

Latest DJ Hero customs guide: [☰ DJ Hero Custom Chart Guide and Info](#)

The latest DJ Hero guide refers to new tools that make adding customs much easier!

If you really want to read an old version of the guide, scroll to the next page.

DJ Hero Custom Chart and Modding

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Join the Discord server! We can provide a ton of help here: <https://discord.gg/hqhExK4>

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Requirements

- DJing requires a suitable DAW (Digital Audio Workstation)
- Charting requires a PC and Moonscraper.

- Installing & playing custom charts requires the DJ Hero 1 and/or 2 disc, a DJ Hero turntable, and either a jailbroken/modded console or an emulator
 - Note that we can't make custom charts for DJ Hero 2 yet, though we can install unreleased charts from the [DJ Hero 2 Alpha](#).

DJing

- FL Studio and using the Gross Beat plugin is the most used and convenient option. However, it is possible to use even Virtual DJ, Ableton Live, or several other DAWs.

Charting

Thanks to PikminGuts92's update to Sharktooth allowing MIDI-to-fsgmub conversion, we can now chart DJ Hero as MIDI files using a DAW, such as REAPER which is popular in the Rock Band community.

- REAPER
 - DAW for charting.
 - Not free but has an unlimited free trial.
 - Download version 4.22: <https://www.reaper.fm/download-old.php?ver=4x>
 - REAPER templates, MIDI color map, MIDI note names:
 - <https://drive.google.com/open?id=1ttK9UGyoVSuLnopUjiXakJd5Im-CJSOZ>
 - Open the template in REAPER
 - Open the MIDI file to get the MIDI editor
 - How DJH charts look in REAPER:
 - <https://www.youtube.com/watch?v=wAjlfp2l74k>
 - How DJH2 charts look in REAPER:
 - <https://www.youtube.com/watch?v=FrTsLmf0S5Y>
- PikminGuts92's Sharktooth
 - Convert .mid to DJH .fsgmub/.xmk and vice versa.
 - Experimental release with DJH2 support
 - <https://ci.appveyor.com/project/PikminGuts92/sharktooth/builds/25639816/artifacts>
 - Stable release
 - <https://github.com/PikminGuts92/Sharktooth/releases>
- Shockdude's DJHTools
 - Tools to convert MP3 stems into FSB files, and DJH charts to CSV for advanced chart editing.
 - Be sure to read the README files.
 - Github: <https://github.com/shockdude/djhtools>

- Direct download:
<https://github.com/shockdude/djhtools/archive/master.zip>
- Requires Python 3.7: <https://www.python.org/downloads>

Important notes about BPM and chart releases

DJ Hero 1 fsgmub files do not include BPMs; the BPM is stored in a separate “TrackListing.xml” file.

When converting a DJ Hero fsgmub to .chart or .mid, you will need to manually edit the BPM.

DJ Hero 2 xmk files do include BPMs and tempomarkers, which should be correctly handled by the Experimental Sharktooth release. However, the BPM must still be correctly specified in the TrackListing.xml.

The BPM **must** be included with a custom chart release, e.g. in a README.txt, otherwise the user won’t know what BPM to use in their TrackListing.xml.

A DeckSpeedMultiplier value is important as well.

Charting - old method

Right now we chart using Moonscraper, a Guitar Hero charting program we made to work with DJ Hero.

- Moonscraper
 - <https://github.com/FireFox2000000/Moonscraper-Chart-Editor-Latest-Official-Release>
- Shockdude’s DJHTools
 - Tools to convert MP3 stems into FSB files, and Chart files into FSGMUB, to play in DJ Hero.
 - Be sure to read the README files.
 - Github: <https://github.com/shockdude/djhtools>
 - Direct download:
<https://github.com/shockdude/djhtools/archive/master.zip>
 - Requires Python 3.7: <https://www.python.org/downloads>
 - Video preview: <https://www.youtube.com/watch?v=tY6Il2m5JPc>

DJ Hero Note → Chart reference

In Moonscraper, DJ Hero requires the use of 4 Guitar instruments in order to fit all of the note types that DJ Hero uses.

