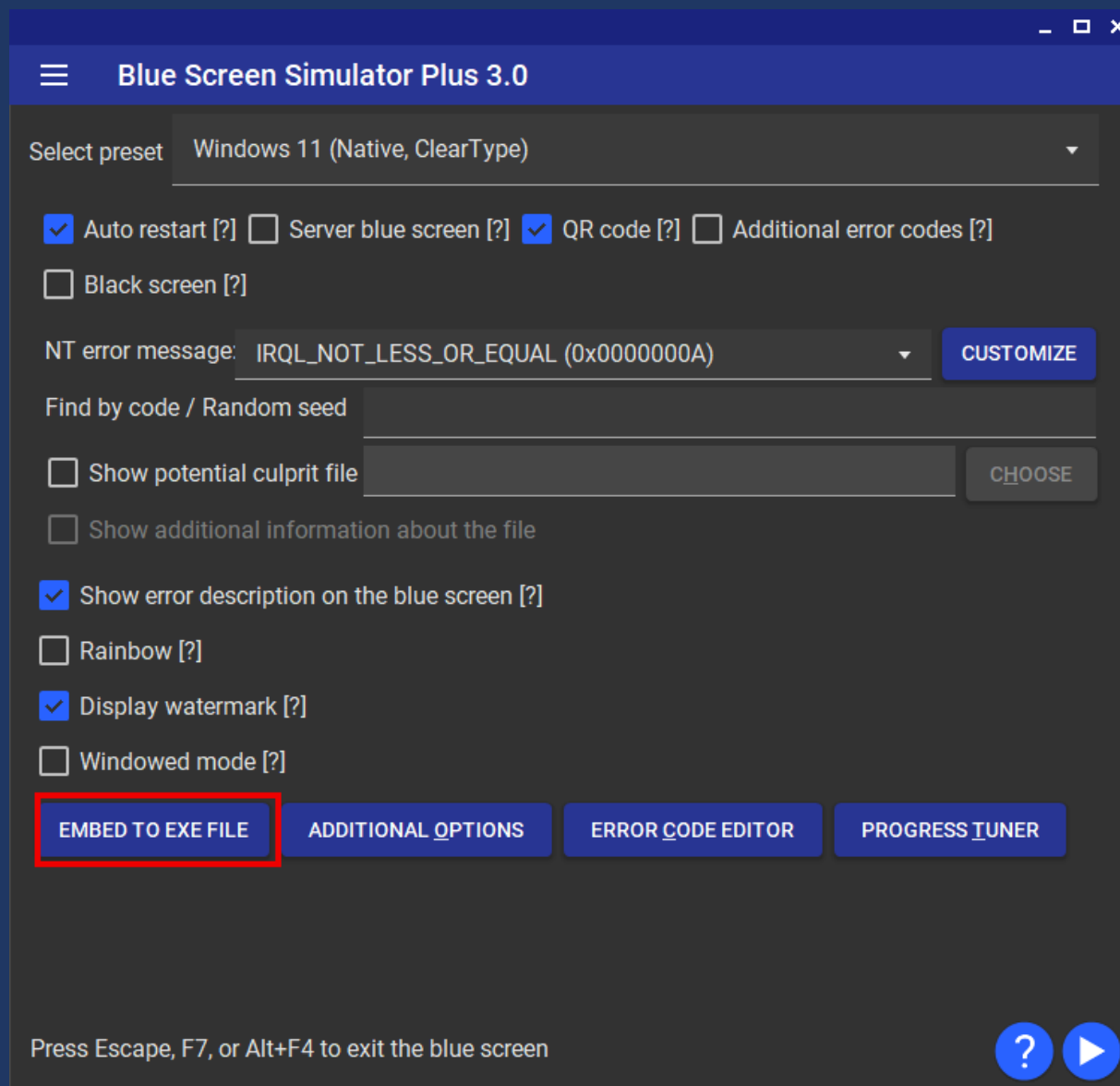
WARNING: Loading a configuration file will ERASE ALL UNSAVED PRESETS and replace them with ones found in the file.

Note: If you load a 1.x configuration file, Windows 11 and 1.x/2.x presets won't be listed, because 1.x versions didn't support these types of blue screens.

Note: Version 3.0 uses the more standard JSON format, which is not compatible with version 2.0.

3.7. Embedding to EXE file (3.0+ only)

In version 3.0, you can open any configuration template and click the „Embed to exe file“ to create an exe file, which you can run, that automatically simulates a blue screen with specified configurations.



Before creating the EXE, please keep the following in mind:

1. The program will freeze for a few moments after you confirm you want to create the exe file
2. A temporary copy of the blue screen simulator plus executable will be created
3. The executable name musn't be bssp, blue screen simulator plus, ultimatebluescreensimulator or blue.screen.simulator.plus, as these names are reserved for the regular blue screen simulator plus program

4. The EXE file, which contains the simulator will still perform Verifile checks, so if you've never ran Blue Screen Simulator Plus on the computer before, it'll still display the message that can be found in chapter 1
5. ALL settings of the current configuration will be carried over, including watermark and windowed mode, so verify that the error screen looks exactly like you want before creating the executable
6. The file size of the created executable will be slightly bigger than blue screen simulator plus itself, because it'll have to contain the full program
7. Command line arguments will no longer work with the created executable
8. Blue screen settings are embedded at the end of the executable as minified JSON plain text, which can be seen when viewing the executable with a hex editor. This does not affect the program, because it is „out of bounds“ from the executable, i.e. in a region that'll never be read

```

009931E0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
009931F0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
00993200 42 33 65 72 00 7B 22 42 61 63 6B 67 72 6F 75 6E B3er.{"Backgroun
00993210 64 22 3A 7B 22 52 22 3A 32 32 2C 22 47 22 3A 36 d":{"R":22,"G":6
00993220 30 2C 22 42 22 3A 31 34 31 7D 2C 22 46 6F 72 65 0,"B":141},"Fore
00993230 67 72 6F 75 6E 64 22 3A 7B 22 52 22 3A 32 35 35 ground":{"R":255
00993240 2C 22 47 22 3A 32 35 35 2C 22 42 22 3A 32 35 35 ,"G":255,"B":255
00993250 7D 2C 22 48 69 67 68 6C 69 67 68 74 5F 42 47 22 },{"Highlight_BG"
00993260 3A 7B 22 52 22 3A 32 35 35 2C 22 47 22 3A 32 35 :{"R":255,"G":25
00993270 35 2C 22 42 22 3A 32 35 35 7D 2C 22 48 69 67 68 5,"B":255},"High
00993280 6C 69 67 68 74 5F 46 47 22 3A 7B 22 52 22 3A 30 light_FG":{"R":0
00993290 2C 22 47 22 3A 30 2C 22 42 22 3A 30 7D 2C 22 46 ,"G":0,"B":0},"F
009932A0 6F 6E 74 22 3A 7B 22 46 6F 6E 74 46 61 6D 69 6C ont":{"FontFamili
009932B0 79 22 3A 22 53 65 67 6F 65 20 55 49 20 53 65 6D y":"Segoe UI Sem
009932C0 69 6C 69 67 68 74 22 2C 22 42 6F 6C 64 22 3A 66 ilit","Bold":f
009932D0 61 6C 73 65 2C 22 49 74 61 6C 69 63 22 3A 66 61 alse,"Italic":fa
009932E0 6C 73 65 2C 22 53 74 72 69 6B 65 6F 75 74 22 3A lse,"Strikeout":
009932F0 66 61 6C 73 65 2C 22 55 6E 64 65 72 6C 69 6E 65 false,"Underline
00993300 22 3A 66 61 6C 73 65 2C 22 53 69 7A 65 22 3A 31 ":false,"Size":1
00993310 38 2E 33 39 39 39 39 39 36 7D 2C 22 65 63 6F 64 8.3999996},"ecod
00993320 65 73 22 3A 5B 22 52 52 52 52 52 52 52 52 52 es":["RRRRRRRRRRR
00993330 52 52 22 2C 22 52 52 52 52 52 52 52 52 52 52 RR","RRRRRRRRRRR
00993340 52 52 52 52 52 22 2C 22 52 52 52 52 52 52 52 RRRRR","RRRRRRRRR
00993350 52 52 52 52 52 52 52 52 22 2C 22 52 52 52 52 RRRRRRRR","RRRRRR
00993360 52 52 52 52 52 52 52 52 52 52 52 22 5D 2C 22 6F RRRRRRRRRRRR"],"o
00993370 73 22 3A 22 57 69 6E 64 6F 77 73 20 31 31 22 2C s":"Windows 11",
00993380 22 69 63 6F 6E 22 3A 22 32 44 20 77 69 6E 64 6F "icon":"2D windo
00993390 77 22 2C 22 74 69 74 6C 65 73 22 3A 7B 7D 2C 22 w","titles":{},"
009933A0 74 65 78 74 73 22 3A 7B 22 49 6E 66 6F 72 6D 61 texts":{"Informa
009933B0 74 69 6F 6E 20 74 65 78 74 20 77 69 74 68 20 64 tion text with d
009933C0 75 6D 70 22 3A 22 59 6F 75 72 20 64 65 76 69 63 ump":"Your devic
009933D0 65 20 72 61 6E 20 69 6E 74 6F 20 61 20 70 72 6F e ran into a pro

