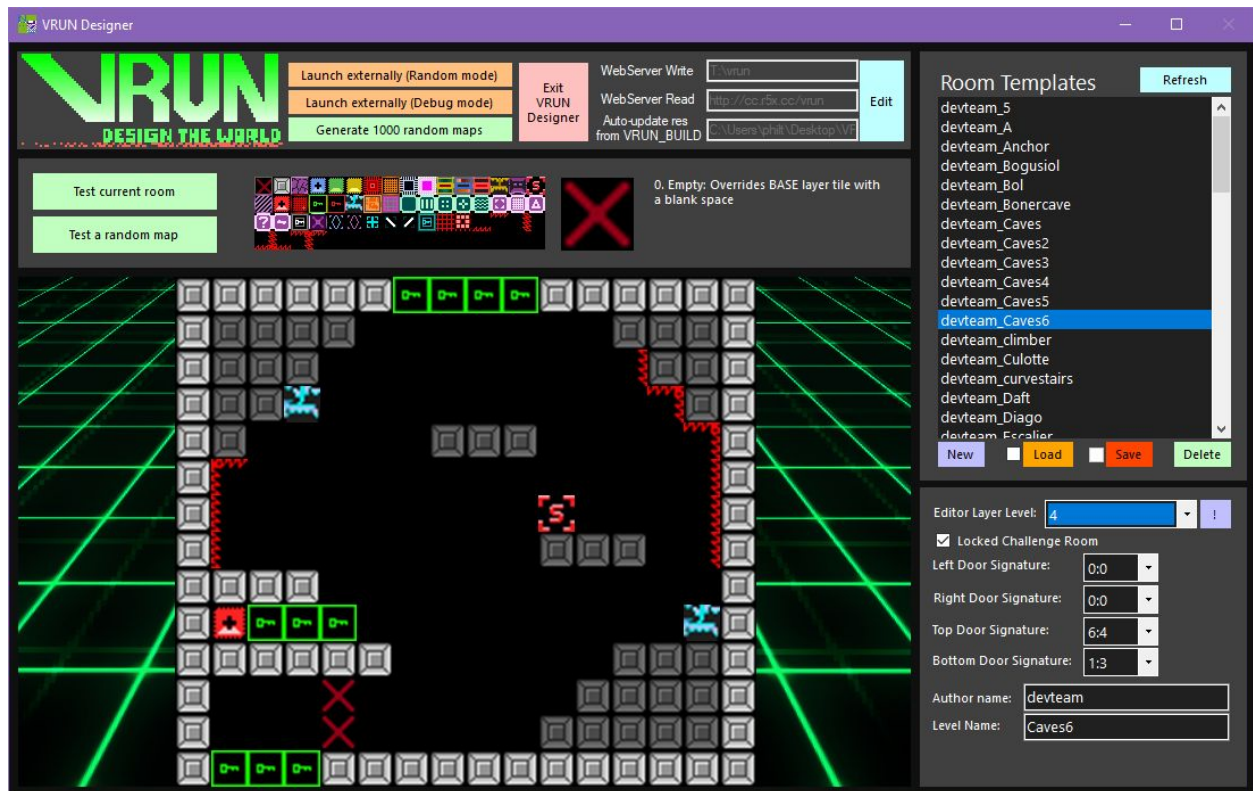
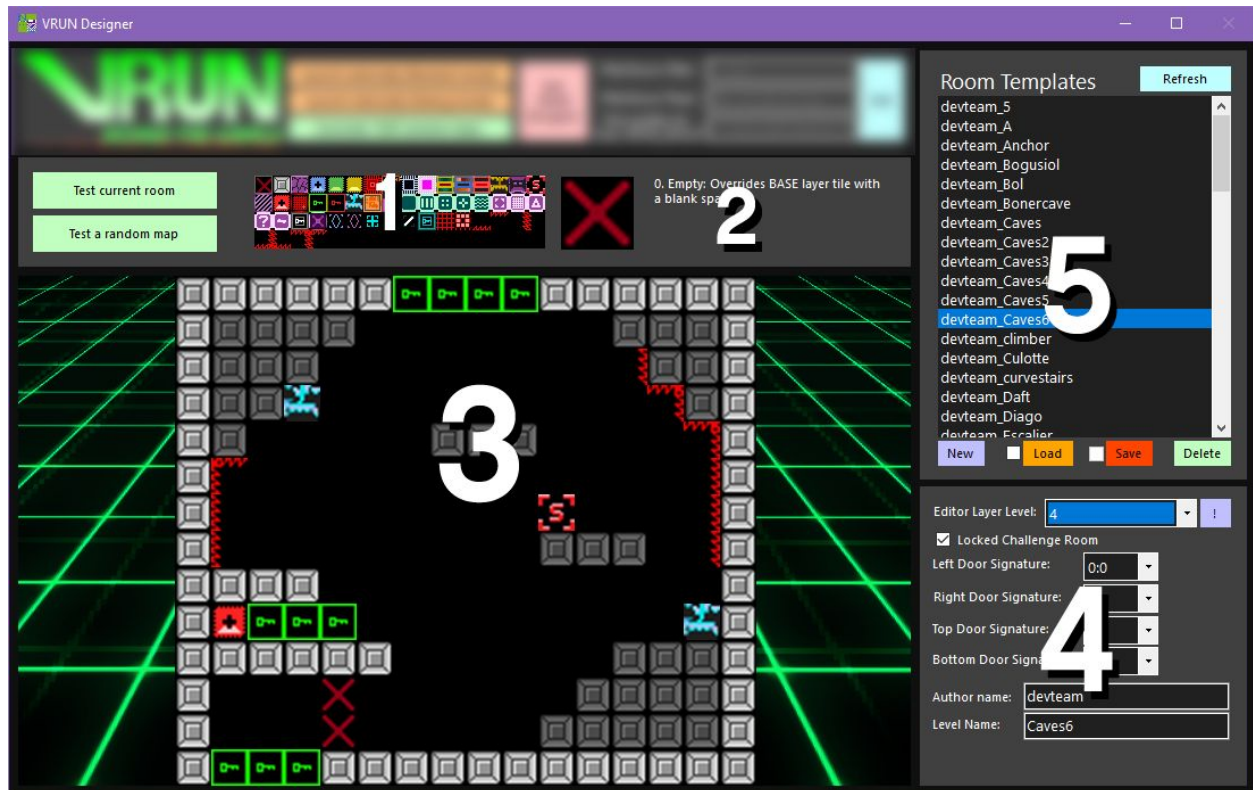