Video illustration of these notes in action: <https://www.youtube.com/watch?v=tY6Il2m5JPc>

Guitar - Crossfader, Euphoria, Red Lane

G = crossfader left/green

R = crossfader center

Y = crossfader right/blue

B = euphoria

O = red tap

crossfades should span the entire song, and there shouldn't be any gap between crossfades.

Guitar Coop - Green Lane

G = green scratch anydirection

R = green directional scratch down

Y = green directional scratch up

B = green scratch zone (the rectangle behind scratches. all scratches need a scratch zone)

O = green tap

Bass - Blue Lane

G = blue scratch anydirection

R = blue directional scratch down

Y = blue directional scratch up

B = blue scratch zone (the rectangle behind scratches. all scratches need a scratch zone)

O = blue tap

Rhythm - Effects

G = green effects

R = freestyle samples

Y = all lanes effects

B = blue effects

Installing Custom Songs

Assuming you already have a jailbroken/modded console or Dolphin set up, and all the DJH files extracted in a folder. Otherwise, see the Appendices.

It'd be super nice if we had a GUI program to manage all this easily (a GHTCP equivalent, DJHCP?), but until then, this is gonna be super technical lol...

Make a backup of all files that will be modified/replaced. Backup the entire game if you can.

Notepad++ is a good recommended text editor for editing the TrackListing.xml.

<https://notepad-plus-plus.org/>

A custom song should include at least a FSB file, a chart file (either .xmk or .fsgmub), and a README containing the chart's BPM and DeckSpeedMultiplier. If any of these are missing, complain to the charter.

Formatting TrackListing.xml for easier editing

Editing TrackListing.xml is required for setting a custom song's BPM, DeckSpeedMultiplier, and more.

The file is compacted and difficult to read, so the first time we use it we should reformat it to look nicer and be easier to edit.

- **Backup** TrackListing.xml, then open it in Notepad++.
 - DJ Hero 1: Common/Audio/Audiotracks/TrackListing.xml
 - DJ Hero 2: [Wii, PS3, X360]/Audio/Audiotracks/TrackListing.xml
- Go to Plugins > Plugins Admin
- Click the checkbox next to "XML Tools", then click Install. Click "yes" when asked.
- When Notepad++ reopens, go to Plugins > XML Tools > Pretty print (XML only - with Line Breaks)
- The file should become much easier to read.
- Save TrackListing.xml

Replacing songs in DJ Hero 1

If the chart is not already in FSGMUB & FSB format, you will need to use the converter tools. See the [Charting](#) section for more info.

Edit the TrackListing.xml chart parameters (BPM, deck speed)

- Look for Common/Audio/Audiotracks/TrackListing.xml
- **Backup** TrackListing.xml before making any edits.
- Open TrackListing.xml and find a song to replace. E.g. DJH017 (the song ID for Ain't No Love vs Fuzz) is convenient since it's the first song in the quicklist.
- Edit <BPM> to be the correct BPM of the new song
 - DJ Hero 1 does NOT support varying BPMs.
- Edit <DeckSpeedMultiplier> if needed. For charts with dense scratches, between 3-4 is good. For slower songs, between 2-3 is good.
 - Difficulties 0-4 represent Beginner/Easy/Medium/Hard/Expert, respectively.
- Optional:
 - Edit <Complexity> to something between 0 and 4, where 4 is the most intense difficulty. Or just set it to 0 to keep the song at the top of the quicklist.
 - Edit <TrackDuration> to be the song's length in seconds.

Replace the chart file.

- Chart location: Common/Audio/Audiotracks/[DJHXXX]/SinglePlayer/Medium/
 - E.g. for DJH017: Common/Audio/Audiotracks/DJH017/SinglePlayer/Medium/

- **Backup** and replace one of the .fsgmub files with your custom .fsgmub file
 - Expert chart = Markup_Main_P1_4.fsgmub
 - The other Markup_Main_P1 charts represent the other difficulties.