```

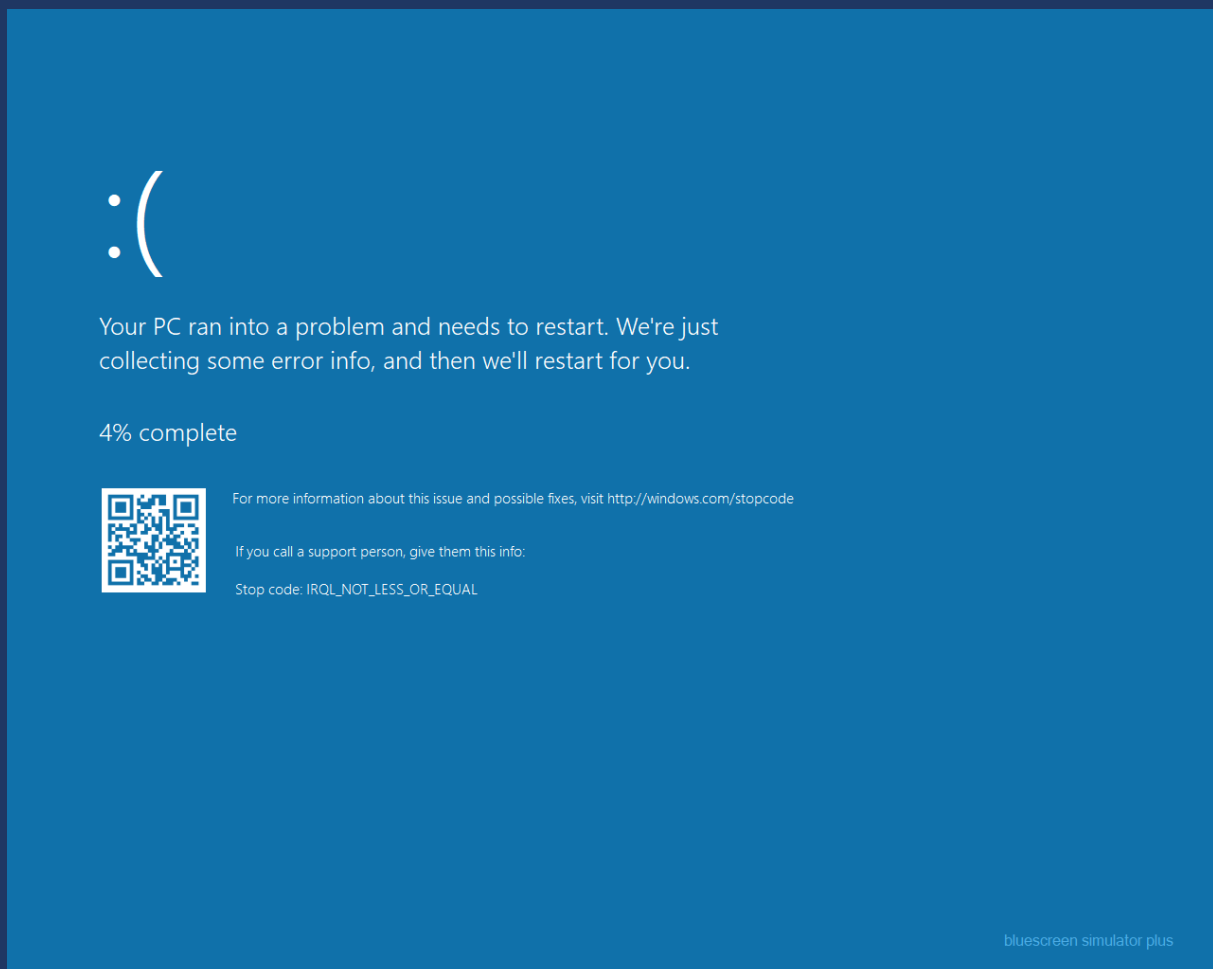

9. Removing this footer data with a hex editor will cause it to display an error message and immediately quit. To restore full functionality, simply rename the executable back to one of the following:
- BSSP.EXE
 - Blue Screen Simulator Plus.exe (recommended)
 - UltimateBlueScreenSimulator.exe
 - Blue.Screen.Simulator.Plus.exe

4. simulating error screens

4.1. Displaying a specific blue screen

To display an error screen with current settings, click the „Simulate“ or „▶“ button. This will display the error screen, with settings pulled from the currently selected preset. A window saying „Generating blue screen“ may briefly appear before the error screen is displayed. To exit the error screen, press Alt+F4 on your keyboard. In windowed mode, you can also close the window.

