

Clone Hero Manual

If you have any questions, feel free to drop by the [Clone Hero Discord server](#)'s #help-line channel.

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Windows Specific Instructions

Installation

Extracting the files

Extract all of the files from `clonehero-win64.7z/clonehero-win32.7z` using a program such as [7-Zip](#). Make sure that you aren't running the game directly inside of the .7z archive, that causes problems.

If you see this readme inside a folder along with a `Clone Hero` executable file and a `Clone Hero_Data` folder, you've successfully installed the game!

Updating

To update the game, delete the following files and folders before extracting the new files from the download. Don't be concerned if some are not present, you only need to remove the ones that are.

- `Clone Hero_Data`
- `MonoBleedingEdge`
- `Clone Hero.exe`
- `UnityCrashHandler64.exe`
- `UnityPlayer.dll`
- `WinPixEventRuntime.dll`

Usage

Run the `Clone Hero` executable and away you go. Place your song files in the Songs folder. (If you don't see it, press Scan Songs in Settings > General or make it yourself.)

AppData Files

The song cache, your scores and profiles, and the game log are stored here:

`C:\Users\<username>\AppData\LocalLow\srylain Inc_\Clone Hero`

If you ever find that your songs have had all their metadata scrambled around, or are otherwise having issues involving song scanning or metadata, try deleting `songcache.bin` and then rescanning songs.

The game log is also stored here, if you need it for any troubleshooting or bug reporting purposes.

File Permission Issues

If the game starts and the menu text is missing, or if your songs aren't scanning, you've likely installed CH to a location that has improper file permissions for CH (such as Program Files or Downloads), and you'll need to move CH somewhere else that doesn't require special permissions (such as C:\Games).

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Mac Specific Instructions

Installation

Download and open `clonehero-mac.dmg`, and drag `Clone Hero.app` into the Applications shortcut. Then launch the game. This will automatically create the required files and folders for songs, custom backgrounds, and highways.

Usage

Launch `Clone Hero.app` and away you go. See below for adding songs.

Custom Content Installation

For the Mac version of the game, custom content is located in a separate directory from the game installation:

`~/Library/Application Support/com.srylain.CloneHero`

(This folder will be hidden by default, so we recommend using Command + Shift + G, pasting in the above location, and pressing Go.)

In this directory, there are two items of importance:

1. Custom folder - This is where any custom backgrounds or highways can be placed.
2. Songs folder - This is the default song directory. You can place your custom songs here.

External Files

The song cache, your scores, and your profiles are also stored in the above location. If you ever find that your songs have had all their metadata scrambled around, or are otherwise having issues involving song scanning or metadata, try deleting `songcache.bin` and then rescanning songs.

If you need to access your game log for any troubleshooting or bug reporting purposes, it will be stored in `~/Library/Logs/Unity`.

Controllers

PS3 and Rock Band Wii guitars are the simplest controllers to get working on a Mac, as they have USB dongles which don't require a custom driver. If you want a wired guitar, a PS2 or Wii guitar used via a wired controller adapter is your best option.

Raphnet Technologies makes the best adapters for both Wii guitars and PS2 guitars. You can find these products on [their website](#).

Xbox 360 controllers do not work on macOS by default, in order to get them working you need to download and install [this driver](#). (Doesn't work on macOS 11 "Big Sur", including Apple Silicon devices, unfortunately.)

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Linux Specific Instructions

Installation

Extract the tar.gz package into a folder. To extract the file from a terminal you can run this command from within the folder the package was downloaded to:

```
$ tar -xf ./clonehero-linux.tar.gz
```

You can also extract the tar file from a GUI depending on your desktop environment by opening it in whatever package extractor you have.

Next you will have to give the game executable permissions. Open a terminal and run the following command within the folder the game files have been extracted to:

```
$ chmod u+x ./clonehero
```

Usage

Double-click the `clonehero` file, or start a terminal in the game folder and run `./clonehero`.

External Data Path

The song cache, your scores and profiles, and the game log are stored here:

```
~/config/unity3d/srylain Inc_/Clone Hero/
```

If you ever find that your songs have had all their metadata scrambled around, or are otherwise having issues involving song scanning or metadata, try deleting `songcache.bin` and then rescanning songs.

The game log is also stored here, if you need it for any troubleshooting or bug reporting purposes.