Replace the audio.

- Audio location: [Wii, PS3, X360]/Audio/Audiotracks/[DJHXXX]/SinglePlayer/Medium/
 - E.g. for DJH017 in the Wii version:
Wii/Audio/Audiotracks/DJH017/SinglePlayer/Medium/
- **Backup** and replace AudioTrack_Main.fsb with your custom fsb

Note: other folders (e.g. folders with difficulty names like Easy, Hard, Expert) and files (e.g. CSV files) are not important.

Replacing songs in DJ Hero 2

For installing both customs and songs from the [DJ Hero 2 Alpha](#).

Look for the AUDIO folder - its location varies slightly by game version.

- Wii: DATA\files\Wii\AUDIO
- 360: X360\AUDIO
- PS3: PS3_GAME\USRDIR\PS3\AUDIO

Edit the TrackListing.xml chart parameters (BPM, deck speed)

- Should be directly in the AUDIO folder.
- **Backup** TrackListing.xml before making any edits.
- Open TrackListing.xml and find a song to replace. E.g. DJH2182 (the song ID for The Message vs Jungle Boogie) is convenient since it's the first song in the quicklist.
- Edit <BPM> to be the correct BPM of the new song
- Edit <DeckSpeedMultiplier> if needed. For charts with dense scratches, between 3-4 is good. For slower songs, between 2-3 is good.
 - Difficulties 0-4 represent Beginner/Easy/Medium/Hard/Expert, respectively.
- If your track has Freestyle Samples (FSS.fsb), replace/add <FSSampleStreamAss> as required.
 - E.g. for Alpha songs, copy from the Alpha's tracklisting.xml for that song.
- Change <HasVocalMarkup> to 0, unless your song has a vocal chart (Vocals.xmlk) in which case set it to 1.
- Optional:
 - Edit <Complexity> to something between 0 and 100, where 100 is maximum intensity. Or just set it to 0 to keep the song at the top of QuickPlay.
 - Similar for <TapComplexity>, <CrossfadeComplexity>, and <ScratchComplexity>
 - Edit <TrackDuration> to be the song's length in seconds.

- Edit <PreviewLoopPointStartInBars> and <PreviewLoopPointEndInBars> to adjust the song's preview in QuickPlay.

Replace the chart file and audio

- In the AUDIO folder, open the folder for the song ID you want to replace (e.g. DJH2182)
- **Backup** and replace one of the .xmk files with your custom .xmk file.
 - Expert chart = DJ_Expert.xmk
 - The other DJ charts represent the other difficulties.
- **Backup** and replace DJ.fsb with your custom audio .fsb file
- If you have FreeStyle samples, **backup** and replace FSS.fsb with your custom FSS.fsb.

Running the game

- 360, PS3: just load the modified game like an ordinary ripped game
- Dolphin: open DATA/sys/main.dol
- Wii:
 - Rebuild the ISO using WIT.
 - Where `djh_folder_name` is the folder containing the folders DATA & UPDATE:
 - `wit copy (djh_folder_name) (output_file.wbfs)`
 - Or better yet set up Riivolution (an on-the-fly game patcher)
 - [DJ Hero Riivolution Package](#) (please read the readme.txt file for more details)

Advanced Customs and Modding

Again it'd be super nice if we had a convenient "DJHCP" but until then...

Editing strings (titles, artists, DJs)

DJ Hero uses text IDs which get replaced by the real text strings in-game depending on the game's region/language.

