

# HOW TO: USE MY RANDOMIZER

For:

Pokemon XD: Gale of Darkness  
Pokemon Colosseum

Works For:

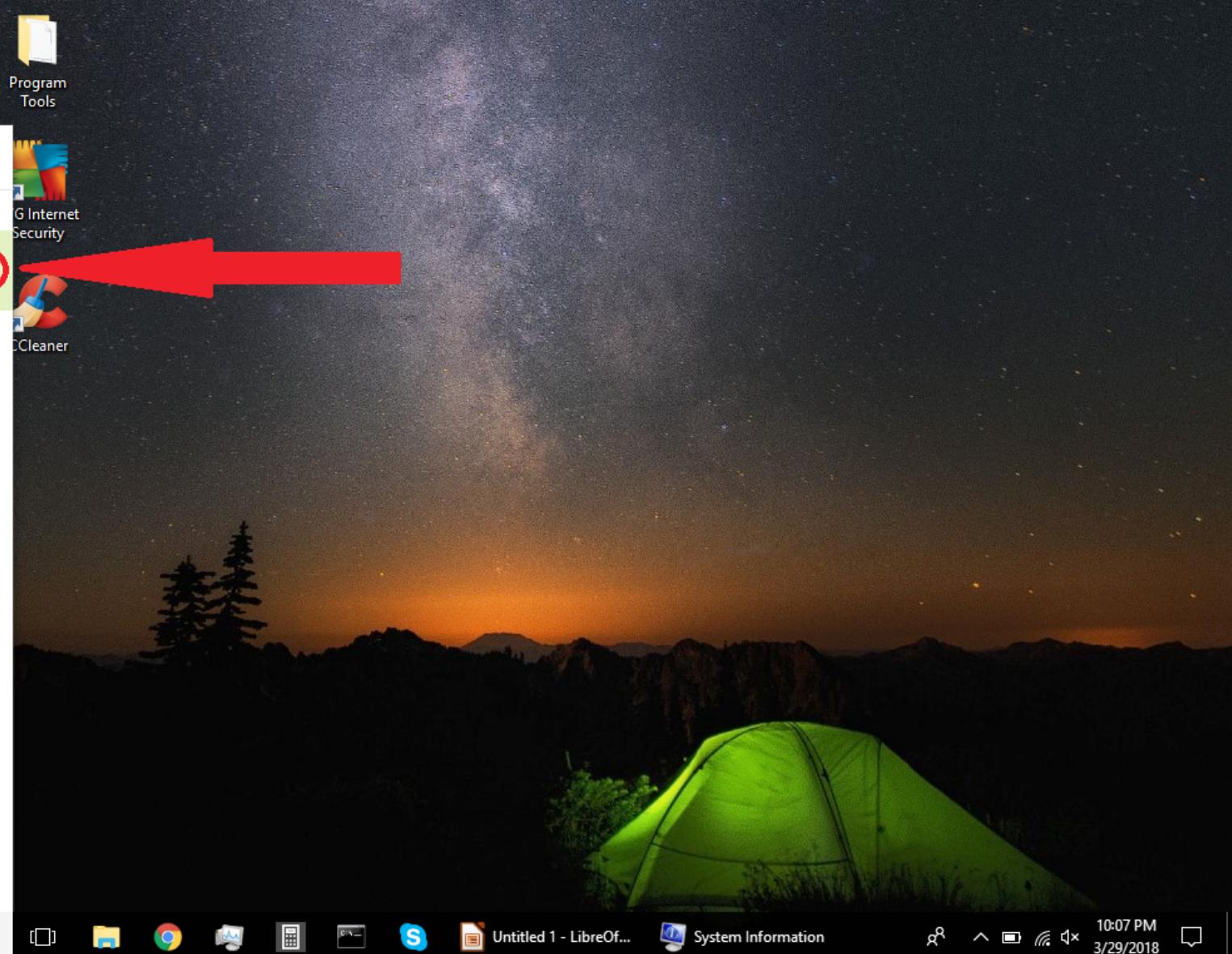
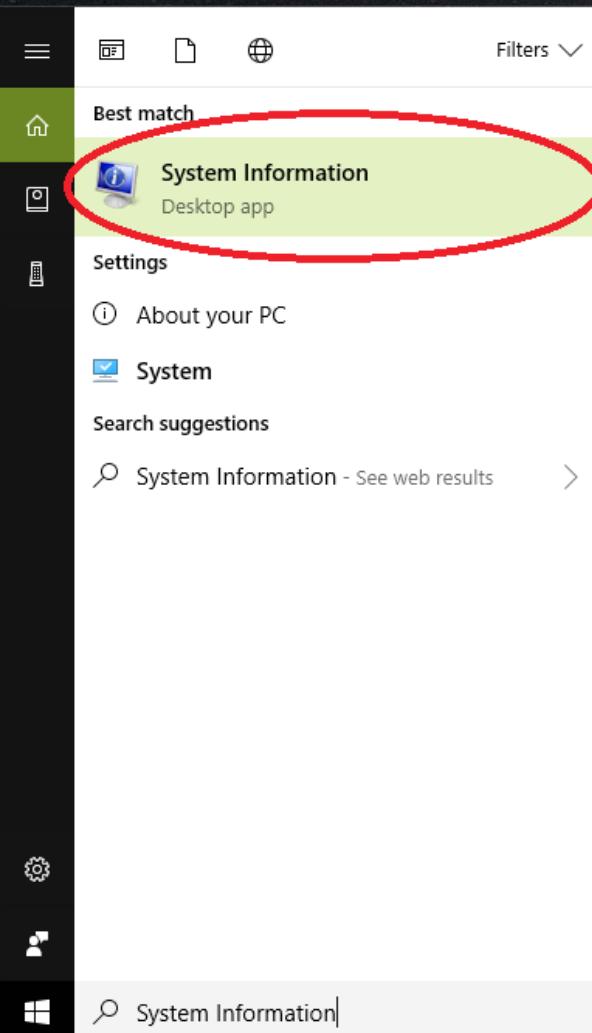
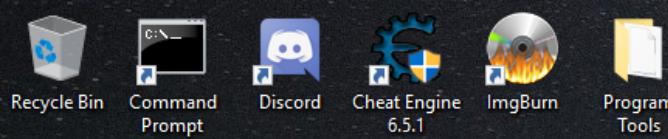
Dolphin v5.0