Here's an example of a Windows 10 blue screen with default settings:



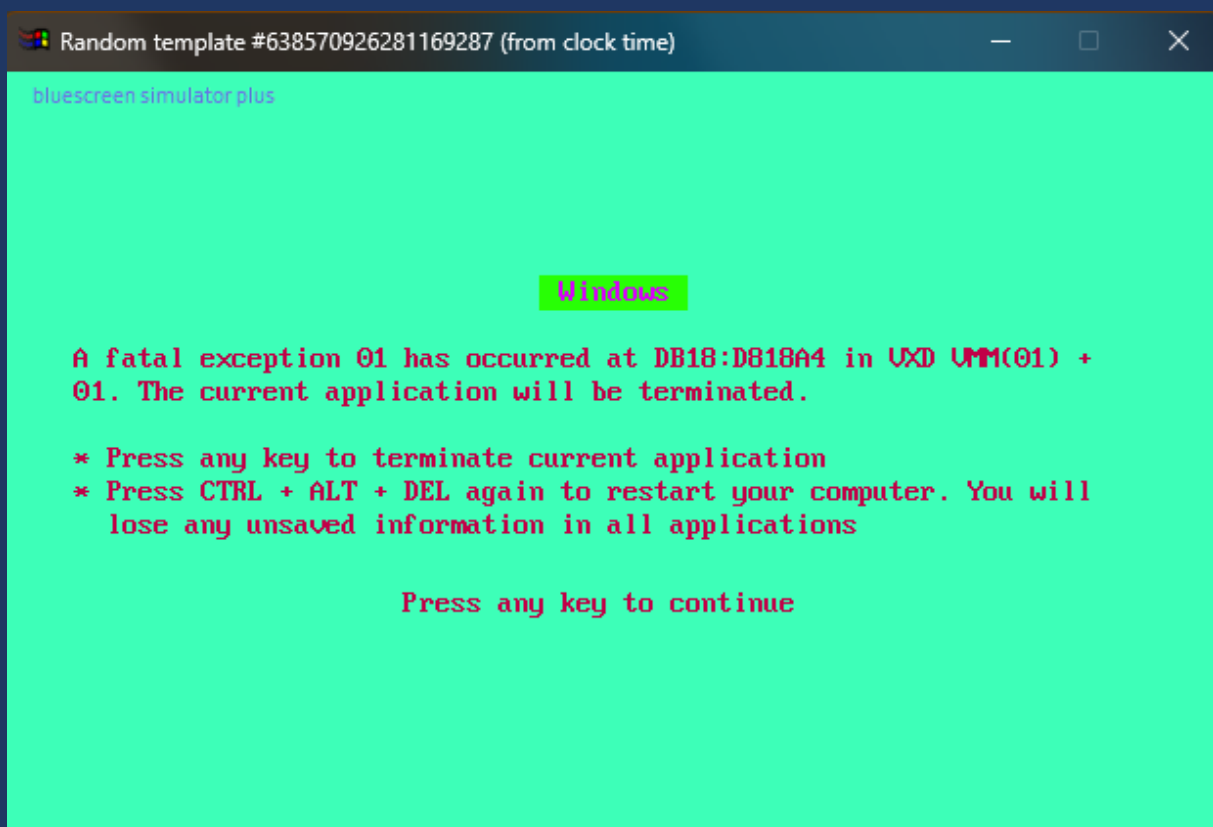
4.2. Displaying a random blue screen

If you don't know which error to trigger specifically, you can use the randomize feature. Click on the „I'm feeling unlucky“ or „?“ button, and a random preset will be selected and settings within them will be randomized. Note that in versions 1.x and 2.x this will modify random values and some unsaved configurations will be lost. After the randomization process is complete, the blue screen will be displayed.

Note: In version 3.0, you can also specify a seed to use for random generation, by entering a text value to the „Find by code“ text field. Any specific seed will always result in the same blue screen being generated. If you don't enter any text, your computer's clock time will be used to generate the seed.

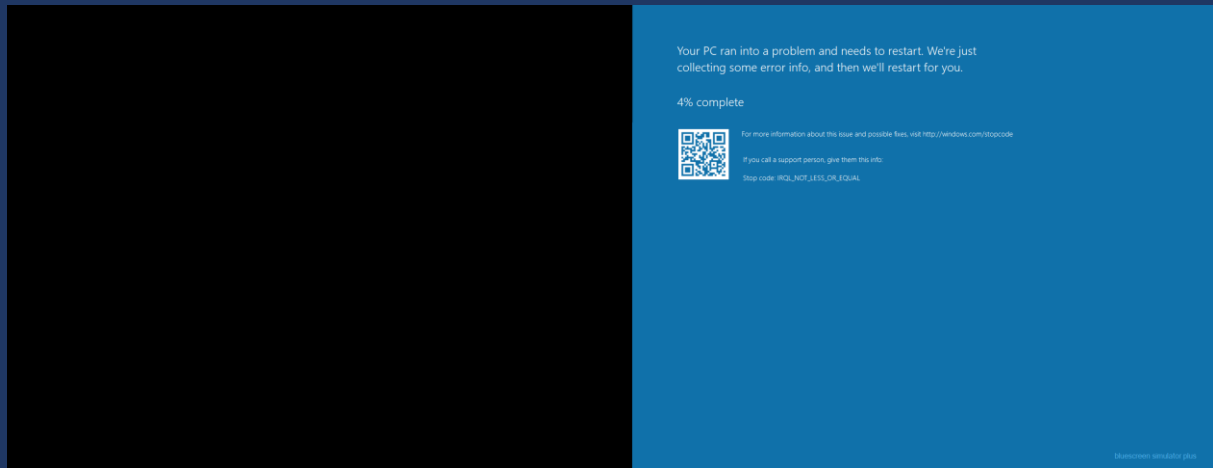
WARNING: In version 2.0, there's a bug, where if you generate a random blue screen, the error message text for Windows 3.1x CTRL+ALT+DEL screen will be lost (even if you save configuration file and reload it, the bug carries over), so we advise you to avoid using that option in version 2.0.

Here's an example of a randomized blue screen:

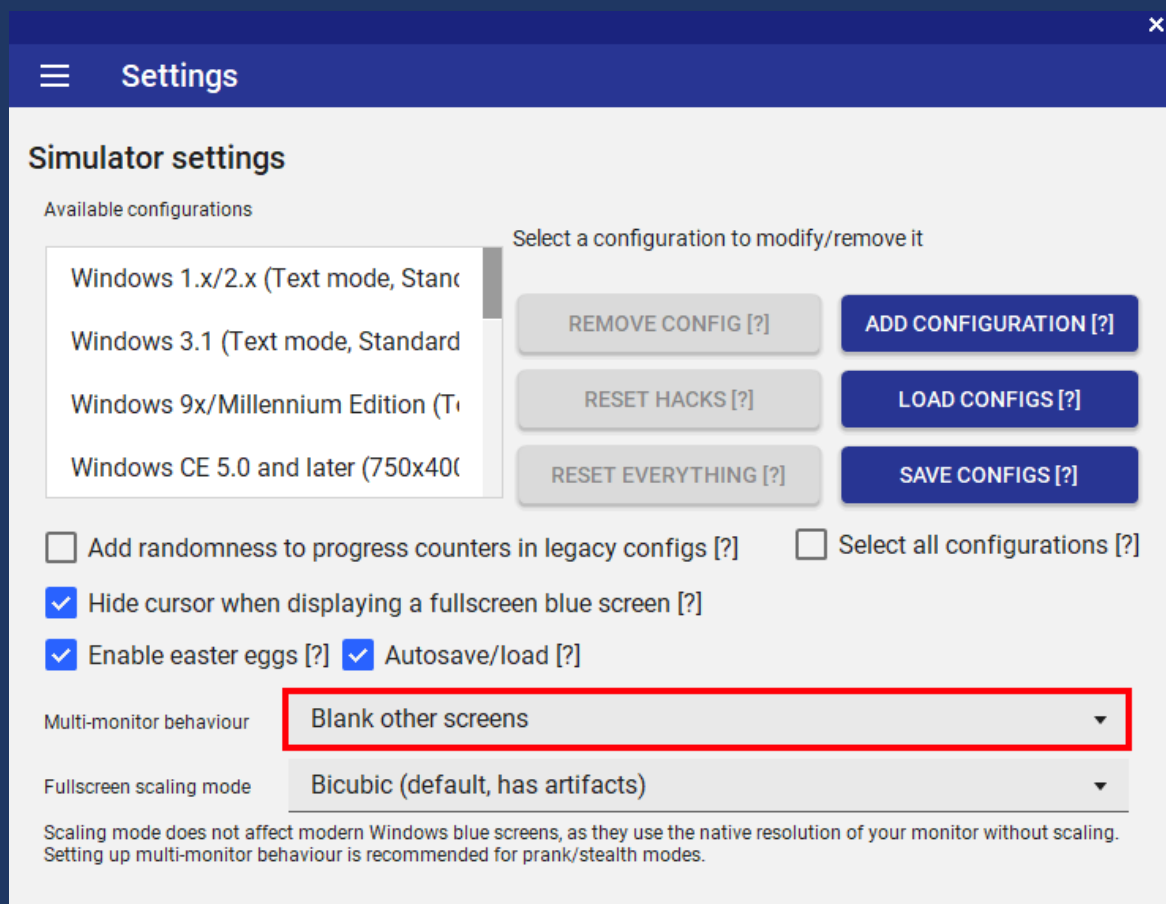


4.3. Multi-display behaviour

Blue screen simulator plus 2.0 also support multiple screens. By default, if multiple screens are connected, the primary screen will display the error screen, while other screens are blanked out. Here's how it might look like on a multi-display setup:



You can also change this behaviour, if you click on the settings button (hidden under the hamburger menu in version 3.0) and navigate to the simulator settings tab. Then click on the following dropdown menu:



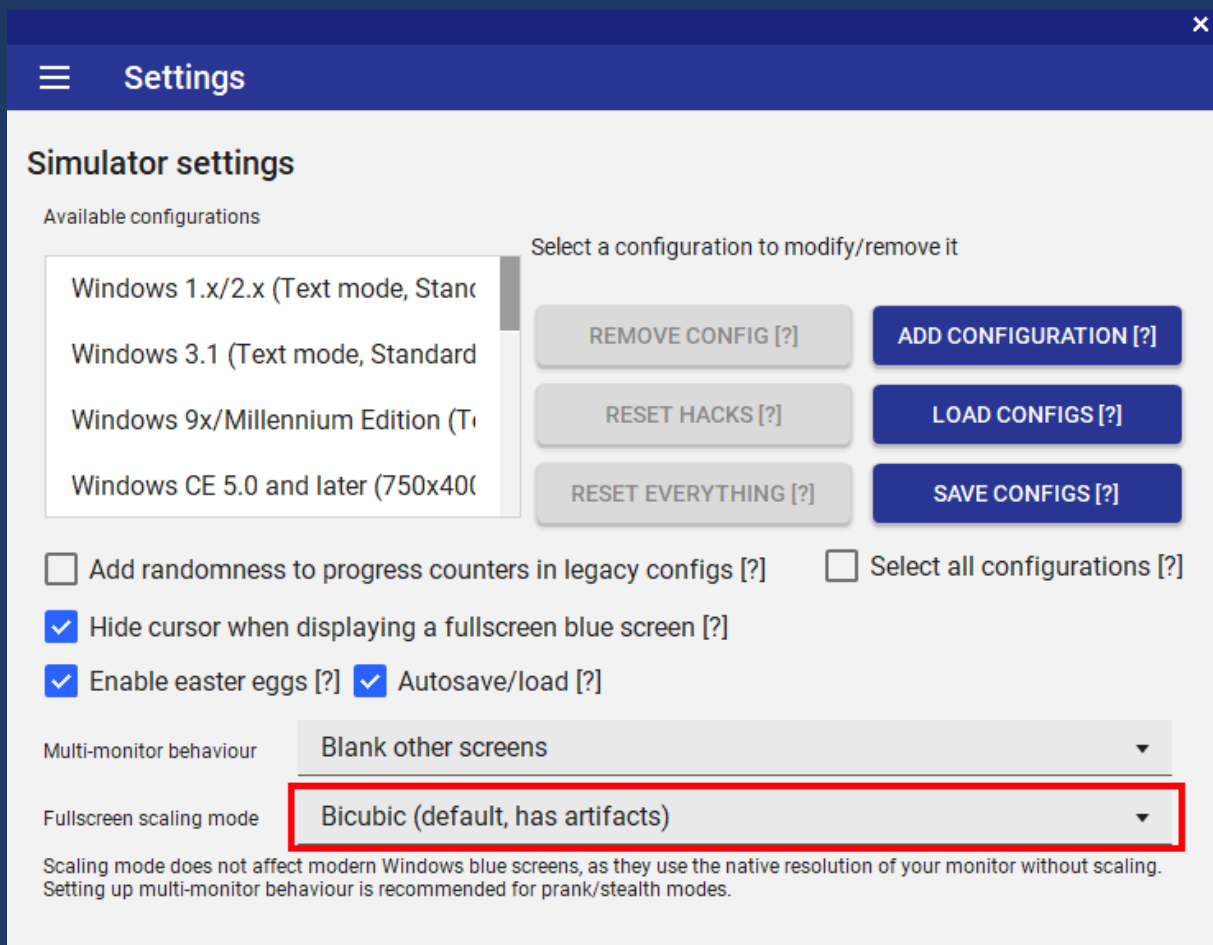
You can choose one of the following options:

- Blank other screens – Primary screen will display the error screen, secondary screens will display a black screen
- Only modify primary display – Primary screen will display the error screen, secondary screens will not be affected
- Mirror primary screen – Primary screen will display the error screen, secondary screens will stretch the image displayed on the primary screen
- Freeze secondary screens – Primary screen will display the error screen, secondary screens will display the same thing they were displaying right before you simulated the error and will keep displaying the same image until you quit the error screen

4.4. Upscaling options

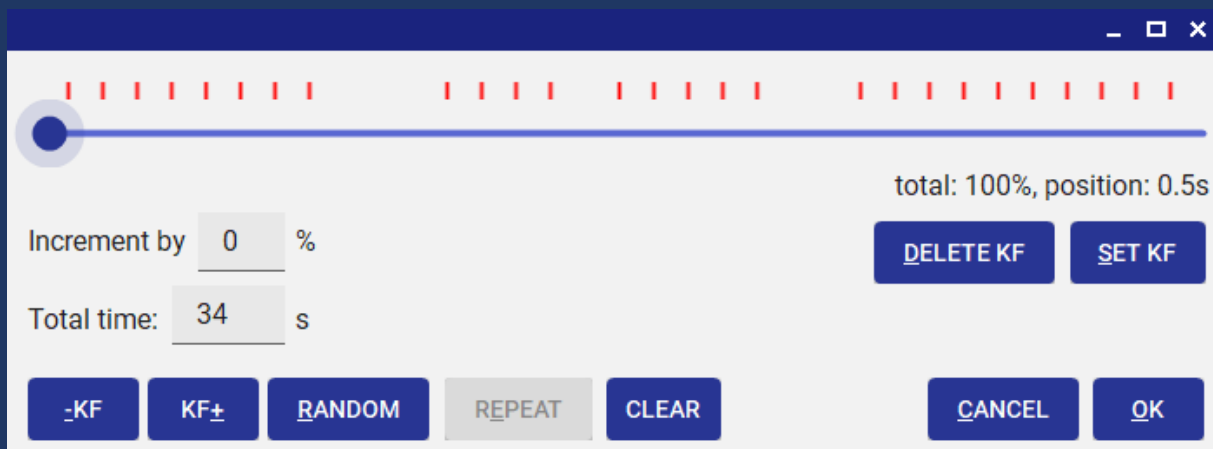
Since blue screens aren't always displayed at native resolution, they sometimes need to be upscaled to get displayed in fullscreen mode. By default, BSSP 2.0+ uses Bicubic as the upscaling algorithm. You may want to change this though, depending on the error screen you are generating. Scaling is also used when mirroring primary screen with a multi-display setup.