Guide for making VRUN Rooms

VRUN requires a level to have 6 levels, although the editor can support up to 9. **Do not** put anything in levels 7,8,9 as they won't be taken into account by the generator.

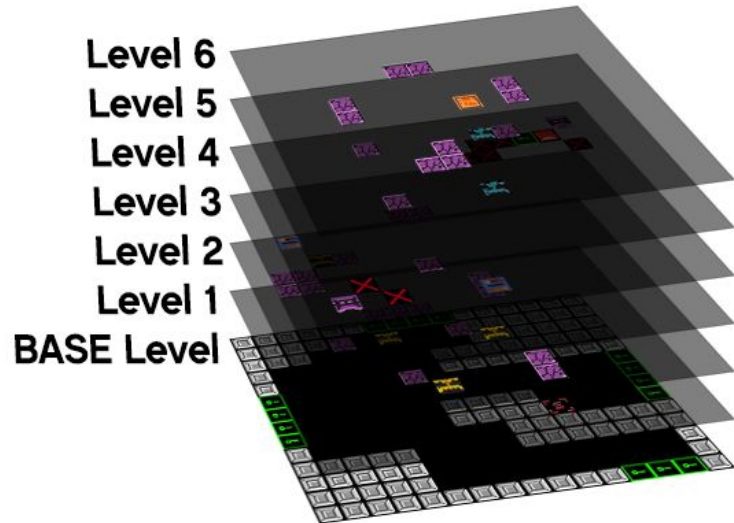


The program in Edit Mode

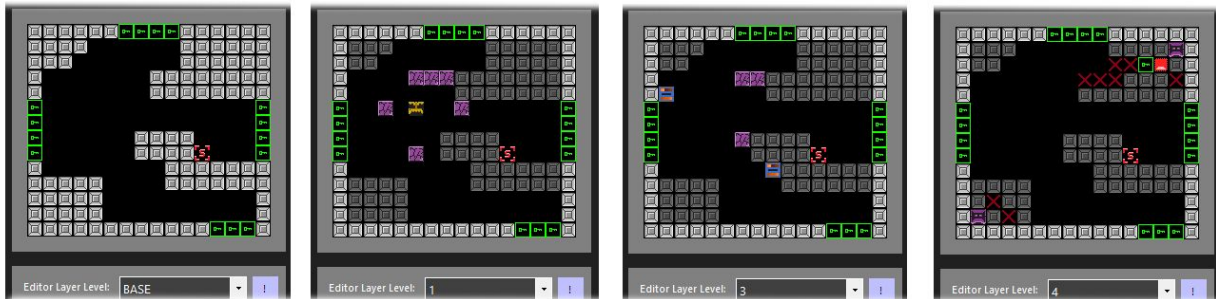


1. This is the tile selector. The selected tile will show on the right and information about object interaction will be displayed.
2. This is where a brief paragraph of information about the selected till be will displayed, make sure to always respect required level restrictions.
3. This is the tile grid. You can paint tiles with the left mouse button and remove them with the right mouse button.
4. These are the Room parameters and selected layer.
5. This is the list of all saved rooms (these are stored in the room folder).

Tile grid



During random generation of the map, 6 levels are created. In order to be compliant to the generator, each levels of the game must be filled with enemies and obstacles. A room layer is always stacked upon the BASE Level and not against previous levels. This means that when you design levels, the level changes do not impact each other.



As you can see, all levels derive from BASE. X tiles are used to create empty space.

Player Spawn Point (Tile #15)



Every room must have a player spawn point. It must be in a safe spot from which the player can reach any door. The last room of a level spawns a miniboss (Level +2 enemy) at the player spawn.

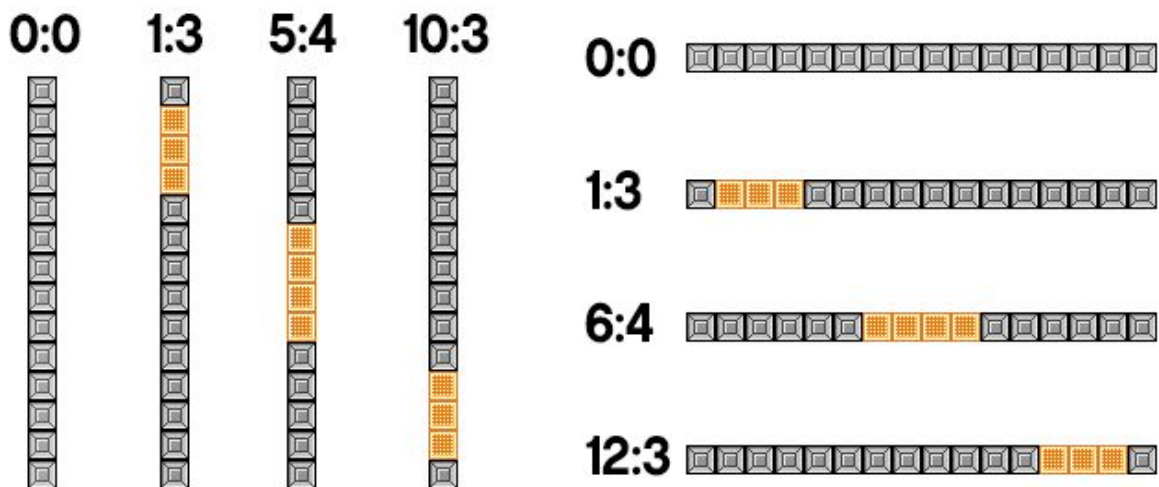
Since a player can potentially come into a miniboss room from the top, make sure the top door doesn't make the player fall straight into it.