Windows 10 (Intel/AMD Processors)

BY: RECLAIMER SHAWN

# Step 1: Determine Processor Type

- To know what version of each tool to use, go to Cortana and Search “System Information”
- Picture Demonstration of this on next slide/page



# Step 1 (Continued)

- Click “System Information” and then check the “Processor” and “System Type.”
- If the “System Type” is equal to x64, go to the next step. Otherwise, the tool is not programmed to work with your computer and you should stop now.
- If the “Processor” has Intel on it, it’s an Intel Processor. If it has AMD on it, it is an AMD Processor. Choose the Intel Version of the tool for computers using Intel Processors and the AMD Version of the tool for computers using AMD Processors
- Demonstration of this is on the next slide/page

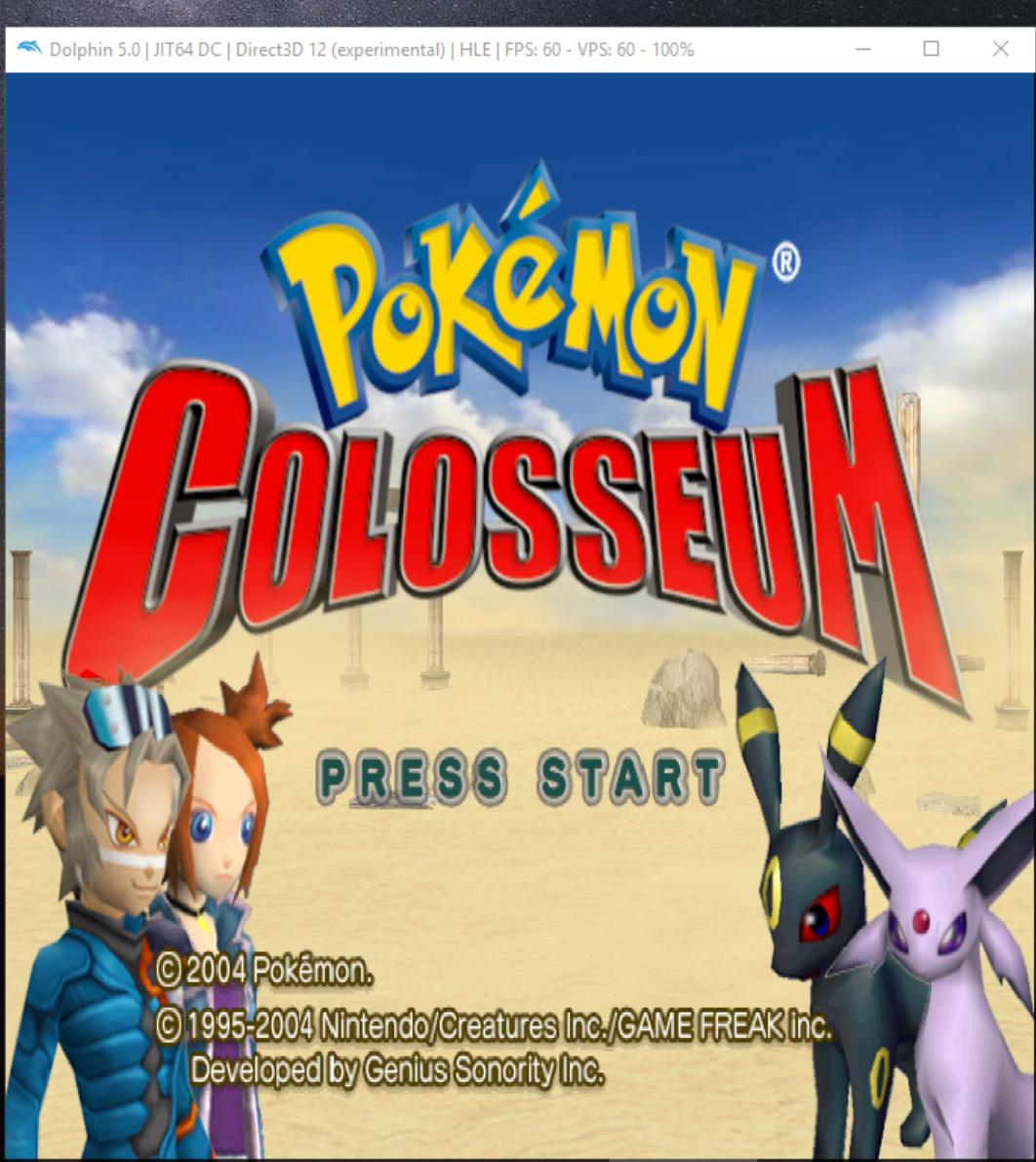
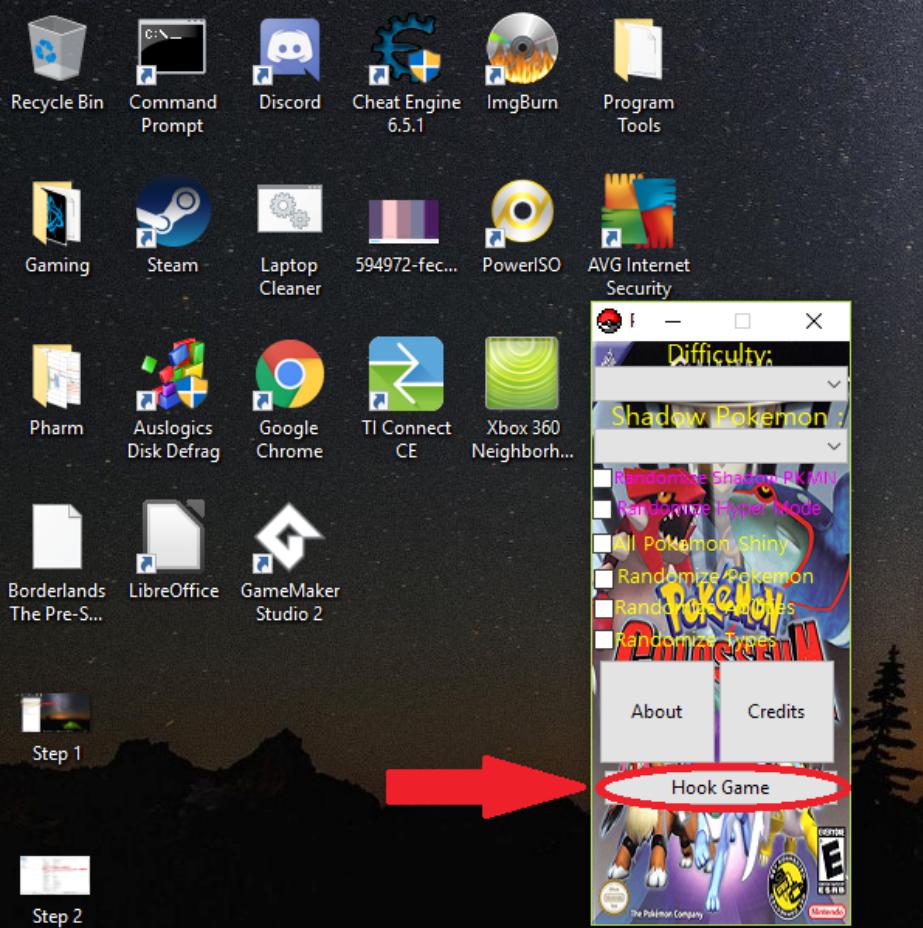
System Information	
File Edit View Help	
System Summary	
Hardware Resources	
Conflicts/Sharing	
DMA	
Forced Hardware	
I/O	