To change scaling mode, go to Settings and navigate to the „Simulator settings“ tab. Then modify the following dropdown menu:



Simulate an older blue screen in fullscreen mode how it looks.

5. Progress tuner (2.1+ only)



Progress tuner is a powerful tool that allows you to change how the progress counter gets updated. If you've ever seen a real Windows 8+ blue screen, you know that the percentage doesn't go up linearly, it can sometimes go slow on certain percentages and then jump to 100% in some cases. The progress tuner allows you to replicate this behaviour and set exactly how the incrementing should work.

Each increment is referred as a keyframe. Each keyframe says how much the counter should be incremented by. To jump between keyframes, use the "-KF" and "+KF" buttons. You can use the „Clear“ button to remove all keyframes. Keyframes are displayed above the trackbar as red markers (these will reposition correctly, even if you resize the window). These markers combined with the trackbar are referred in this manual as the timeline. You can scroll or drag the track bar to move in the timeline. If you move along the timeline, the position label should update accordingly.

The total amount of time is displayed on the textbox labeled as „Total time“. You can change this value to specify how long the blue screen gets displayed.

In addition to the position, there's also a number that shows how much in total the percentages add up to. If you want a realistic error screen, you want this value to be 100%, but if you want to mess with someone, you can also make it something different or even go into negative percentages. By default, the numbers go up randomly at fixed intervals and shortly after reaching 100%, the screen is closed.

Note: If you open a configuration file made with an older version of Blue Screen Simulator Plus, the counter will go up linearly without any randomness. If you open progress tuner, you will not see any keyframes. If you want this randomness applied to your old configuration files by default, you need to enable the „Add randomness to progress counters in legacy configurations“ checkbox in simulator settings.

5.1 Adding a keyframe

To add a keyframe, do the following:

1. Move to a desired position in the timeline
2. Set a desired increment value. If you don't have a number in mind, just press the „Random“ button, and a number from 1-9 will be randomly chosen
3. Click on „Set KF“ button
4. If done correctly, a red line should appear at the current position on the timeline

But lets say that the first step gets too annoying. How can you add multiple increments with the same spacing. When you launch the Progress tuner dialog for the first time, you may notice that a button with the label „Repeat“ is grayed out. This button is used for this exact purpose.

To add multiple increments with same spacing to the following:

1. Add the first keyframe with a desired value manually
2. Now the repeat button should become clickable. Set a different or same increment value.
3. Click on „Repeat“
4. Repeat steps 2-3 until you have the desired amount of keyframes

5.2 Deleting a keyframe

In order to delete a keyframe, you must to do the following:

1. Use the KF+ and -KF buttons to cycle between different keyframes
2. Press the „Delete KF“ button to delete a keyframe

5.3 Adding randomness to legacy configurations

If you load a version 2.0 config file in BSSP 2.1, by default the progress counter will move linearly. If you want to have the progress counter move randomly, please check the following checkbox: Settings > Simulator settings > Add randomness to progress counters in legacy configurations [?]

6. Prank mode

Since the aim of this program is to simulate blue screens as accurately as possible, this program can also use „Prank mode“, which lets you prank the user with an error screen. To access prank mode, click on „Advanced“ and select „Prank mode“ from the drop down menu or for version 3.0, simply choose it from the hamburger menu. You should see the following screen:

Prank mode

Bluescreen options

☒ Use a bluescreen type that matches this system, but match other settings
☐ Match all current settings

Trigger options ☒ Timer ☐ Application ☐ USB device

Timer (format hrs:mins:secs)
00:05:00

Miscellaneous options

☒ Allow the user to close the blue screen using ALT+F4
☐ Show a message after the bluescreen is being closed **PREVIEW MESSAGE**

Enter a message here.

Message title Enter a title here

Message icon
☐ Error/Critical Stop ☒ Warning/Exclamation ☐ Question/Help ☐ Information ☐ No icon

Message buttons
☒ OK ☐ OK/Cancel ☐ Retry/Ignore/Abort ☐ Retry/Cancel ☐ Yes/No ☐ Yes/No/Cancel

☒ Re-open after ending prank mode

CANCEL **OK**

The first section, labelled „Bluescreen options“ allows you to select which kind of an error to display. The „Use a bluescreen type that matches this system, but match other settings“ will find a preset that uses the OS that your computer is currently running and will apply it. „Match all current settings“ option will match everything, including the preset selected.

The second section, labelled „Trigger options“ allows you to specify what will cause the error to pop up. The first option allows you to display the error screen at a time interval. The default setting is to display the error 5 minutes after activating the prank. The second option allows you to display the error screen when a process with a specified name is running. So, for example, if you set it to „notepad.exe“, when the user opens Notepad, the blue screen will pop up. Last, but not least, you can use a USB device to trigger the error. To set the device up, just (unplug and) plug it in. BSSP will automatically detect it. If it doesn't, try using a different device.

The final section, labelled „Miscellaneous options“ lets you change other aspects of the prank. „Allow the user to close the blue screen using ALT+F4“ lets the user close a blue screen if ALT+F4 is pressed on keyboard. This is not required for Windows 11/10/8/8.1/CE blue screens. For other error screens, this check box must be ticked. Finally, you can also display a message after closing the bluescreen. You can click „Preview message“ to see how it'll look like.

By default, the program interface will re-appear after ending the prank. If you do not want this behaviour to occur, uncheck the „Re-open after ending prank mode“ at the bottom left corner (version 2.1 and above only).