Door signatures

The game generator uses Door Signatures in order to pair rooms together during the game generation. A room can have 2,3,4 doors but not 1. Rooms with 1 door can never be observed by the player as they get automatically converted into shops. *Never make rooms with only one door.*

Left Door Signature:	5:4	▼
Right Door Signature:	5:4	▼
Top Door Signature:	6:4	▼
Bottom Door Signature:	12:3	▼

Here's the different possible horizontal and vertical setups for door signatures



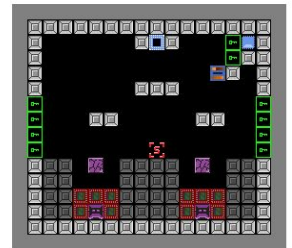
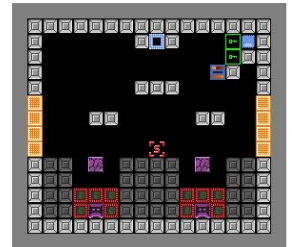
Keep in mind that putting 4 doors to a room template doesn't imply the room will always have 4 doors. A room with 4 doors can also spawn with 2 and 3 doors and a 3 door room can spawn with only 2.

Locked Challenge Room

Rooms can be locked in order for them to become a challenge room. When enabled, the doors will lock as the player enters the room and they will be unlocked when the room gets empty. The lock affects all layers of the room.

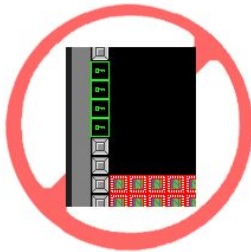
Even when the room is not locked, all enemies must be killable with a weapon that cannot go through blocks. This requirement is due to the last room of each level being locked for the miniboss enemy.

You can put Pick up items behind a locked door tile (no #19). This lets you mini challenges while letting the player skip the room.

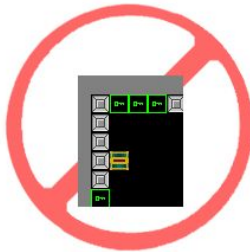


Things that you shouldn't do

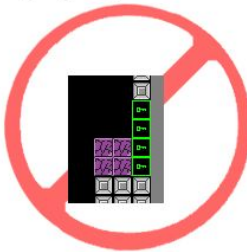
Doors without safe platforms



Doors where you fall into the enemy



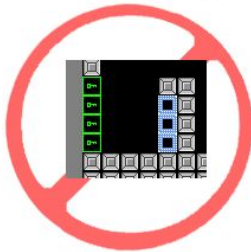
Doors with entry covered by anything



Trapped enemies that can't be killed



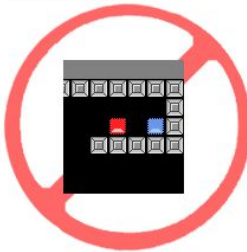
Unfair room entry traps



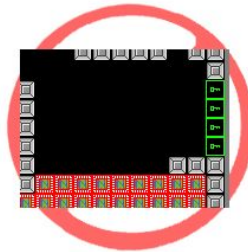
Player spawn wrapped in blocks



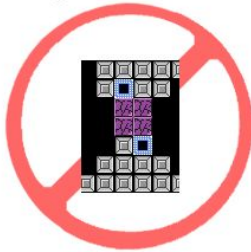
More than one powerup in a room



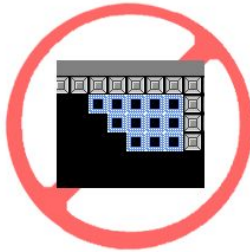
Areas requiring player damage



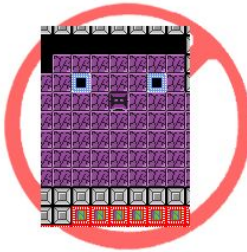
Setups that can softlock the game



Too many tears in a cluster



Camouflaged enemies



Intentionally clutch areas



Guidelines for level layers

Level 1

This is where the game starts. Keep it chill

Allowed objects



001. Block



002. Brick



018. Horizontal Mover L1



013. Bouncing Enemy L1

Keep it calm and easy. You can toss in clusters of bricks, from which the player can farm currency. If you show Bad Sectors, display them enclosed in blocks. Whenever possible, don't directly expose the player to them on Level 1, but that can be allowed.