IRQs	
Memory	
Components	
Software Environment	
Item	Value
OS Name	Microsoft Windows 10 Home
Version	10.0.16299 Build 16299
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	SHAWN
System Manufacturer	Acer
System Model	Aspire E5-571
System Type	x64-based PC
System SKU	Aspire E5-571-0956_V1.04
Processor	Intel(R) Core(TM) i5-4210U CPU @ 1.70GHz, 2401 Mhz, 2 Core(s), 4 Logical Pr
BIOS Version/Date	Insyde Corp. V1.04, 5/8/2014
SMBIOS Version	2.8
Embedded Controller Version	1.04
BIOS Mode	UEFI
BaseBoard Manufacturer	Acer
BaseBoard Model	Not Available
BaseBoard Name	Base Board
Platform Role	Mobile
Secure Boot State	On
PCR7 Configuration	Binding Not Possible
Windows Directory	C:\Windows
System Directory	C:\Windows\system32
Boot Device	\Device\HarddiskVolume2
Locale	United States
Hardware Abstraction Layer	Version = "10.0.16299.248"
User Name	SHAWN\shawn
Time Zone	Eastern Daylight Time
Installed Physical Memory (RAM)	6.00 GB
Total Physical Memory	5.89 GB
Available Physical Memory	3.57 GB