The textIDs themselves are used in various places, e.g. TrackListing.xml for editing song names & artists.

djh_text_csv_convert.py from djhtools: <https://github.com/shockdude/djhtools>

- Convert a DJ Hero TEXT folder to CSV files and back for easy editing.
 - **DO NOT OPEN THE CSVs IN MS EXCEL**
 - MS Excel can't handle special characters in CSV.
- Edit existing text IDs, add new textIDs by adding new rows to the CSV

- Direct download: <https://github.com/shockdude/djhtools/archive/master.zip>
- Requires Python 3.7: <https://www.python.org/downloads>

Adding instead of replacing songs

TODO

Viewing/Editing FAR files

- ArchiveExplorer - for viewing FAR files without extracting them entirely
 - <https://drive.google.com/open?id=17tLjaPe6ltrFAETqO1yZyfrMkElsiV7k>
 - Source code: <https://github.com/maxton/GameArchives>
- QuickBMS - for editing & repacking FAR files
 - <http://aluigi.altervista.org/quickbms.htm>
 - Also download the “Djhero Far” script on the same page
 - Or get it directly: http://aluigi.altervista.org/bms/djhero_far.bms
 - **Backup the FAR file before making any changes**
 - Extract: `quickbms.exe djhero_far.bms [far_file]`
[output_folder]
 - Edit the contents of the output_folder
 - Do not add or remove files from this folder! Only edit them.
 - Repack: `quickbms.exe djhero_far.bms [far_file]`
[output_folder]
 - Where the far_file is the **original** FAR file - **make sure you have a backup!**

Editing setlists

- Setlists are contained in the DJHero.FAR file
 - Located in [Wii, X360, PS3]\FAR\DJHero.FAR
- See [Viewing/Editing FAR files](#)
- **Make a backup of DJHero.FAR**
- Extract DJHero.FAR
- Open xml\frontend\setlisting.xml
- Edit and Save
- Repack DJHero.FAR

Editing textures

TODO automated scripts for texture editing

- TextureFinder: useful for identifying DXT1 vs DXT5
 - <https://forum.xentax.com/blog/?tag=texturefinder>
 - Open IMG file, set Shift=20, select DXT1 with “a” checked or DXT5.

- Width is usually 256, 512, 1024, or 2048.
- HxD: hex editor
 - <https://mh-nexus.de/en/hxd/>
- Some textures are in FAR files; see [Viewing/Editing FAR files](#).
 - E.g. gameplay textures are in [Wii, X360, PS3]\FAR\SinglePlayerHUD.FAR
- **Make a backup of all .IMG and .FAR files that you plan to edit.**
- DJ Hero .IMG files have a 20 byte header, the rest is image data.
 - Bytes 0-1: image width, big-endian
 - Bytes 2-3: image height, big-endian
 - TODO document the rest of the header
- Wii texture format: some are CMPR, some are RGB5A3 with 5 mipmaps
 - Assumption: .IMG files in .FAR files are RGB5A3 with 5 mipmaps, all other .IMG are CMPR.
 - Get Wiimm's SZS toolset and use wimgt to convert images to CMPR/RGB5A3
 - <https://szs.wiimm.de/>
 - Decode CMPR: .wimgt.exe decode --no-m -x CMPR image
 - Encode CMPR: wimgt.exe encode --n-mm 0 -x CMPR image.png
 - Decode RGB5A3: wimgt.exe decode --no-m -x RGB5A3 image
 - Encode RGB5A3: wimgt.exe encode --n-mm 5 -x RGB5A3 image.png
 - To decode a .img
 - Create a .png with the same dimensions as the .img
 - Use wimgt to encode the .png to a texture.
 - Open the .img file and the wimgt-encoded texture in HxD, and copy the data bytes from the .img to the texture.
 - Decode the edited image with wimgt to dump the texture.
 - To encode a .img
 - Use wimgt to encode a .png to a texture
 - Open the .img file and the encoded texture in HxD, and copy the data bytes from the texture to the .img.
- Dolphin Texture Dumping: A good alternative if you are playing entirely in Dolphin.
 - Graphics>Advanced>"Dump Textures" under Utility
 - This will dump them to [Dolphin]>User>Dump>Textures
 - The folders will be SWAE52 for DJ Hero 1 and SWBE52 for DJ Hero 2
 - ONLY TOGGLE THIS AFTER THE INTRO CUTSCENES, AT LEAST FOR DJ HERO 1. You can enable it prior but it will dump garbage textures from said cutscene, so work at your own risk
 - This method will dump every texture that loads in, almost always in PNG format, to the folder for the game you are dumping from.
 - Most textures will dump five mipmaps. You may not need lower ones if you run at a high internal res, but edit them all for best results.