Level 2

Dangerous blocks and power ups

New allowed objects



006. Bad Sector



008. Tear



003. Blue++

Without going crazy, add Bad Sectors and Tears in the layout. Enemies from Level 1 are still used but the terrain can now have platformer obstacles.

Level 3

Enemies are now stronger and will hunt for the player

New allowed objects



012. Health++



011. Horizontal Mover L2



014. Ghost Enemy L1


Weaker enemies can be used but the new ones are seen more regularly. Holes in the layout can help the player spot Ghost Enemy as they are going towards it. These enemies go through blocks can be attracted towards exploding tears for an easy kill.

Level 4

Enemies can now shoot at you

New allowed objects




 021. Bouncing Enemy L2

 044. Red Spikes Top

 045. Red Spikes Bottom

 046. Red Spikes Left


 047. Red Spikes Right

Multiple  Ghosts and  Bouncing Enemies will create a hazardous environment. Enemy Red bullets are always shot at “random” directions. Don’t put more than one  Bouncing Enemy if there are other enemies in the room.

Level 5

You gotta fight fire with fire




New allowed objects



 012. Horizontal Mover L3

 022. Bouncing Enemy L3

 042. Red Grid

 043. Red Grid Mover

You can now put more  Bouncing Enemies in the same room. You can put one of the new allowed   enemies from time to time, these can be a real pain in a clutch.


> Stop putting  Red Spikes and exclusively put  grids






Level 6



This is the end. You’ll probably die.