## Step 2: Startup

- Run the Dolphin Emulator
- Run the appropriate version of my Randomizer tool for the appropriate game (Run this tool as an Administrator)

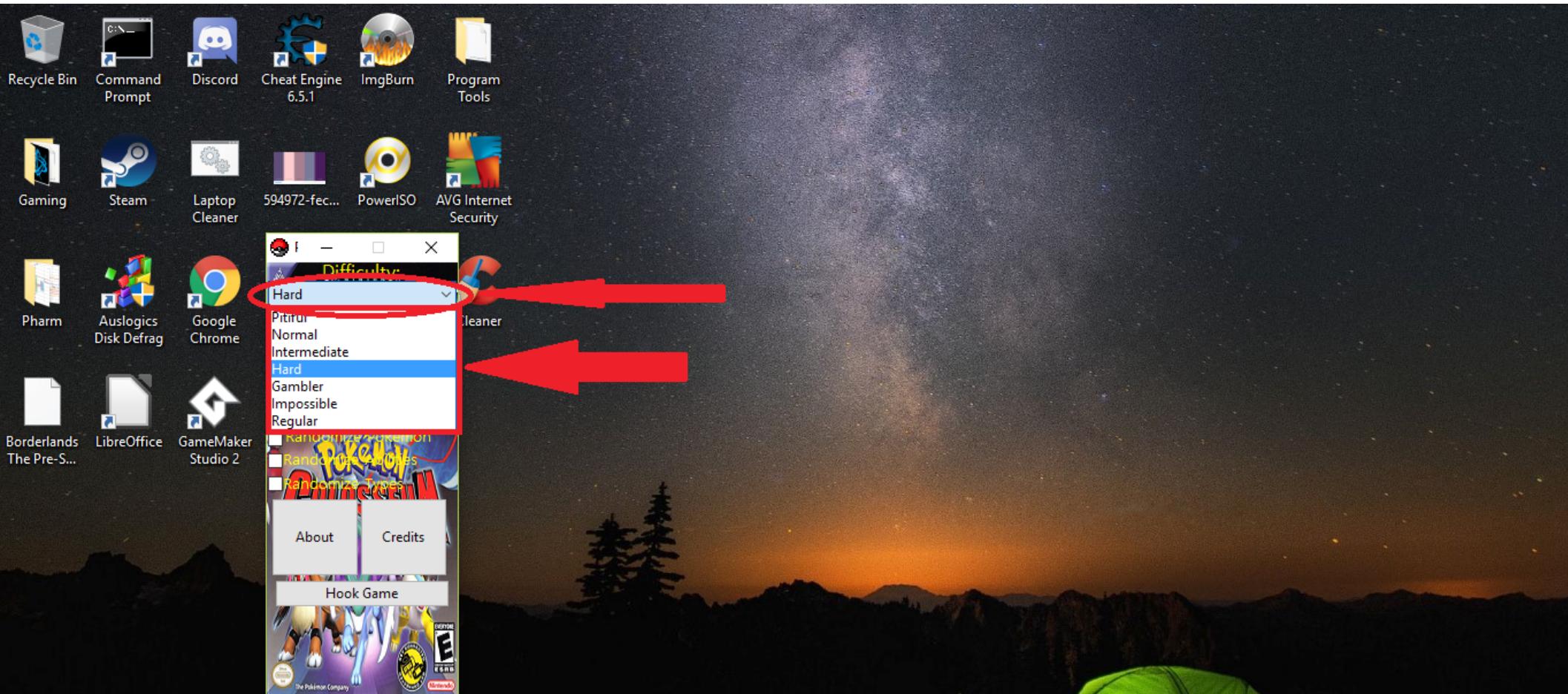
# Step 3: Hooking

- Launch the game you want to Randomize
- Press “Hook Game” on the Randomizer
- Demonstration of this on next slide/page



