

Frontier: Elite II, DOSBox, and You

A guide by Anon.

Okay, so you want to play Frontier: Elite II. That's understandable – it is a great game, after all. But, being released in 1993, it has some issues running on modern systems. I can help with that.

I'm going to be looking at the DOS version of the game and making it run in DOSBox. In my opinion, it is the superior version of the game, and I know DOSBox to a degree whereas I don't know Atari ST or Commodore Amiga emulation. Anyway, let's get on with it.

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1. Necessary Items

Okay, so, before you start, you need to download some things. You will need

- A copy of Frontier: Elite II
- A copy of DOSBox
- CoolSoft's VirtualMIDISynth

To save you the trouble of Googling these things, here are some handy hyperlinks:

Frontier:

<http://www.sharoma.com/frontiervse/game.htm>

DOSBox:

<http://www.dosbox.com/download.php?main=1>

VirtualMIDISynth:

<http://coolsoft.altervista.org/en/virtualmidisynth>

For Frontier, you can get any DOS compatible version, but I would recommend the Frontiervse version.

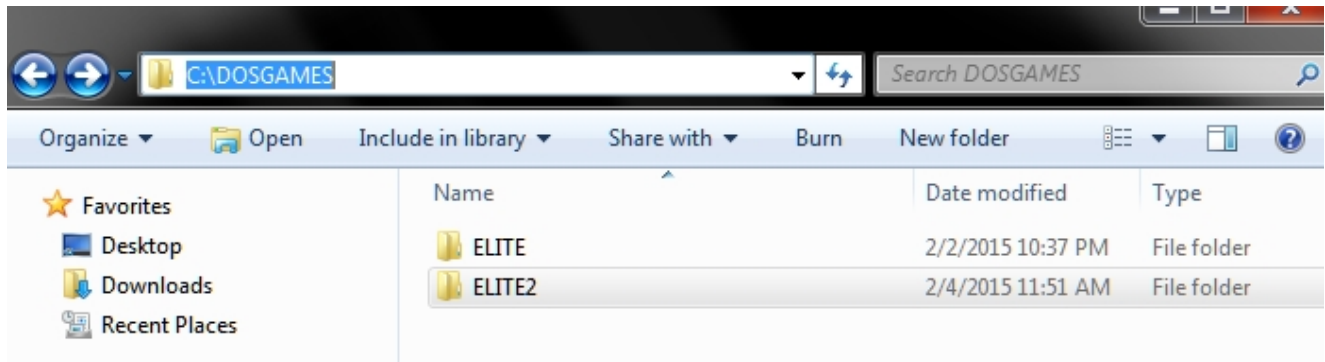
File Name	Author	Size	Information
Frontier: Elite 2 (Shareware)	Frontier Developments	470KB	The shareware version of Frontier: Elite 2 is free to download. See the attached readme files for additional help and information on registering. (This is the official release by Frontier Developments.)
Frontier: Elite 2 (Frontiervse)	Frontier Developments	457KB	The Frontiervse version of Frontier: Elite 2 is the latest version of the game, enhanced for easy set up, virtually bug-free and also has had the password protection removed. Included in the pack, as with all other versions other than the Shareware one, are icons to use with the game.
Frontier: Elite 2 (Patched)	Frontier Developments	457KB	This the same as the above version, only it starts you off with a comfortable two million credits. Recommended for absolute beginners.
Frontier: Elite 2 (UK)	Frontier Developments	476KB	The original UK version of the game, with the wormholes 'feature' and other bugs (see Bugs page for more info). This version has also had the password protection removed, and the mining bug rectified.

For DOSBox, get the latest version, which at the current time (February 4th, 2015) is 0.74.

2. Installation

I'm going to assume you know how to run an installer, so go ahead and install DOSBox. VirtualMIDISynth can wait. DOSBox will install under Program Files (x86) on Windows 7, but I prefer to install it to C:\DOSBox as I end up going back to the folder somewhat often. You don't need to keep the version number in the filename if you don't want to.