New allowed object

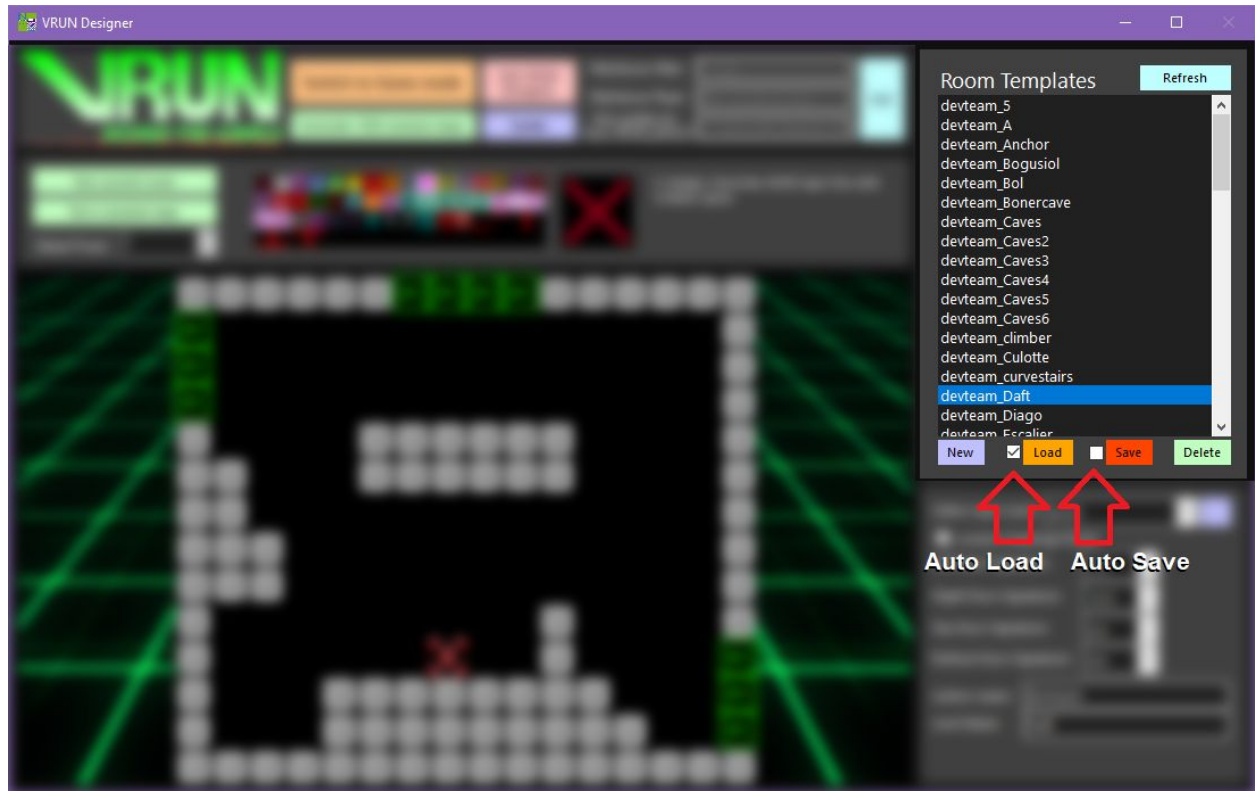
 023. Ghost Enemy L2

Yep, this is the clutch area. It’s hell. You can put on two  Bouncing Enemies if you want.

Booby trap the player with  tears and  bad sectors. Easier   enemies are harmless to the player if they made it this far. Toss in a  Ghost Enemy from time to time. They’re really