- Some Textures have color mapping, such as the gem textures in DJ Hero 2, or the Lane glow textures. Attempts to edit the color of these won't work out in game, but you can change the look freely.
 - Color Editing of these sections is possible via XML editing.
 - You may scale up or down textures, making them bigger or smaller depending on what you want, so for the mipmaps if you don't care, you can just load them all in at the same size (at the cost of performance)
 - Filenames **must** stay the same or they won't load.
- Once you are done dumping textures, toggle off the Dump Textures option.
- Move edited textures to (Dolphin)>User>Load>Textures>SWAE52 or SWBE52 depending on which game you've modified
- Toggle the "Load Custom Textures" setting next to "Dump Textures"
- PS3 texture format: some are DXT1, some are DXT5 with 6 mipmaps
 - Assumption: .IMG files in .FAR files are DXT5 with 6 mipmaps, all other .IMG are DXT1.
 - GIMP can save DXT1 and DXT5 images (save as .dds)
 - <https://www.gimp.org/>
 - To decode a .img
 - Use GIMP to create a .dds with the same dimensions as the .img
 - Open the .img file and the .dds file in HxD, and copy the data bytes from the .img to the .dds.
 - Open the edited .dds in GIMP without loading mipmaps
 - Save the texture as .png
 - To encode a .img
 - Use GIMP to save the image as .dds, DXT1 without mipmaps or DXT5 with mipmaps
 - Open the .img file and the .dds file in HxD, and copy the data bytes from the .dds to the .img.
- 360 texture format: same as PS3 but every other data byte is swapped
 - Use a script to swap the .IMG bytes (TODO)

Appendix: Jailbreaking/Modding your console

- Wii:
 - [Letterbomb](#) (Original Wii)
 - [WUPhax](#) (vWii on Wii U)
 - [Smash Stack](#) (All Wii/vWii versions)
- PS3:
 - If an official FW newer than 4.84 appears, DO NOT UPDATE.
 - All current exploits as of May 11, 2019 require [4.84 Hybrid FW \(HFW\)](#).
 - [PS3Xploit Flash Writer](#) - Install Custom FW (CFW) on Phats and older Slims
 - [Tutorial on Reddit](#)

- (NEW) [PS3HEN](#) - enable homebrew on all PS3s including Super Slims.
- Xbox 360: (JTAG or RGH)
 - [“Everything You Need To Know About Xbox 360 Modding” guide on Reddit.](#)

Appendix: Ripping a copy of the game and extracting the files

- Wii: (e.g. CleanRip, WIT)
 - https://wiki.dolphin-emu.org/index.php?title=Ripping_Games
 - Copy ripped game to your PC (e.g. SD card, external hard drive, flash drive, FTP, etc.)
 - Extract game files using WIT: <https://wit.wiimm.de/wit/>
 - Download: <https://wit.wiimm.de/download.html>
 - Extract WIT, copy the ISO to the “bin” folder
 - Open a command prompt in the “bin” folder
 - One way to do this is to open the bin folder in Explorer, hold shift, right-click an empty space in the folder, select “Open Command Prompt window here” or “Open PowerShell Window here”
 - Run this command:
 - `.\wit extract (djh_iso_filename) (djh_folder_name)`
 - Move the ISO and the new djh_folder to a convenient location.
 - Alternative Easier Method with Dolphin (Unable to rebuild iso, you’ll be unable to play it natively on a Wii, but Dolphin will be just fine.)
 - Under Dolphin’s Config settings, point the game towards the folder where your DJ Hero ISO is stored
 - In the main window, right click DJ Hero and click on Properties
 - Navigate to “File System”
 - Right click disc, click “Extract Entire Disc”. Put the files into their own folder.
 - The game’s files are in DATA\files.
 - Everything else is Wii-specific data; don’t delete them.
- PS3: rip with CFW & Multiman, or with a compatible blu-ray drive.
 - <https://rpcs3.net/quickstart>
 - <https://old.reddit.com/r/ps3homebrew/wiki/ripping>
 - Copy ripped game to your PC (e.g. external hard drive, flash drive, FTP, etc.)
 - The game’s files are in PS3_GAME\USRDIR\PS3.
 - Everything else is PS3-specific data; don’t delete them!
- Xbox 360:
 - Without modding: https://old.reddit.com/r/xenia/wiki/how_to_rip_games
 - With JTAG/RGH: <https://old.reddit.com/r/360hacks/wiki/ripping>
 - Copy ripped game to your PC (e.g. external hard drive, flash drive, FTP, etc.)