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General Help and Information

Game Data Paths

Clone Hero saves some game data into a separate folder on your system:

Windows:

```
%USERPROFILE%\AppData\LocalLow\srylain Inc_\Clone Hero
```

Mac:

```
~/Library/Application Support/com.srylain.CloneHero
```

Linux:

```
~/.config/unity3d/srylain Inc_/Clone Hero/
```

On Mac, this folder will be hidden by default, so we recommend using Command + Shift + G, pasting in the above location, and pressing Go.

If you ever switch to another computer, you can copy over your scores and profiles by copying the `scores.bin` and `profiles.ini` files from this directory to the same location on the new computer. (If you switch platforms, place it in that platform's corresponding location.)

Game Log Files

The game log files are important if you need to report a bug, or figure out an issue with your system regarding the game. These are located in different paths on each platform.

Windows

```
%USERPROFILE%\AppData\LocalLow\srylain Inc_\Clone Hero
```

Mac

```
~/Library/Logs/Unity
```

Linux

```
~/.config/unity3d/srylain Inc_/Clone Hero/
```

Songs

Songs are not scanned in automatically. If you add or remove any songs, you must go to Settings > General and press Scan Songs for changes to take affect.

If you see the Bad Songs counter increase during song scanning, you can view `badsongs.txt` to see what songs are bad and why. On Windows and Linux, it will be created in your CH folder. On Mac, it will be created in the `~/Library/Application Support/com.srylain.CloneHero` directory.

Settings File

The `settings.ini` file holds all of your game settings, and is also used to add additional song paths for your custom songs.

For adding custom Song paths, you must add a new path entry into the `settings.ini` file. The path lines should be numbered numerically like the following example, and be placed within `settings.ini` file under the `[Directories]` section header.

```
[Directories]
path0=C:\Users\Mark\Songs      Windows Example
path1=/home/Mark/Songs        Linux example
path2=/User/Mark/Songs        Mac Example
...
pathX= <X can be any number >
```

Controls

Keyboard default controls:

Green	A
Red	S
Yellow	J
Blue	K
Orange	L
Strum Up/Down	Up/down arrow keys
Start/Pause	Enter
Select/Star Power	H

These can be changed by pressing Space on the main menu.

Xbox 360 guitars should work automatically on Windows 10 and Linux. To use them on Windows 7, download [these drivers](#).

To use them on Mac, download [these drivers](#). (Doesn't work on macOS 11 "Big Sur", including Apple Silicon devices, unfortunately.)

Most other guitars/controllers will need to be mapped, see below.

Control Remapping

If you find that your controller isn't working, or if you want to change your controls, press Space on your keyboard on the main menu to open the control mapper. It should be relatively self-explanatory. If you can't click on the buttons, you can use the arrow keys and Enter on a keyboard to control it as well.

Click on the Calibrate button to calibrate the controller's axis inputs, such as analog sticks, tilt, or whammy. All available axes will be listed, click on one to view it. The gray arrow on the bottom of the view box is the raw input, the red line is the zero point, the red box is the deadzone, and the white arrow at the top is the translated input that the game uses.

If your whammy bar isn't working properly in-game, select it in this menu and click the Calibrate button, then follow the instructions on-screen.

Controllers

A large amount of controllers work out of the box, either automatically or after mapping their controls. Below are the exceptions:

GH Wii Guitars

Wii GH guitars and drums used via a Wiimote over Bluetooth don't work natively on Windows or Mac, but there are programs to use them anyways.

On Windows, you can use [WiitarThing](#).

On Mac, you can use [OSCulator](#) (paid, w/free trial).

On Linux, you should be able to pair it via Bluetooth and have it work natively. If you're on an older kernel without wiimote support, you can try [this guide](#).

If you don't have Bluetooth on your PC, a USB Bluetooth receiver such as [this one](#) or [this one](#) will work to add Bluetooth support.

If you want to make your wiitar/wiidrums wired, or don't want to/can't use WiitarThing or OSCulator, you can use the [Raphnet Classic Controller adapter](#). If you're feeling crafty, you can also [make an adapter with an Arduino](#).

NOTE: Wii-USB adapters made by Elecom and Mayflash do not work. Currently the only adapters properly supporting Wii guitars/drums are the one from Raphnet and Arduino based solutions.

PS2 Guitars

Whether or not a PS2 guitar will work depends on your adapter. Unfortunately at the time of writing this, most PS2 adapters either don't work with guitars, or don't work well with them.

Here are the links to adapters we can recommend:

[Kebidu PS2 adapter](#) (whammy may not work)

[Raphnet PS2 adapter](#) (100% support)

Your mileage with other adapters will vary.