As for Frontier, go ahead and extract the .zip archive somewhere. Move all of the game files to your C drive. I have a DOS games folder (C:\DOSGAMES) that I put it under, but you can just put in in the C drive under C:\FRONTIER or C:\ELITE2 or some such. Just remember where you put it.



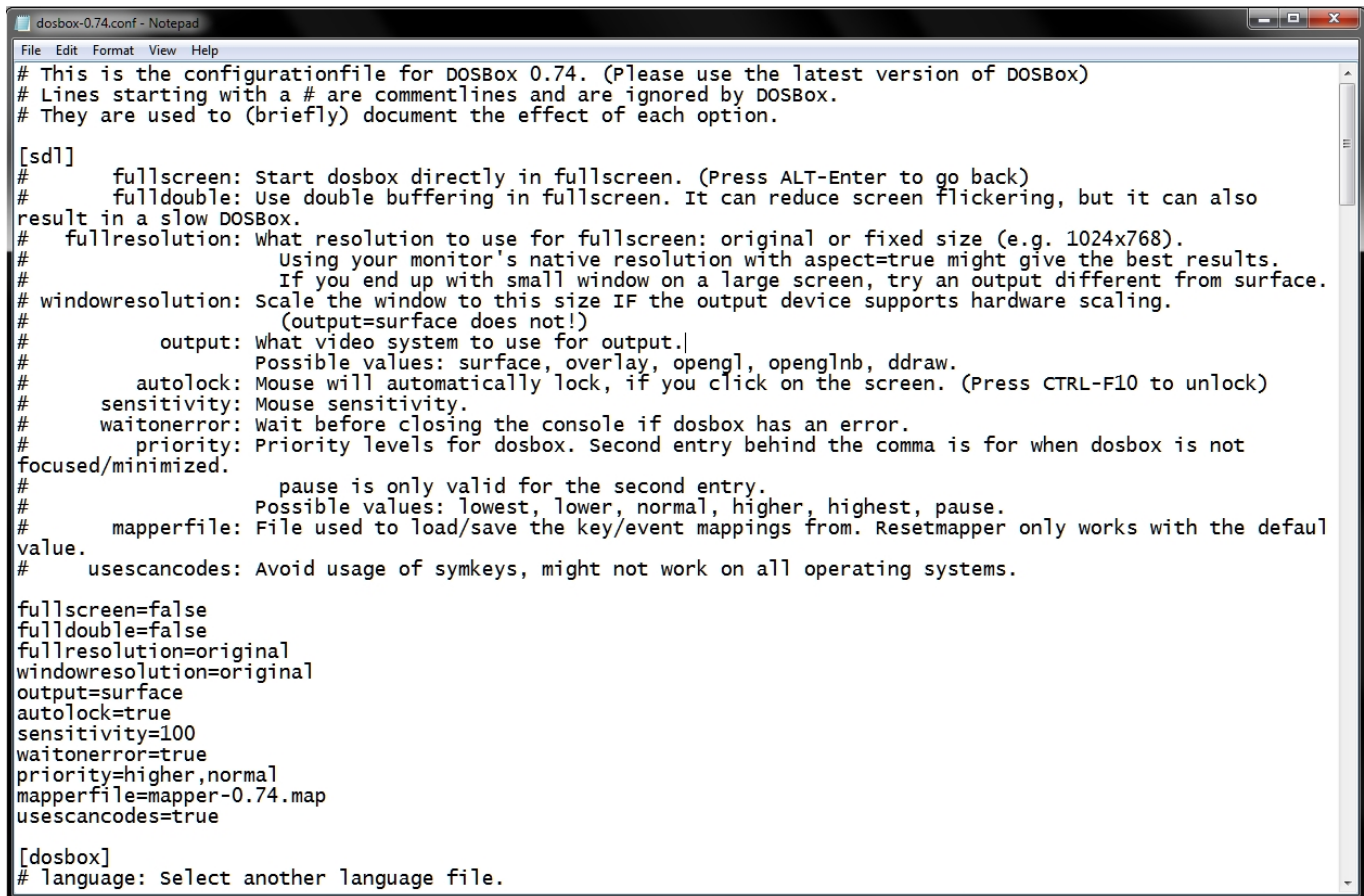
3. Setting Up DOSBox

Once you have those installed, it's time to meddle with DOSBox. DOSBox already has a comprehensive manual, so I won't stop to teach you how to use it. If you need help, they have a very helpful Wiki (http://www.dosbox.com/wiki/Main_Page) which can tell you more than I ever could about how to use it. They even have a copy of the manual on the site that isn't a basic .txt file.

Anyway, go to your DOSBox folder. What you want is the options.

Name	Date modified	Type	Size
 Documentation	1/26/2015 2:03 AM	File folder	
 Video Codec	1/26/2015 2:03 AM	File folder	
 DOSBox 0.74 Manual.txt	5/12/2010 4:52 AM	Text Document	62 KB
 DOSBox 0.74 Options.bat <<<<<<	4/9/2010 2:10 PM	Windows Batch File	1 KB
 DOSBox.exe	5/12/2010 4:55 AM	Application	3,640 KB
 glide.log	2/1/2015 3:09 AM	Text Document	1 KB
 Reset KeyMapper.bat	5/8/2010 3:17 PM	Windows Batch File	1 KB
 Reset Options.bat	5/8/2010 3:17 PM	Windows Batch File	1 KB
 Screenshots & Recordings.bat	4/9/2010 2:10 PM	Windows Batch File	1 KB
 SDL.dll	4/9/2010 2:04 PM	Application extens...	438 KB
 SDL_net.dll	4/9/2010 2:04 PM	Application extens...	13 KB
 uninstall.exe	1/26/2015 2:03 AM	Application	37 KB

Open that up. It will open a text file containing all of DOSBox's options called dosbox-0.74.conf. It should look something like the following:



```
# This is the configurationfile for DOSBox 0.74. (Please use the latest version of DOSBox)
# Lines starting with a # are commentlines and are ignored by DOSBox.
# They are used to (briefly) document the effect of each option.

[sd1]