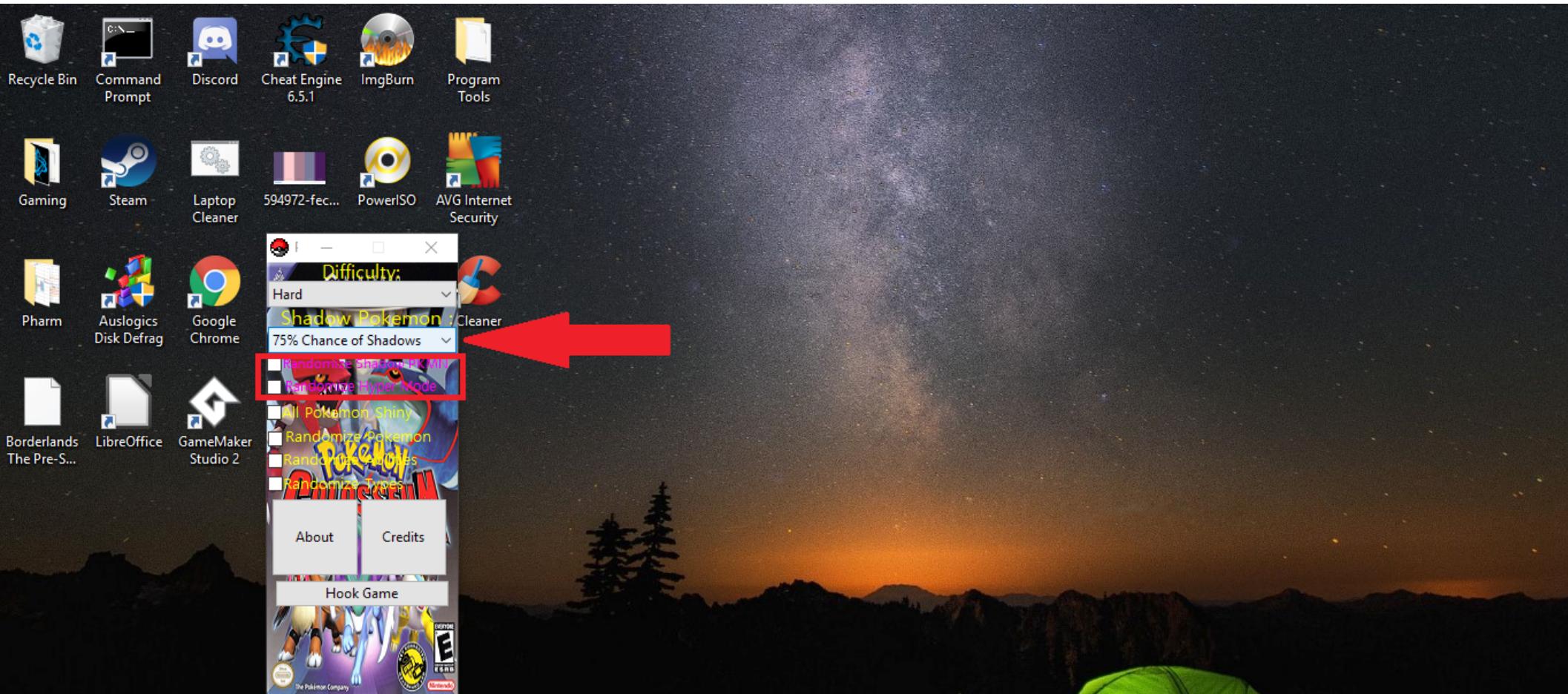
## Step 4 – Customization (Pokemon Colosseum)

- The first thing to set is the “Difficulty” drop-down box on the tool
- Pitiful: All Pokemon Level 1 and Insta-Kill. They can only do about 1-2 damage each
- Normal: All Pokemon Level 50 and have normal-ish stats. They have mid-range EVs and IVs
- Intermediate: All Pokemon Level 75 and have hard-ish stats.  
EV/IV bounds are generally within top 75-80%
- Hard: All Pokemon Level 100 and have overpowered stats. EVs all equal 255, and IVs all equal 31.
- Gambler: Pokemon Levels 1-255, though they generally insta-kill unless you’re lucky.
- Impossible: All Pokemon Level 255 and have 65535 for all stats (except HP, as to which they have 32767). The only way you kill these is via them killing themselves, Curse, or Endeavor/Focus Sash/Quick Attack.
- Regular: Level progression follows base game. Stats are the same as the regular game, but moves and abilities can still be randomized (I like this one the most)
- Demonstration of this on next slide/page.