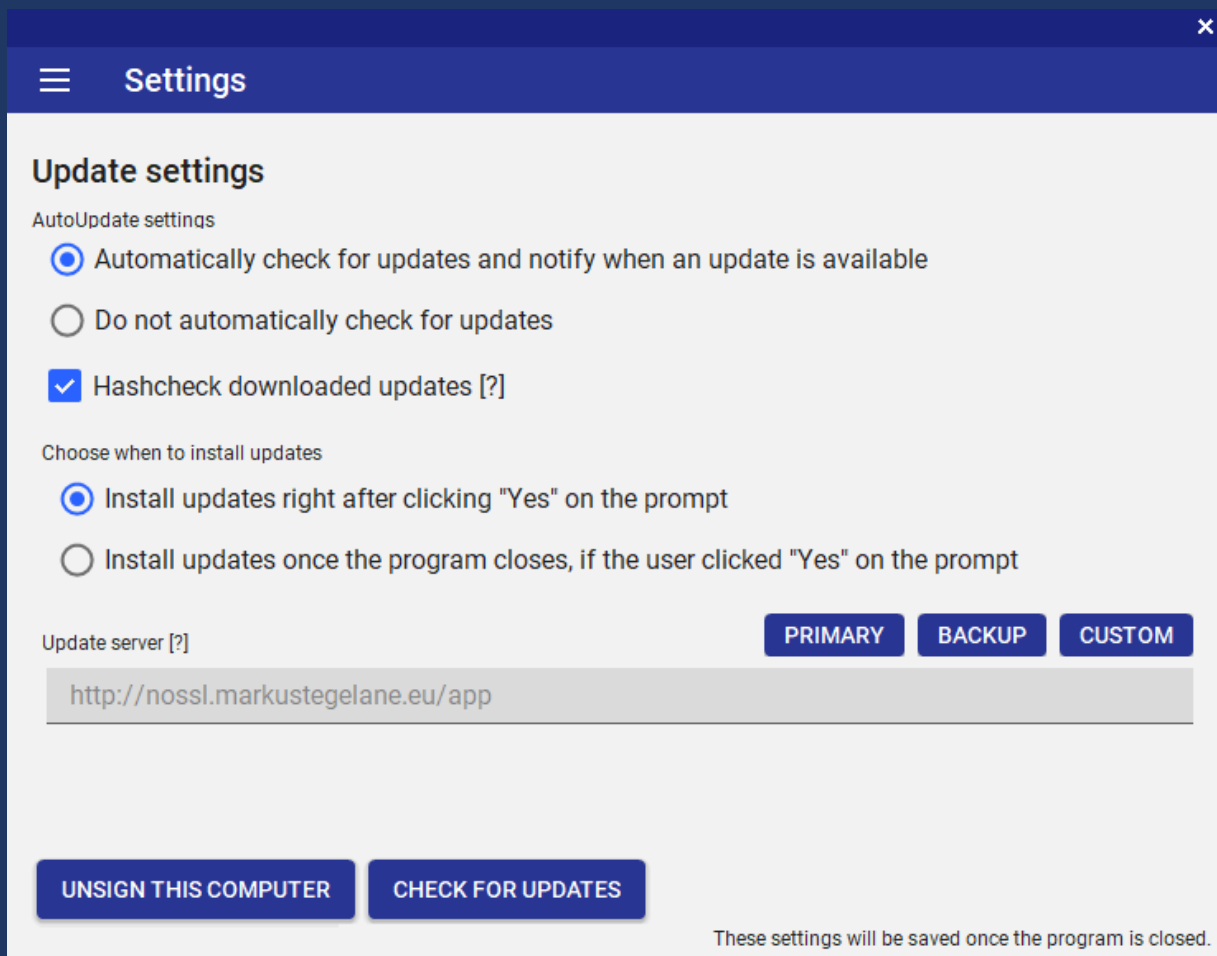
After setting everything up, you can either click „Cancel“ to avoid activating the prank or „OK“ to activate it. You'll be informed that the program will continue to run in the background and after the prank has finished, it'll be usable again. If the program gets stuck in stealth mode, use Task Manager to end it.

7. AutoUpdate

AutoUpdate allows users to upgrade to the latest version as soon as it is available.

7.1 Configuring AutoUpdate

To configure AutoUpdate, click on the Settings button (found under the hamburger menu in version 3.0 and above). You'll see the following screen:



The screenshot shows a settings window titled "Settings" with a hamburger menu icon on the left and a close button (X) on the right. The main content area is titled "Update settings" and contains the following options:

- AutoUpdate settings**
 - ☒ Automatically check for updates and notify when an update is available
 - ☐ Do not automatically check for updates
 - ☒ Hashcheck downloaded updates [?]
- Choose when to install updates**
 - ☒ Install updates right after clicking "Yes" on the prompt
 - ☐ Install updates once the program closes, if the user clicked "Yes" on the prompt
- Update server [?]**
 - Buttons: PRIMARY, BACKUP, CUSTOM
 - Text input field: `http://noss1.markustegelane.eu/app`

At the bottom, there are two buttons: "UNSIGN THIS COMPUTER" and "CHECK FOR UPDATES". A note at the bottom right states: "These settings will be saved once the program is closed."

First, you can decide if you want to check for updates or not. If you don't, you'll not be notified if there's an update available and instead you'll have to manually check for updates in the settings menu.

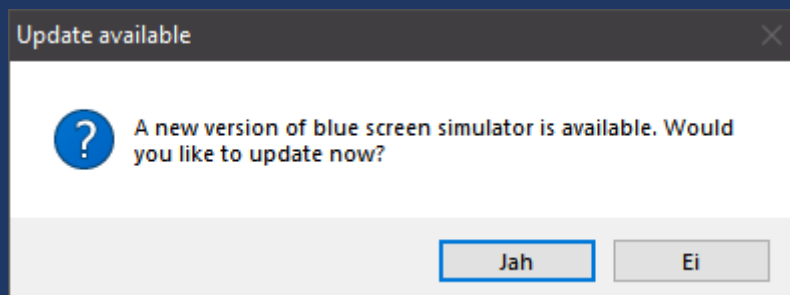
Hashchecking allows you to verify downloaded updates. If you uncheck this, you potentially risk installing a corrupted update, which is never a good thing. Only uncheck this if you know what you're doing.

Next, you can also choose when to install updates, in case you do get notified. By default, the update gets installed right after you click on „Yes“, but you can also choose to install updates after closing the program.

You can also choose, which update server to use. In most cases, the default server works fine, but you can also use the backup server, in case the primary one is down. If you want to or if none of the servers are up, you can also specify a custom server.

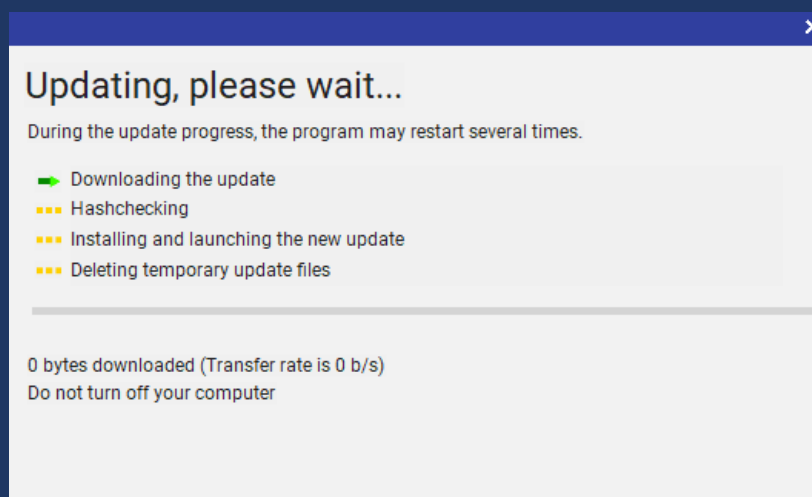
7.2. Installing the update

If AutoUpdate is enabled and there's an update available, you may see this dialog box a few seconds after starting the program:



You can click on „Yes“ to start the update process either immediately (by default) or after closing the program. You can also click „No“ to not update for now.