# fullscreen: Start dosbox directly in fullscreen. (Press ALT-Enter to go back)
# fulldouble: Use double buffering in fullscreen. It can reduce screen flickering, but it can also
result in a slow DOSBox.
# fullresolution: What resolution to use for fullscreen: original or fixed size (e.g. 1024x768).
# Using your monitor's native resolution with aspect=true might give the best results.
# If you end up with small window on a large screen, try an output different from surface.
# windowresolution: Scale the window to this size IF the output device supports hardware scaling.
# (output=surface does not!)
# output: What video system to use for output.
# Possible values: surface, overlay, opengl, openglfb, ddraw.
# autolock: Mouse will automatically lock, if you click on the screen. (Press CTRL-F10 to unlock)
# sensitivity: Mouse sensitivity.
# waitonerror: Wait before closing the console if dosbox has an error.
# priority: Priority levels for dosbox. Second entry behind the comma is for when dosbox is not
focused/minimized.
# pause is only valid for the second entry.
# Possible values: lowest, lower, normal, higher, highest, pause.
# mapperfile: File used to load/save the key/event mappings from. Resetmapper only works with the default
value.
# useescancodes: Avoid usage of symkeys, might not work on all operating systems.

fullscreen=false
fulldouble=false
fullresolution=original
windowresolution=original
output=surface
autolock=true
sensitivity=100
waitonerror=true
priority=higher,normal
mapperfile=mapper-0.74.map
useescancodes=true

[dosbox]
# language: Select another language file.
```

(If you have to scroll left and right to see it all, click “Format” at the top and enable Word Wrap.)