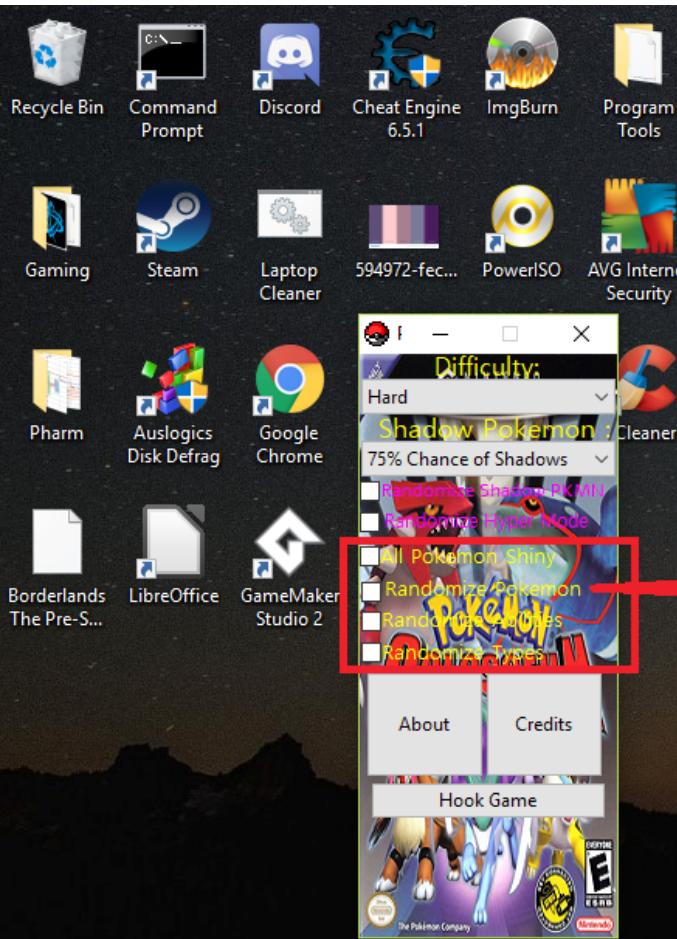
# Step 4: Colosseum Continuation

- The next thing to set is the “Shadow Pokemon” drop-down box. This sets the chance shadow pokemon appear if you check the “Randomize Shadow PKMN Checkbox.”
- The % chance is the chance you’ll encounter a Shadow Pokemon if Shadow Randomization on. Otherwise, it takes no effect. Still, set the drop-down to something.
- If the “Randomize Hyper Mode” box is checked, a Shadow Pokemon randomly generated by the tool has said % chance of being placed into Hyper Mode. If the “Shadow Pokemon” drop-down box is set to 75%, then Shadow Pokemon have a 75% chance of appearing. These shadow pokemon then have a 75% chance of entering Hyper Mode, causing the pokemon to constantly critical hit and only use Shadow Rush.
- Demonstration on next slide/page



# Step 4: Colosseum Continuation

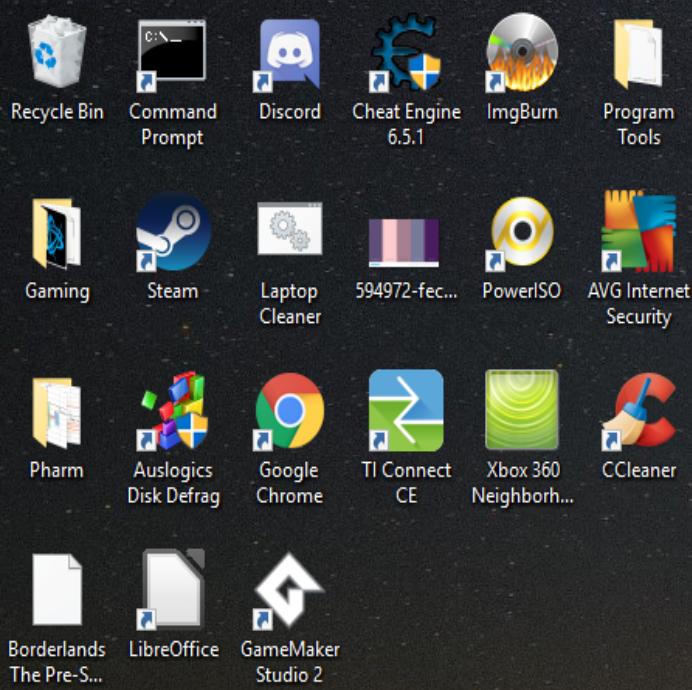
- Next, check the “Randomize Pokemon” box. Nothing on this tool works without it.
- The next setting are optional.
- If you click the “All Pokemon Shiny” checkbox, all pokemon will be Shiny and have a Bashful Nature.
- If you click the “Randomize Type” and/or the “Randomize Abilities” checkboxes, you can randomize Pokemon types and Abilities to be anything in the game.
- Demonstration on next slide/page