Alternatively, if you're feeling crafty, you can also [make an adapter with an Arduino](#).

On PS2 guitars, tilt is a button, not an axis, so map it to `Tilt Axis +` instead of `Tilt Axis`.

Guitar Hero Live Guitars

To play with a Guitar Hero Live guitar, you need a dongle that works with your device. Not all the dongles work on all devices at the time of writing this (most require custom drivers, only some of which have been made), you can see up-to-date specifics in [this spreadsheet](#).

Here's a basic rundown of what's currently usable on which platform:

Windows 10:

- Xbox 360 dongle, requires driver forcing via Device Manager (see [this gif](#). If it doesn't appear as an Xbox 360 controller afterwards, follow [this workaround](#) in the spreadsheet linked above.)
- PS3/Wii U dongle, requires [GHLtarUtility](#).
- iOS guitar, requires [GHLtarUtility](#).

Windows 7:

- PS3/Wii U dongle, requires [GHLtarUtility](#) Lite.

Mac:

- None are usable at this time.

Linux:

- Xbox 360 dongle, plug and play.
- PS3/Wii U dongle, supported in the Linux 5.11 kernel. If you're on an older kernel version, you can use the [hid-ghlive-dkms kernel module](#) for it.

Once your guitar is set up and mapped in-game, make sure to set your profile's Controller setting to 6-fret Guitar.

Modifiers

There are various modifiers available to modify songs:

Guitar

Precision Mode - Uses a smaller hit window that shrinks as the notes get faster.

All Strums- Turns all notes into strum notes.

All HOPO's - Turns all notes into HOPO notes.

All Taps - Turns all notes into tap notes. Recommended for keyboard players.

All Opens - Turns all notes into open notes.

Drunk Mode - Changes how infinite frontend works to make HOPOs and taps easier, and also allows anchoring in both directions.

HOPO's to Taps - Turns all HOPO notes into tap notes.

Mirror Mode - Mirrors the note chart without mirroring the strikeline.

Note Shuffle - Randomizes the note placements. The shuffled chart will be the same every time.

Lights Out - Completely hides all the highway elements.

Modchart Full - Hides all the highway elements except for the strikeline, multiplier, and star power meter. Use this or Modchart Lite when playing a modchart.

Modchart Lite - Hides the highway image, notes, and strings.

Modchart Prep - Hides everything but the notes, multiplier, and star power meter.

Drums

Precision Mode - Uses a smaller maximum and minimum hit window limit.

2x Kick - Enables kicks marked as Expert+.

No Kick - Removes kick notes.

Kick Only - Turns all notes into kicks.

Mirror Mode - Mirrors the note chart without mirroring the strikeline.

Randomizes the note placements. The shuffled chart will be the same every time.

Lights Out - Completely hides all the highway elements.

Modchart Full - Hides all the highway elements except for the strikeline, multiplier, and star power meter. Use this or Modchart Lite when playing a modchart.

Modchart Lite - Hides the highway image, notes, and strings.

Modchart Prep - Hides everything but the notes, multiplier, and star power meter.

Online

Online play is supported via a direct connection system.

Hosting a Server

You can host a server either from inside the game, or by using the separately-downloaded standalone server. The standalone server is meant for running a server without having to run CH itself, which means you can run it on other devices or a rented server and have it be operational 24/7, if you so desire.

When hosting, you will need to make sure that your firewall doesn't block CH or the standalone server from sending or receiving outbound or inbound data, or that it is disabled while you are hosting.

You must also make sure you have the port you are hosting on opened on your router. The default port is 14242, but it can be changed when hosting. Only the host needs to have their port opened. The easiest way to ensure your port is opened is by enabling UPnP (Universal Plug 'n Play) on your router if it allows (some routers/ISPs don't allow UPnP), which will automatically open the port for you when you host.

If you can't use UPnP, you must forward the port manually in your router settings. Each router is very different when it comes to their settings pages, a quick Google search for your make/model of router will get you where you need to go.

Joining a Server

To join a server, you will need to obtain the IP address and port of the server you are wanting to connect to, as CH does not have any matchmaking systems.

You can join as either a player or a spectator, provided there's enough room in the server (4 spots for players, 100 spots for spectators).

You don't need to open any ports to join a server, but you will still need to ensure that your firewall is not blocking inbound/outbound data to CH.

Using the Server Browser

The server browser will allow you to save a list of servers and see their status (such as if a password is set, or if there's room for a player to join). It is accessible in the Online menu by pressing the Join Server button.