hard to fight and the player will most likely evade the room or skip it.

> You can now bring  red spikes back and combine them with  grids.

Managing room templates

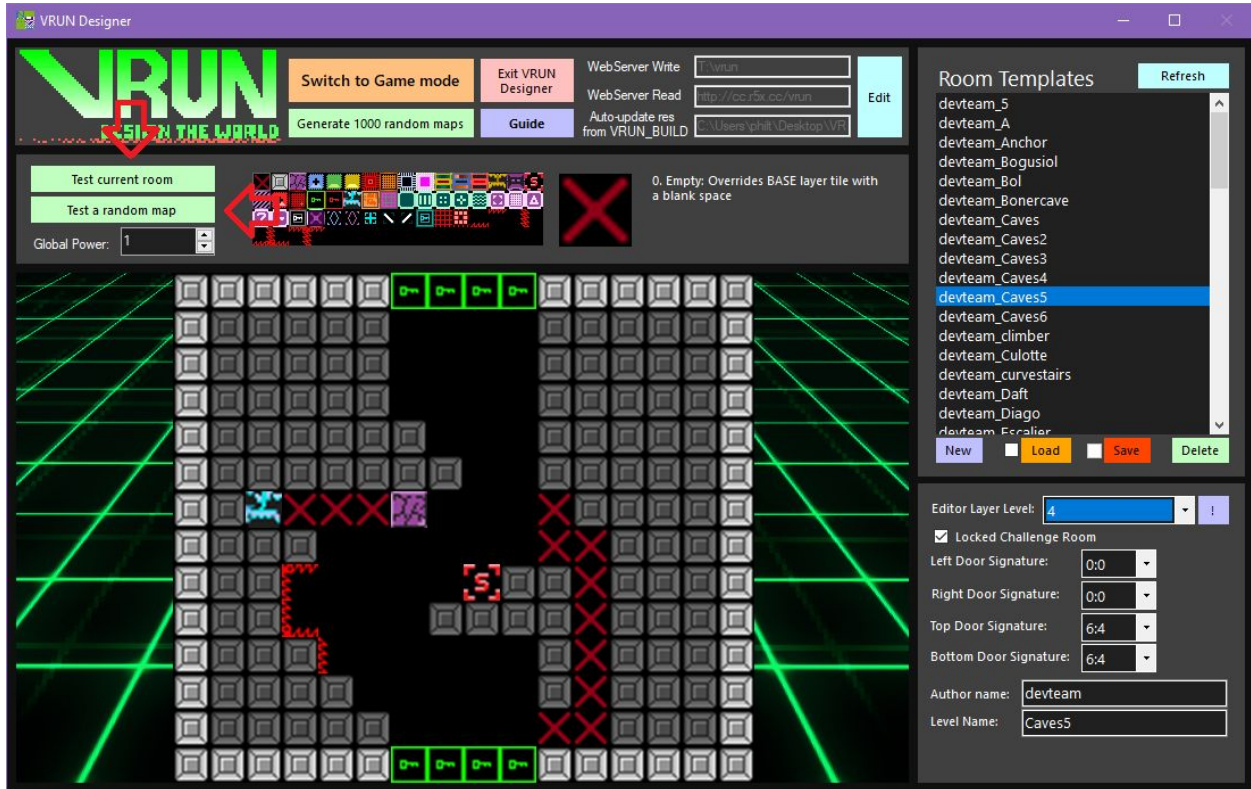


Every saved level must have an Author name and a Level name. These combined will generate the filename of the room file saved in the rooms folder.