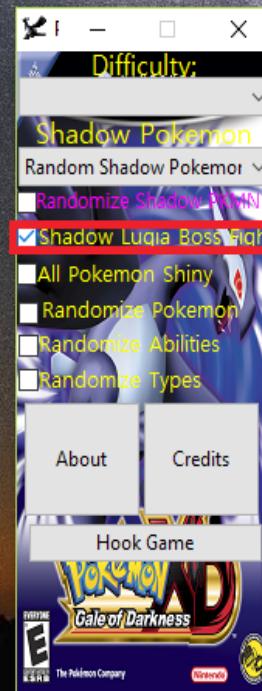
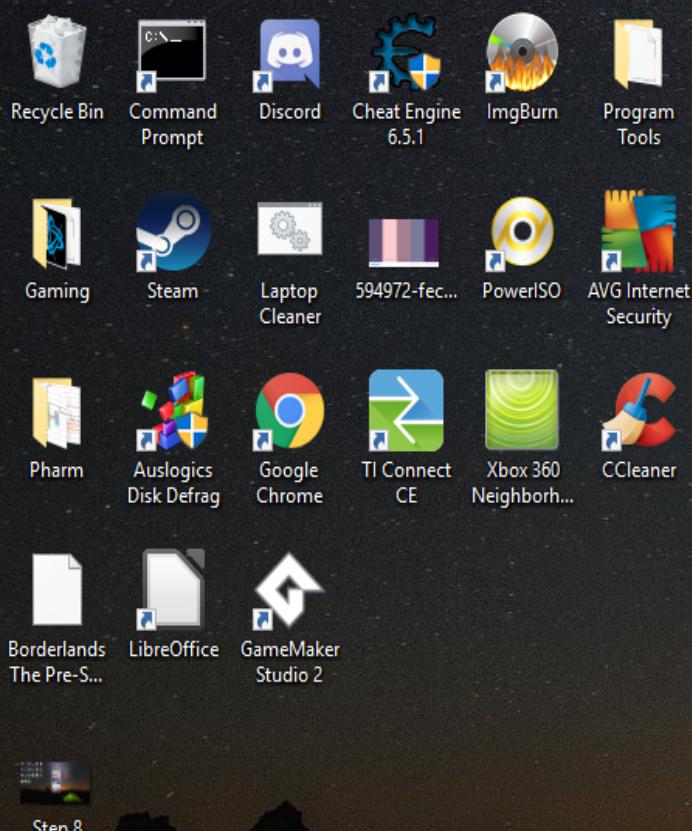


Check this box

# Step 4: Customization (Pokemon XD)

- Almost exactly the same as Pokemon Colosseum
- The only things different are the “Shadow Pokemon” randomization options, the lack of the ability to Randomize Hyper Mode, and an option to initiate a Shadow Lugia Boss Fight.
- Shadow Pokemon are randomized based on index and whenever this is randomized at first, almost everything you encounter will be shadow. Chances of encountering Shadow Pokemon are  $(82 - \text{total shadow pokemon purified})/83$
- Chances of Shadow Pokemon decrease as you purify more Shadow Pokemon
- Checking the Shadow Lugia Boss Fight checkbox spawns a Shadow Lugia with the same stats it would have on “Impossible Mode.” Bring a Master Ball.
- Demonstration of this on next two slides/pages