To add a server to the server browser, either press Orange in the browser, or add them to the settings.ini file under the [servers] tag in this format:

```
serverX=ipaddress:port
```

X = the index number for the server, ipaddress = the IP address of the server, port = the port of the server. An example would be server4=192.168.0.30:14242.

Only servers that you have added will be shown, it won't search for every single server that is running on the Internet.

=====

Common Issues

Performance Issues

There are a number of common performance issues that have different workarounds and solutions.

Low Framerates on Laptops with Nvidia GPUs

Some laptops with Nvidia GPUs can have performance issues with a hardware feature called Nvidia Optimus. Typically on these laptops your framerate may be limited to around 300-500fps. The only known way to resolve this is by connecting the laptop to an external display, which usually bypasses Optimus and connects directly to the Nvidia GPU.

Low Framerates on Intel Integrated Graphics

The best solution to increase framerates here is to reduce the game resolution to something like 720p.

Alternate renderers

CH uses Direct3D 11 by default on Windows, OpenGL by default on Linux, and Metal by default on Mac. Other renderers may offer better performance or fix issues involving FPS, stuttering, or graphical glitches. On Windows, these are set [via a shortcut](#). On Mac and Linux, you can set this using a shell script.

Windows:

- --force-d3d11
- --force-d3d12
- --force-opengl
- --force-vulkan

Linux:

- --force-opengl
- --force-vulkan

Mac:

- --force-opengl
- --force-metal

Custom Content

Custom highways and backgrounds can be named whatever you want, but they must be placed in their respective folders in the Custom folder. You must press Scan Custom Images in Settings > Gameplay in-game after adding anything.

Song doesn't show up

If a song doesn't show up after scanning songs, most likely it was scanned as a bad song. CH will create a badsongs.txt file if it detected any bad songs, and it will also contain other warnings directed towards charters.

Common causes for bad songs include:

- Missing files, it must contain at least the following:
 - an audio file (typically song.ogg or guitar.ogg)
 - a chart file (notes.mid or notes.chart)
 - a song.ini that contains the song metadata
- Broken or corrupt files
- Missing song/artist name in the song.ini

“Couldn't load that song!” / Stuck on a black screen after selecting a song

If your songs are in a different location from when you scanned them in, the game won't be able to load them until you rescan your songs in Settings > General.

Song is out of sync

If a song doesn't start on time (meaning the notes aren't synced to the music), you may need to set an offset for the song. Most songs won't require an offset (make sure you calibrate your audio/video lag correctly in the settings menu), but if they do, you can set their offset in the pause menu in Song Options.

Song ends early

If a song ends early, either the audio is named wrong/missing, or the chart has a stray **end** event that shouldn't be there.

No notes show up

If no notes are showing up but the game is still working correctly (the highway is scrolling, music is playing), then you're probably playing a chart that doesn't have any instruments charted for the controller type you're using.

Image/video doesn't show up

If an image isn't showing up, or a video isn't playing, it may be a format CH doesn't support.

An image must be one of the following formats:

- .png
- .jpg/jpeg

A video must be one of the following formats:

- .mp4 (Windows/Mac only)
- .avi (Windows/Mac only)
- .mpeg (Windows/Mac only)
- VP8 .webm
- .ogv

Note that .mp4 can have problems, so .webm is recommended. See [this pastebin](#) for details.

Controllers

If you are unable to assign/map your controller, it's possible that your controller doesn't work with your OS.

On Windows, press Win + R and type in `joy.cpl`, then press enter. Your controller should be listed. If it is, double click it to test all of the inputs. If your controller is not listed, then it won't work without either drivers or maintenance (such as replacing a bad cable).

On Mac or Linux, or if joy.cpl is being difficult on Windows, use the [Gamepad Tester](#) website to check your inputs.

On Windows, if your controller or keyboard doesn't work after mapping buttons, you may need to clear the mappings from the system registry.

1. Press Windows key + R and type in regedit.
2. Navigate to Computer\HKEY_CURRENT_USER\Software\srylain Inc.
3. Right click on the Clone Hero folder and press delete.
4. Run Clone Hero again, map your controls, and everything should be good to go.

Do NOT touch anything else in the registry, or else you WILL screw up your computer!

Game Settings

If the volume settings don't appear to be working, make sure you are setting the correct volume settings for the audio tracks that the song has. For example, if a song only has a song.ogg audio file, the Guitar volume won't do anything, while the Song volume will.