This is the DOSBox config file. If you have no idea what this is or what these things do, go here for an explanation: <http://www.dosbox.com/wiki/Dosbox.conf>

What we’re first looking for is the [cpu] section. DOSBox will default to 3,000 cycles (3 megahertz) when running a program, which is really just not going to be enough. So, what we want to do is find the “cycles=auto” line and change auto to a higher number. A lot of people say 8,000 cycles is recommendable, but these people are **WRONG**. The game is *painfully* slow at 8,000 cycles. It is completely unacceptable. In my experience, the game becomes arguably playable at 10,000+ cycles, but I recommend 20,000+ cycles. Personally, I set it to use max cycles as the game speed doesn’t seem directly tied to CPU speed, so setting it to 100,000 doesn’t make the game insanely fast and unplayable.

```
core=auto
cputype=auto
cycles=20000
cycleup=500
cycledown=500
```

I also recommend setting `cycleup=` and `cycledown=` to 100 at the least. While DOSBox is running, hitting Ctrl+F11 or Ctrl+F12 will decrease or increase CPU cycles, respectively. These values control how many cycles up or down you go with one button press. If it's below 100, it's a percentage of the current number of cycles. Over 100, it's just that number. For Frontier, I find it more convenient to go up or down by 500 cycles at a time.

After that, we want to mess with the scaler. If your hardware supports scaling, this is a life saver. First, scroll back up to the top of the config file and look for the line "`output=surface`." Change surface to something else – I recommend either `overlay` or `opengl`. They all end up being about the same in the end, though. Just use something that is not surface – it does NOT support scaling! I mean, I guess you could just play the game at 320x200, but that's up to you.

Anyway, if you're going to use scaling, make the change I mentioned above and scroll down to `[render]`. The different scalers listed here all do the same thing at their core – they scale things up. 2X scaling will render the game at double resolution (640x400) and 3x at triple res (960x600). These are fine if you have a 16:10 monitor as it is the same ratio as DOS's 8:5 ratio, but if you have a 4:3 display or want to avoid stretching on a 16:9 display, go ahead and enable aspect correction by setting `aspect=true`.

Anyway, go here for a breakdown of default DOSBox scalers: <http://www.dosbox.com/wiki/Scaler>

Once you have picked a scaler, go back up to the top and set a resolution for the game to run in. Set "`windowresolution=`" to some fixed value or keep it at original – it won't matter much so long as you can see the game and the window. "`fullresolution=`" should be set at "`desktop`" or you can set a fixed value for it. Either/or. The game will be letterboxed as need be.

```
frameskip=0
aspect=true
scaler=hq3x
```

Next, we need to think about running the game. If you don't know how to run programs in DOSBox, consult the DOSBox manual. If you're only going to run

DOSBox for frontier, you can add the necessary MOUNT lines to the autoexec section at the bottom of the config file.


```
[autoexec]
# Lines in this section will be run at startup.
# You can put your MOUNT lines here.

MOUNT C C:\DOSGAMES\ELITE2
C:
FRONTIER.EXE
```

If you're going to use DOSBox for other programs, I would recommend you use an alternate config file. The process for that is detailed in the manual and on the Wiki.

4. Running The Game

So, it's time to run the game. Follow standard DOSBox procedure with the MOUNT lines, or you can just drag FRONTIER.EXE onto the DOSBox .exe file. Either/or. Anyway, the game should start up, and you will first be presented with a screen asking for the preferred level of sound support.



```
Please select sound support required:-

1 - Roland LAPC1 compatible sound board
2 - AdLib / SoundBlaster compatible sound board
3 - PC Internal speaker
4 - No sound
```

DOSBox emulates all of these, but let me break it down for you:

Roland LAPC1: MIDI synthesis. Best music by far, especially if you consult the later section on it, but sound effects have problems. Using this mode, I recommend turning the additional sound effects off (engine noise, wind noise, icon beeps).