# FAQ – How does this tool work?

- This tool does SEVERAL things to accomplish its purpose. First off, it generates a random number based on what time of the day it is in milliseconds.
- Then, based on said random number, the tool generates a number within the parameters I set to a variable.
- This variable is then written to data areas in Dolphin's RAM. (Data values in Cheat Engine view are generally 0x10000 or 0x20000 from their Dolphin equivalent in the Cheat Search. This is because Cheat Engine looks at every bit of program code while Dolphin's Cheat Search only searches within game code.)
- Several different variables are used and values are changed in and out of them and written every millisecond. Health syncing was a bit difficult to do as it could only be done on a millisecond-by-millisecond basis, so I had to find an area in the memory that marked the crucial moment when health couldn't be synced properly (directly after the Pokemon comes out of its Pokeball). The tool checks to see if the Pokeball animation is playing, and then writes the appropriate health until it stops playing that animation.
- Further links for research and other purposes will be on the last slide

# FAQ – What is DBK64?

- DBK64 (and DBK32) are both system driver files (.dlls) that are packed with the software. These files load something called Dark Byte Virtual Machine (DBVM). A window should flash up saying “DBK64 Loaded” whenever my tools are started. Dolphin has memory protection, and by allowing the tool to have Kernel Level Access via DBVM, my tool can bypass Dolphin’s Memory Protection. DBK64 flashes up to alert the user such bypassing is occurring. I use this module to do nothing Malicious, but some users DEFINITELY could. Dark Byte (Eric), the creator of Cheat Engine, made DBVM.

# FAQ – Is it a Virus?

- No, my tools are not packed with Malware, Viruses, Bloatware, Trojans, Worms, Rootkits, or anything negative of any kind. These tools are used to hack into the Dolphin Process and employ the same strategies some Trojans do to alter code, but only for the purposes of what we want. Antivirus software uses something called heuristics, that is, if something looks or acts somewhat like a virus, the Antivirus software identifies the program as a virus. I can assure you the software is safe. If you're unsure, simply check out the Source Code of the tool that I'll link to afterwards.

# Warnings and Misc. Info

- DO NOT CHANGE RANDOMIZER SETTINGS DURING A BATTLE! If you really want to change Randomizer settings, do it after a battle ends.
- These programs only work whenever Dolphin is first launched and whenever the first game has been loaded. Dolphin reallocates its memory after every game launch, so if you launched something like Metroid and then launched Pokemon XD, the tool wouldn't work. You'd need to close and restart Dolphin to get it to work. Also, if you load Pokemon XD/Colosseum, close out, and then load Pokemon XD/Colosseum again, you'll also need a restart.
- With the Shadow Lugia Boss Fight, uncheck the checkbox after Shadow Lugia is thrown out. Otherwise, Lugia will have infinite health and respawn infinitely.
- These programs do not work with x86 Processors (32-bit). I can get them to work for those processors if a person who has one allows me to remote control their computer via TeamViewer and rebuild the program from there. I also highly doubt these programs will work for any other OS than Windows 10. Not only that, but there's a chance the AMD Version of the Colosseum Randomizer doesn't work.
- If you wouldn't mind telling me which OSs/Processors these programs work with, or wouldn't mind me remote controlling your laptop to build a 32-Bit version of these tools, you may contact me on my YouTube Channel (<http://www.youtube.com/c/ReclaimerShawn>) or my email address ([EpicZombie7@gmail.com](mailto:EpicZombie7@gmail.com)) I check my YouTube channel a lot more than I do my email, but you don't want to be giving TeamViewer information out to random people on YouTube as that can be VERY dangerous.

# Credits

- First and foremost, I'd like to thank both God and his son Jesus Christ for giving me the knowledge and patience to make this trainer.
- Reclaimer Shawn = Programming, Form Designing, Address Finding
- Dark Byte = Bypassing Memory Protection
- Codejunkies and Ralf = For their AR Codes that allowed me to dissect these games
- Zanzer = RNG & Programming
- StarsMmd = For Disabling the Colosseum Shiny Pokemon Glitch & Address Finding
- Nintendo = For Creating the Pokemon Franchise
- Dolphin = For Creating the Emulator this game was played on
- Ryan Robinson = For letting me TeamView his laptop in order to make the program compatible with AMD Processors

# Further Links and Resources

- Research Links:

[http://bulbapedia.bulbagarden.net/wiki/Personality\\_value](http://bulbapedia.bulbagarden.net/wiki/Personality_value)

<http://bulbapedia.bulbagarden.net/wiki/Statistic>

[http://www.smogon.com/ingame/rng/pid\\_iv\\_creation](http://www.smogon.com/ingame/rng/pid_iv_creation)

[http://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9mon\\_data\\_structure\\_in\\_Generation\\_III](http://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9mon_data_structure_in_Generation_III)

<http://bulbapedia.bulbagarden.net/wiki/Experience>

- My Programs and their source code:

<https://github.com/ReclaimerShawn/My-Programs>