

General Information

Information to get started.

- [Extracting Game Audio](#)
- [Creating Audio Mods](#)
- [Audio File Extensions](#)

Extracting Game Audio

It is recommended to do all of your extracting in the SAME disk drive (ex: C:\)

Extracting Tools

EternalAudioExtractor by proteh - [Download](#)

Exports WEM & OPUS audio from SND files for Windows OS.

EternalAudioExtractorLinux by PowerBall253 - [Download](#)

Exports WEM & OPUS audio from SND files for Linux OS.

Make sure you have at least 2.00 GB of storage if you plan on extracting music.
550 MB for sound effects, 50 MB for voice overs (for each language).

Extraction Instructions

Instructions are for Windows users.

- Extract the contents of **EternalAudioExtractor** somewhere on your machine.
- Launch either "**Extract_All.bat**" or "**Extract_Single.bat**" depending if you want to extract all sound files or from a single directory.
- Copy and paste the filepath of your DOOMEternal installation directory.
(ex: **C:\Program Files (x86)\Steam\steamapps\common\DOOMEternal**)
- Input the name of the **.snd** file you want to extract (if applicable).
- Input the name of the output directory. Make sure the directory is either empty or nonexistent.
- If you are extracting music files, press **[Y]** to enable automatic .ogg conversion.
- If necessary, press **[Y]** again to enable the extraction of unused sound files.
- If everything looks correct, press **[Y]** to extract its contents.
- Press **[Y]** to close the batch script open the output folder in a new window.

Music files must be in the OGG sound format before they can be edited.

Unused game audio (represented only by ID) cannot be referenced in-game.

List of Resources

<u>Resource Name</u>	<u>Information</u>
music.snd	Contains WEM music files for Base Game & DLC1
music_patch_1.snd	Contains WEM music files for DLC2
music_patch_2.snd	Contains WEM music files for Horde Mode
sfx.snd	Contains OPUS sound effects files for Base Game
sfx_patch_1.snd	Contains OPUS sound effects files for DLC1
sfx_patch_2.snd	Contains OPUS sound effects files for DLC2
sfx_patch_3.snd	Contains OPUS sound effects files for post-DLC2
vo_English(US).snd	Contains OPUS voice over files for Base Game & DLC1
vo_English(US)_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_French(France).snd	Contains OPUS voice over files for Base Game & DLC1
vo_French(France)_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_German.snd	Contains OPUS voice over files for Base Game & DLC1
vo_German_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Italian.snd	Contains OPUS voice over files for Base Game & DLC1
vo_Italian_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Japanese.snd	Contains OPUS voice over files for Base Game & DLC1
vo_Japanese_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Polish.snd	Contains OPUS voice over files for Base Game & DLC1
vo_Polish_patch_1.snd	Contains OPUS voice over files for DLC2 and after

vo_Portuguese(Brazil).snd	Contains OPUS voice over files for Base Game & DLC1
vo_Portuguese(Brazil)_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Russian.snd	Contains OPUS voice over files for Base Game & DLC1
vo_Russian_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Spanish(Mexico).snd	Contains OPUS voice over files for Base Game & DLC1
vo_Spanish(Mexico)_patch_1.snd	Contains OPUS voice over files for DLC2 and after
vo_Spanish(Spain).snd	Contains OPUS voice over files for Base Game & DLC1
vo_Spanish(Spain)_patch_1.snd	Contains OPUS voice over files for DLC2 and after

Creating Audio Mods

See [Extracting Game Audio](#) before proceeding.

Instructions are for Windows users.

Audio Editing

Download an audio-editing tool of your choice, such as Audacity - [Download](#)

1. Import the OGG or OPUS files and edit them in your audio-editing tool.
2. Make sure that your edits match the start and end length of the audio track.
3. **SFX & VO:** Convert all of the audio you want to export to OPUS.
(Export Audio -> OggOpus - 64 kbps for high quality)
4. **MUSIC:** Convert all of the audio you want to export to WAV. (32 bit for high quality)

FFmpeg (SFX & VO) - Eternal Mod Injector

You need the FFmpeg extension for Audacity to import/export OPUS audio files - [Download](#)

1. Install **ffmpeg-win-#.#.#.exe** -> Follow the installation instructions
2. Open Audacity -> Edit -> Preferences -> Libraries
3. FFmpeg Library: Locate... -> Browse... -> Find **avformat-55.dll** -> OK

Be sure to export the OPUS file in either mono or stereo depending on the format of the original file.