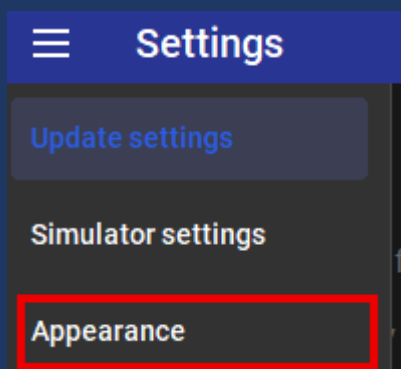
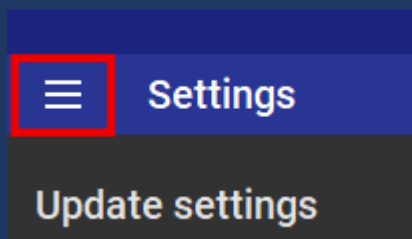
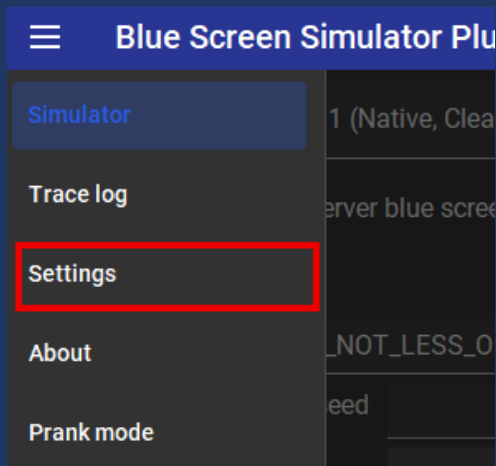
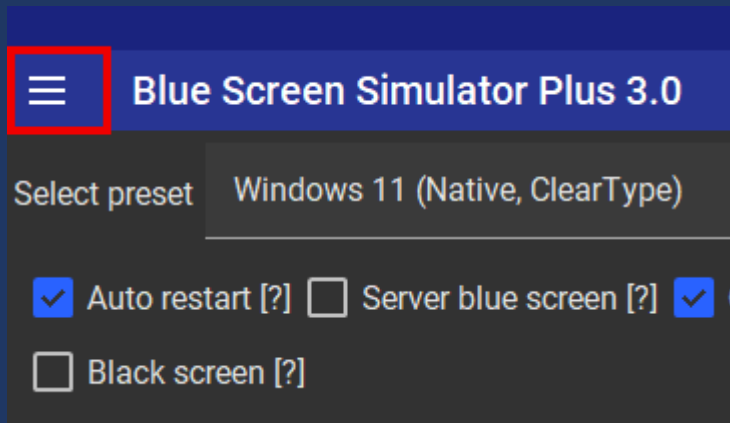
During the update, you'll see the following window:



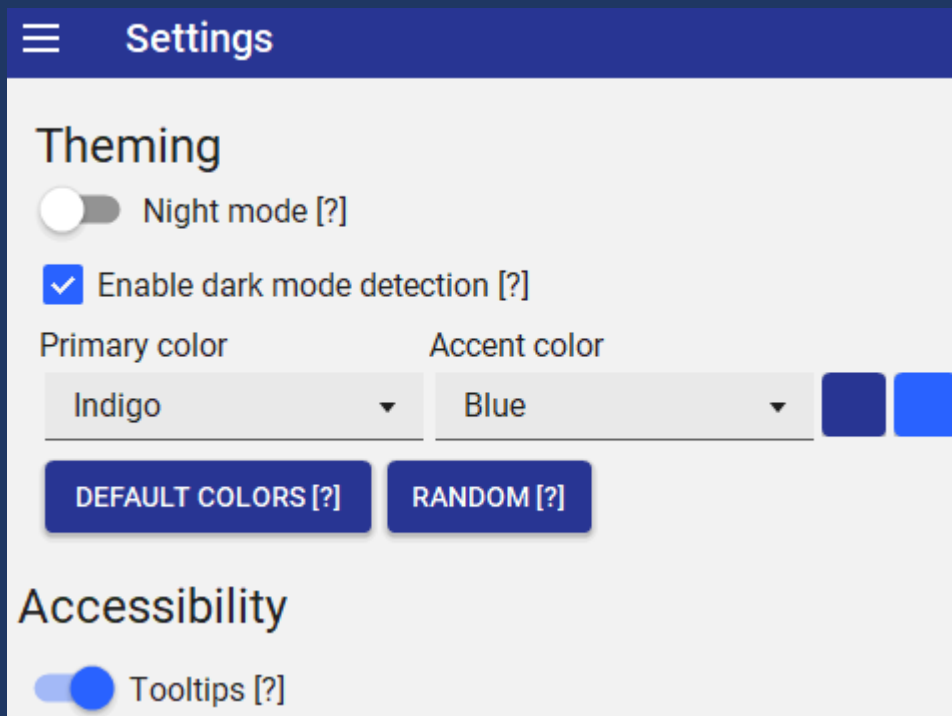
Please be patient and let the program do its own thing. After closing and opening a few times, you should now be upgraded to a new version. After upgrading, you should see a changelog listing all of the latest features. After updating the program, the offline user manual will also be updated.

8. Personalization (3.0+ only)

In blue screen simulator plus 3.0 it's possible to customize how the program looks and behaves. These settings can be found by opening the hamburger menu, choosing settings, then opening the hamburger menu of the just opened settings menu, where you can select „Appearance“.



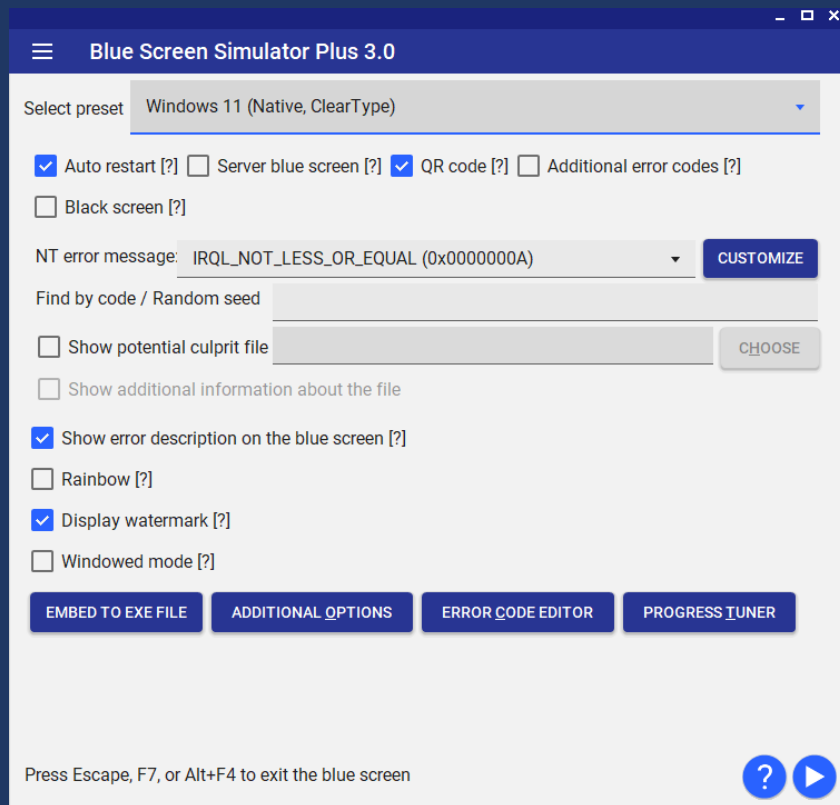
Once you've located the menu, you should see the following:



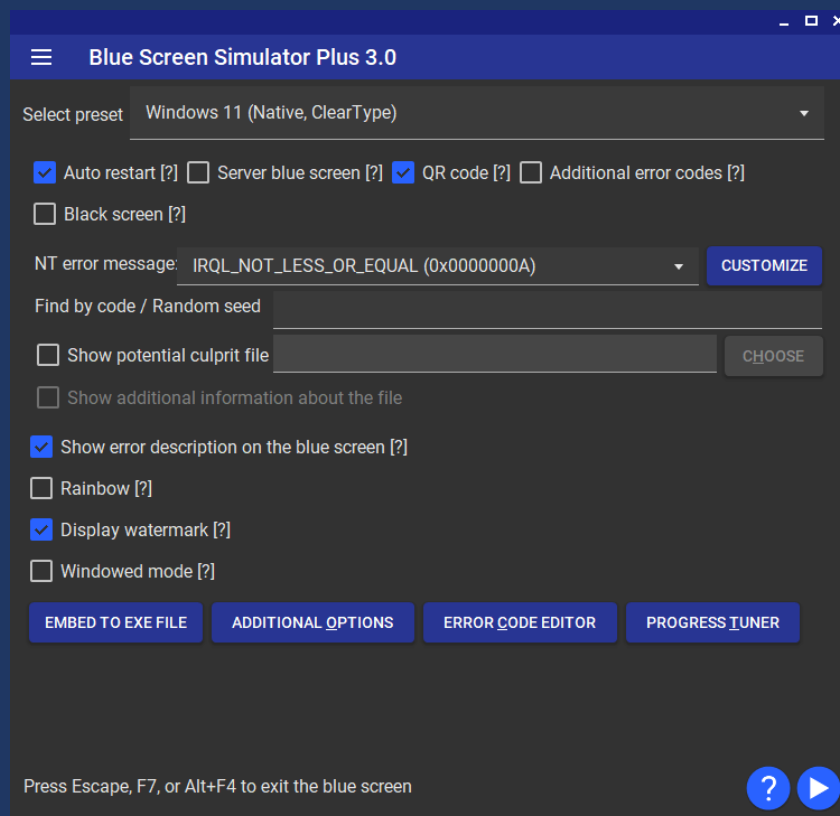
Here you can change the following options:

1. Theming
 - a. Night mode – Switches to a darker color scheme, which may be easier on the eyes to look at
 - b. Enable dark mode detection – Automatically enables night mode on startup if Windows dark mode is enabled
 - c. Accent color – Secondary color, which may be used on things like checkboxes, toggles, radio buttons, highlights etc. This will also change the version color number on the splash screen.
 - d. Primary color – Primary color, which appears on the window title bar and UI elements like buttons
 - e. Default colors – Restores the default color scheme as specified in the source code
 - f. Random – Selects a random accent and primary color for you
2. Accessibility
 - a. Tooltips – Little popups that are displayed when you hover over a UI element marked with a question mark [?]. If you find these annoying or they get in the way, you can simply disable them here.

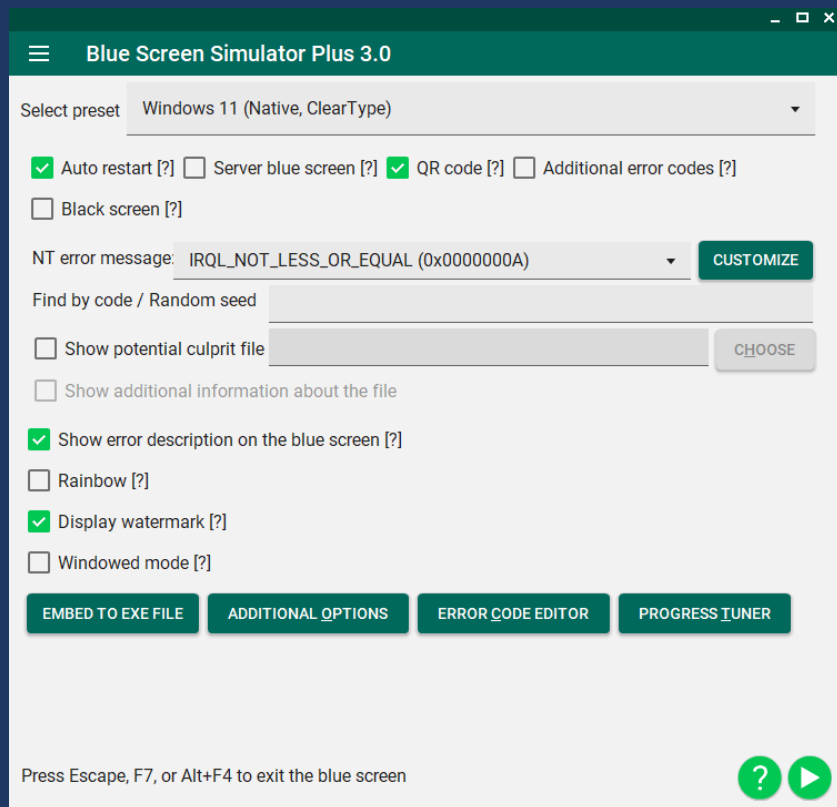
On the following pages, you'll find a few theme examples.



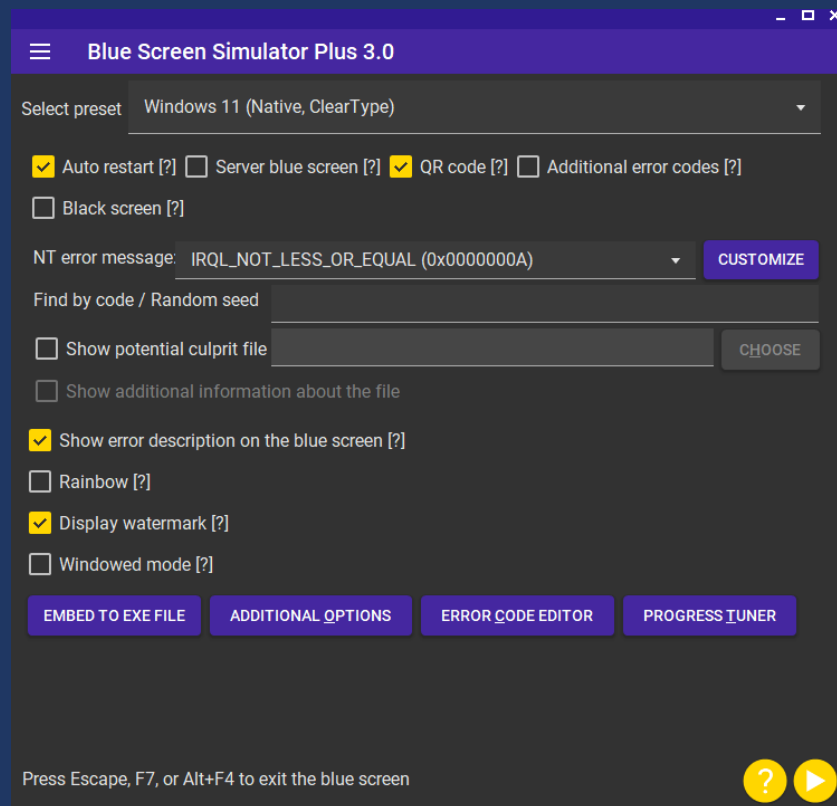
Default light theme



Default night theme



Light theme with Teal scheme and Green accents



Night theme with Deep Purple scheme and Yellow accents

9. Submitting feedback

To send feedback about this project, you can use my personal website. First navigate to <https://markustegelane.eu/>, then press the „Mt“ button. Then go to about and click on „Feedback“.

Enter a new username and password that you can remember and which you'll be using to log in again.

After signing up/logging in, click on „Send comment“. If you get an „Access denied“ error, go back and try logging in again.

After successfully clicking „Send comment“, enter a username that should appear in the comment and as the comment type what you'd like to give as feedback for BSSP 3.0. You can optionally enter a password, but it isn't required for private messages.

10. Links

Blue Screen Simulator Plus source code: <https://github.com/MarkusMaal/BlueScreenSimulatorPlus>

Online User Manual: <https://markustegelane.eu/bssp/help.pdf>

YouTube Channel: <https://www.youtube.com/MarkusTegelane>

LBRY Channel: <https://lbry.tv/@MarkusTegelane:8>

Twitter: <https://twitter.com/MarkusTegelane>