Auto Load and Auto Save allow you to make the interface load and save seamlessly as you browse.

Be weary that these Auto options can cause lost progress if used improperly.

Testing rooms



The designer buttons to test the room currently being edited or test a random map. You can also change your starting power using the numeric box under the buttons.

The buttons will change to display game test controls. The whole editor is disabled while a test is in progress.



Optional Dedicated server:

If you want to run a dedicated Test server, you'll need to populate some additional fields, this is completely optional as the Designer already implements its own server but a PHP server allows your pool of maps to be accessible from other computers.

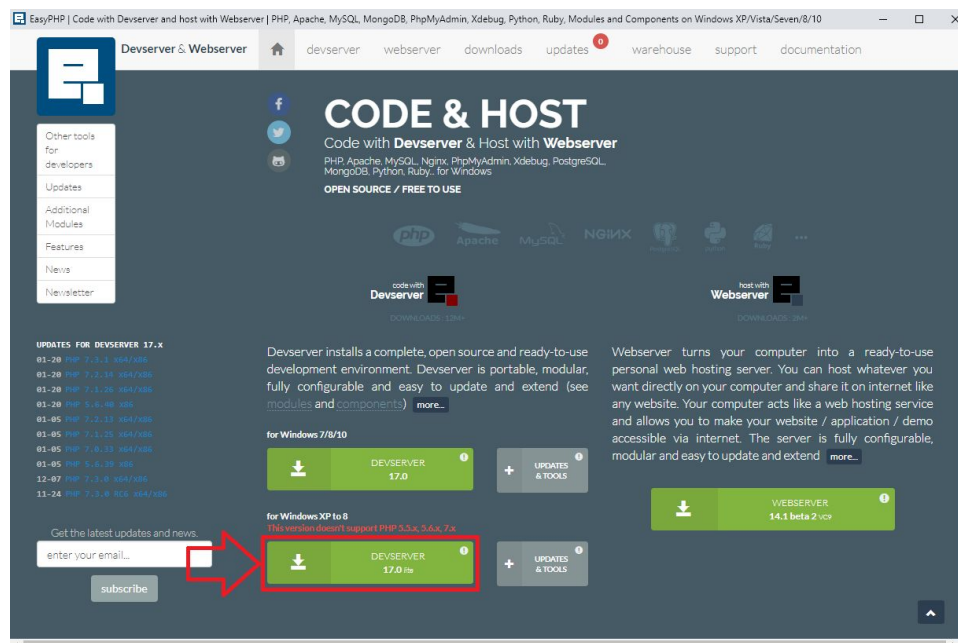
Take note that you will need to **Generate 1000 random maps** if you run a dedicated instance for it to be playable in a browser. The Windows Application version generates maps on the fly.

The "Auto-update res from VRUN_BUILD" is for upgrading the game engine, it requires a CF2.5 dev setup with the html5 export module..

If you need to setup a php server for debugging, see the steps below:

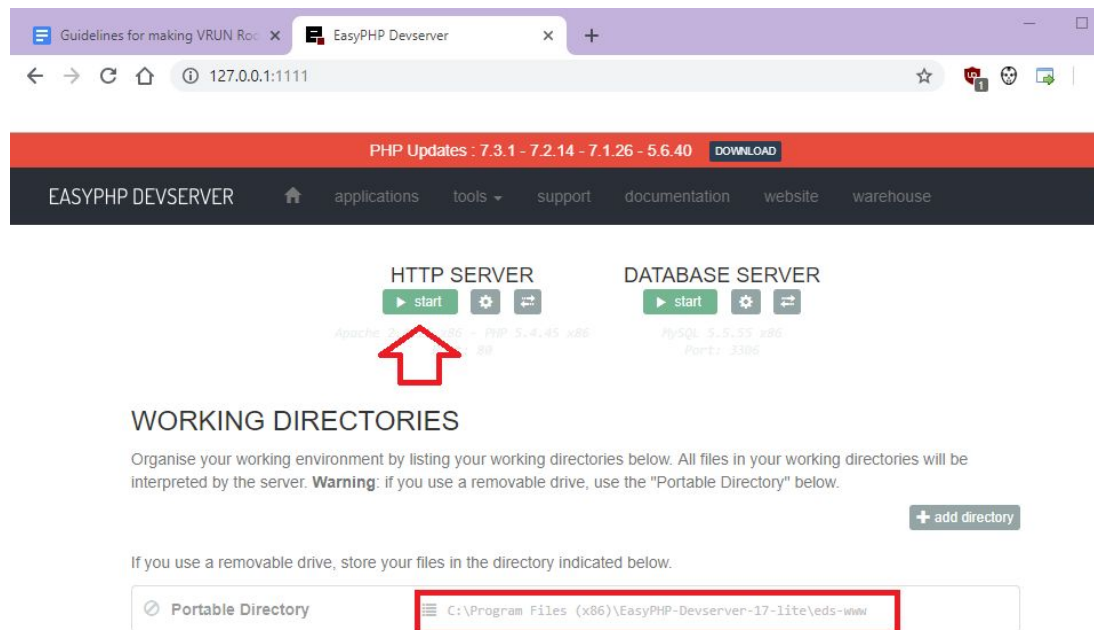
Installing the game with on an Easy PHP server

Download and install Easy PHP Dev Server at <https://www.easyphp.org/>

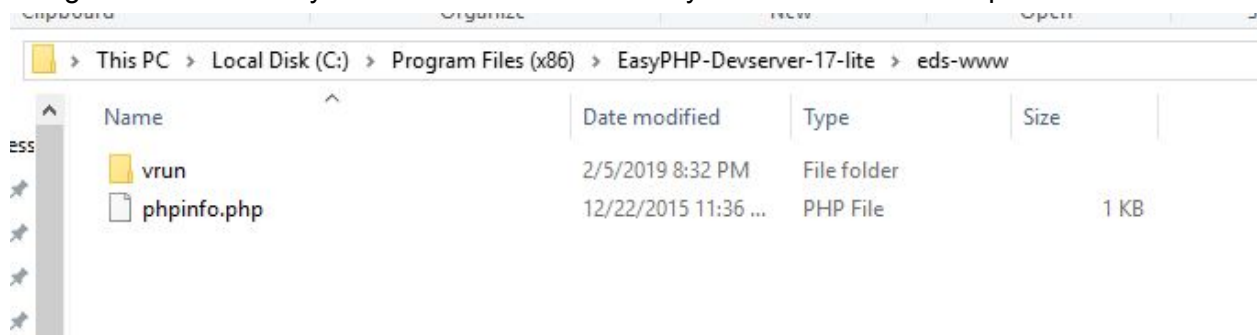


If you first start easy php and it doesn't seem to do anything, kill it in the processes. It did that to me when I installed it.

Open the dashboard from the systray icon and start the http server.



Navigate to the directory shown in “Portable Directory” with the Windows Explorer.

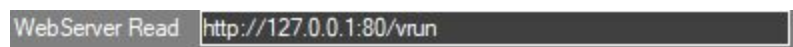


Install vrunk in this folder. You should end up with a folder called “vrunk” inside “eds-www” and you should see index.php and game.php in the vrunk folder.

You'll want to write `C:\Program Files (x86)\EasyPHP-Devserver-17-lite\eds-www\vrunk` in WebServer Write



You'll want to write in <http://127.0.0.1:80/vrunk> WebServer Read



Once all of that is set, you should be able to test and play the game with the rooms you made.

You can access the game in Google Chrome at this address <http://127.0.0.1:80/vrunk>