Sometimes, Audacity will automatically find avformat-55.dll

If the **exe** version does not work, download the **zip option** and extract it into a new folder called **ffmpeg-win-#.#.#** (depending on the version number) and extract all its contents in there. Then attempt to locate FFmpeg.

Wwise Launcher (MUSIC) - Eternal Mod Injector & idStudio

Create an audiokinetic account (use free trial) and install Audiokinetic Launcher - [Download](#)

Install Wwise Version **2022.1.18.8567** for the best experience.

1. Go to **Wwise Launcher** -> **WWISE** -> **Launch Wwise** (64-bit) -> **New** (Project Launcher) -> Provide it a name -> Select **None** (Import assets to project) -> **OK**
2. **Close** (License Manager) -> **Property Editor** (SHIFT + K) -> **Source Settings** -> Default Conversion Settings ... -> Factory Conversion Settings / Vorbis / **Vorbis Quality High** -> **OK** -> **OK**
3. **Audio File Importer** (SHIFT + I) -> Add Files... -> Select your WAV files -> **Open** -> **Import**
(Replace any if needed)
4. **Project** -> Convert All Audio Files... -> Check **Windows** (If it is not already checked) -> **OK**
5. **File Manager** (SHIFT + F1) -> Right Click **Project Folder Directory** -> Open **Containing Folder** -> .cache\Windows\SFX (It is recommended to bookmark this directory)
6. Be sure that the exported **WEM** files end with **_3F75BDB9**

Exported **WEM** files for idStudio SFX end with **_9D0E2A85**

For idStudio mods, SFX & VO need to be converted with Wwise with the **PCM Auto Detect High** Default Conversion Setting. See: <https://wiki.eternalmods.com/books/eternal-idstudio/page/how-do-i-create-idstudio-mods>

Injecting Audio

1. In your DOOMEternal\Mods folder, create a folder called named based on where the file was originally found.
(ex: **music_patch_1**)
2. Copy your converted WEM file(s) in there and make sure they have the same name as extracted files.

(ex: samuelsbase_music_main_heavy_0_0_id#15098487.wem)

3. Run the **EternalModInjector** like normal.

Audio File Extensions

These are the audio file types you will be interacting with.

.ogg

Extracted music files from "music", "music_patch_1", & "music_patch_2" will be converted to this format if they are to be edited.

OGG files **CANNOT** be re-injected into DOOM Eternal.

Example:

`cultist_base_music_main_heavy_0_id#156134790.ogg`

.opus

Extracted sound effect & voice over files from "sfx", "sfx_patch_1", "vo_English(US)", etc will be in this format.

OPUS files **CAN** be re-injected into DOOM Eternal.

Example:

`ammo_bfg_id#373311939.opus`

.wav

Edited music files must be converted into the WAV format before they can be converted into WEM files.

WAV files **CANNOT** be re-injected into DOOM Eternal as music files, but they **CAN** as sound effects & voice overs.

Example:

`cultist_base_music_main_heavy_0_id#156134790.wav`

.wem

After the edited music files have been converted into the WEM format, they **CAN** be re-injected into DOOM Eternal.

Example:

`cultist_base_music_main_heavy_0_id#156134790.wem`

.snd

These contain the audio files. They **CANNOT** be directly modified by a conventional audio editor. Instead, tools are used to extract individual audio files.

Example:

`music.snd`

.pck

These contain the audio resources. They **CANNOT** be directly modified by a conventional audio editor.

However, **Fusion Tools** can directly modify PCK files.

Example:

mus. pck

If a **WEM** file has been exported correctly (Vorbis Quality High), they should have "**_3F75BDB9**" before its WEM extension. You will need to delete the "**_3F75BDB9**" in the WEM file's name before you can inject it into DOOM Eternal.

PCK files modified by **Fusion Tools** are not supported by **DEternal_loadMods**, which is a program that allows certain mods type to be injected.

See **Creating Audio Mods** for more information.