AdLib: The music is painful to try to listen to like this. It does actually have the full suite of sound effects, though. In this mode, I recommend turning music off entirely.

PC Speaker: I've gotten no music out of it at all, only a small few sound effects. Pass.

No Sound: I wonder what this could do....? (This is what you select when you give up).

I recommend trying AdLib and Roland support, but before you decide on which one you prefer, wait for section 7.

5. How Do I Play This?

Other people have tackled that much better than I ever could. Read some articles on the Frontierverse (<http://www.sharoma.com/frontierverse/index.htm>) or check out the Frontier Fundamentals series by JimPlaysGames over on YouTube (<https://www.youtube.com/playlist?list=PL9E1E1F7AA6193498>).

6. These Controls Are Terrible

Yes, they are.

If you want to change the controls, there is a roundabout way: The DOSBox Keymapper. <http://www.dosbox.com/wiki/Keymapper>

Using that, you can get normal-ish WASD controls. There are no alternate bindings, though, and you cannot rebind mouse controls. You can, however, set up joystick support, which is even compatible with Xbox controllers and other gamepads. There is an arguably better way to set up controllers, though: Xpadder.

Xpadder is formerly freeware program that allows you to bind keyboard and/or mouse inputs to functions on a controller. The creator charges \$10 for the thing as it is now, but the last freeware version is still free and available if you're poor or cheap (I'm the former), though it's not officially supported. Whether you fork over 10 bucks or not, you can use Xpadder if you want to use a gamepad for Frontier. I recommend it over fiddling with the keymapper.



Xpadder:

<http://www.xpadder.com/>

Freeware Xpadder:

http://www.majorgeeks.com/files/details/xpadder_%28last_freeware_version%29.html

7. This Music Sounds Awful

Okay, so, you've hopefully experimented with both MIDI and AdLib support and determined that they both suck. If you like AdLib, there's nothing wrong with that, but I will never understand you. If you don't like the MIDI playback, it's very understandable. You can make MIDI sound better, though, while AdLib really doesn't ever improve. The problem is Microsoft GS Wavesynth and the solution is VirtualMIDISynth.

The default MIDI software on Windows is awful. It does not have all of the features that real MIDI devices had, and it sounds terrible to boot. VirtualMIDISynth is NOT the only MIDI software around, but it's what I'm covering here because it's simple and effective. You should have downloaded it earlier, so go ahead and install it. Once installed, set it as your default MIDI device. You'll likely never go back to GS Wavesynth again.

Once it's installed, though, you probably noticed it saying something about "soundfonts." There is plenty of info on these on their website and on the 'net, but the fact of the matter is you need to download at least one and load it into VMS. Which one? I dunno. It's up to you. Here's a list of them from the VMS page: <http://coolsoft.altervista.org/en/virtualmidisynth#soundfonts>

Of the ones I've tried, I can recommend one small one and one large one. The small one I'll recommend is TimGM6mb, and the large one I always use is Timbres of Heaven, which IMO is closer to a classic Roland card than a lot of others that I've tried. Feel free to try them all, though. I will say that the "Crisis General MIDI" sounds awful, though, and you should probably avoid it. It's a massive 1.3 gigabytes (!) of disappointment.

Anyway, with VMS as your default MIDI device and with a nice soundfont under your belt, you can now experience MUCH better music. Sound effects are bugged, though. Engine noise is a single, drawn-out piano note, and it doesn't seem to be linked to the MIDI device or soundfont. Icon beeps, too, are borked. They play a note that **NEVER ENDS**. That's no joke. It's a single tone that drones on forever. Well, until you close the game out, anyway. Still, it's awful. I just turn on continuous music and I am actually pretty happy with a lack of sound effects, though. You still get alerts for being attacked, though, along with LASER sound effects and missiles and whatnot, so don't think it's completely without sound.