- The game's files are in the X360 folder.
 - Everything else is 360-specific data; don't delete them!

Ideal state: all DJ hero files are extracted to a folder where it is easy to replace files.

Extracting the DJ Hero 2 IMG

DJ Hero 2 keeps all of its game files inside an IMG file. To edit the files (install custom songs, other mods), you will need to extract the .IMG file.

Trivia: the IMG file was originally believed to be an effective DRM to prevent modding. However, GHFear discovered that the game runs perfectly fine with the .IMG file extracted. The reason for the .IMG file is believed to have to do with load times.

Backup your original DJH2 game rip before proceeding.

- Download ArchiveExplorer:
 - <https://drive.google.com/open?id=17tLjaPe6ltrFAETqO1yZyfrMkEIsiV7k>
 - Source code: <https://github.com/maxton/GameArchives>
- Use ArchiveExplorer to open DISC0.IMG, or DISC0.IMG.part0, depending on your game version.
- Drag-Select all the files, right-click them, and Extract selected items to the same folder as the .IMG file
- Close ArchiveExplorer, and **backup or delete** the .IMG file.
- Wii-only
 - Delete DATA\align-files.txt if it exists
 - To rebuild an iso/wbfs for playing on a Wii console, use WIT:
 - <https://wit.wiimm.de/wit/>
 - Download: <https://wit.wiimm.de/download.html>
 - Extract WIT, copy the extracted game folder to the "bin" folder.
 - Open a command prompt in the "bin" folder
 - One way to do this is to open the bin folder in Explorer, hold shift, right-click an empty space in the folder, select "Open Command Prompt window here" or "Open PowerShell Window here"
 - Run this command:
 - `.\wit copy (djh_folder) dj_hero_custom.wbfs`
 - Move the new custom WBFS ISO and the djh_folder to a convenient location.
- Test that the game still works by loading it on console/emulator.

Appendix: Emulators

Assuming you've ripped a copy of your DJ Hero game

- Wii: Dolphin (only emulator with full compatibility with DJH right now)
 - <https://dolphin-emu.org/>
 - Supports Wii turntables natively with Wiimote.
 - Supports 360 turntables with effort:
<https://forums.dolphin-emu.org/Thread-dj-hero-turntable-xbox-360-platter-fix>
 - Does not support PS3 turntables (crossfader not detected)
- PS3: RPCS3 (turntable not supported yet)
 - <https://rpcs3.net/>
- 360: Xenia (too early, DJH crashes in-game, turntable untested)
 - <https://xenia.jp/>

Appendix: DJ Hero 2 Alpha

Thanks to hentaiphd for bringing the DJ Hero 2 Alpha to our attention.

Download: <https://archive.org/details/dj2-alpha>

The alpha is only playable on XBOX 360 devkits. However, the alpha songs themselves can still be installed in the released DJ Hero 2.

The alpha contains FSB files that only work on XBOX 360; for Wii/PS3, you will also need these converted FSB files: <https://drive.google.com/open?id=1z9J1gboTNL4L9SrufHI3Zmuqcte1awAo>