# MDickie Official Modding Guide (Unity)

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## Using Mods

### Disclaimer

When using mods, you should be aware that it can lead to unexpected game behaviour. The potential risks include, but are not limited to:

- Software Issues: Potential for game instability, crashes, or unanticipated behaviour.
- Save Data Concerns: Game save data could get corrupted or lost.
- **Content Variations:** Mods may introduce content that might be deemed inappropriate, offensive, or divergent from the game's original intent.
- **Potential Threats:** There's always a risk, albeit small, of harmful software like malware or viruses when downloading and installing mods. Note that while Steam (and Thunderstore) conduct antivirus checks on mods, no system is entirely infallible. Always exercise caution regardless of the source.

No accountability is taken for any issues that arise due to the use of mods. Any loss, damage, or malfunction resulting from mod usage is the responsibility of the user. If you encounter bugs or issues while using mods, it's important to remember that these might be directly related to the modifications and not the base game. Before reporting any issues, please disable all mods and verify if the problem persists in the unmodified game and save file.

Please do not report issues with modding to the game's developer. Either report them directly to the developer of the mod, or in the Steam Workshop discussions section.

### Notes

<game name> refers to the full name of the game to be modded, e.g. "Wrestling Empire" or "Hard Time III".

<game root> refers to the folder containing the game's executable. You can find it through Steam by right-clicking the game and choosing "Browse local files".

"CCL" refers to the content loader for the respective game, e.g. WECCL or HTCCL.

### **Installing Mods**

The recommended way to install mods is through the Steam Workshop: Wrestling Empire https://steamcommunity.com/app/1620340/workshop/ Hard Time III https://steamcommunity.com/app/3009850/workshop/

Steam Workshop mods are automatically installed after clicking the "subscribe" button without need for any manual steps.

### **Making Backups**

It is strongly recommended to create a backup of your save file before running any mods, as mods could potentially cause save files to break. To create a backup, navigate to **%USERPROFILE%\AppData\LocalLow\MDickie\<game name>** (e.g. using the File Explorer

address bar or the Run dialogue which can be opened by pressing Win + R), then move the Save.bytes file to any safe location.

Please note that CCL splits the modded save file into **ModdedSave.bytes** starting from version 1.7, so it'll be separate from the vanilla save file, **Save.bytes**.

CCL also creates backups automatically. However, it's not recommended to use these as anything except a last resort.

### **Manual Installation**

It is possible to install mods manually from external modding websites such as Thunderstore: Wrestling Empire https://thunderstore.io/c/wrestling-empire/ Hard Time III

https://thunderstore.io/c/hard-time-3/

It is recommended to run the game once with mods enabled so that the necessary folders for this can be created.

To install mods manually, click the "(manual) download" button on the modding website, extract the downloaded zip file and copy the contents of "plugins" into

<game root>\BepInEx\plugins\Manual (placing them in "plugins" works too but is discouraged).

### **Custom Content**

For adding your own content (e.g. costumes, themes, and characters), please refer to the "Content Mods" section of the Mod Creator Guide.

### **Mod Compatibility**

Please keep in mind that updates might cause mods to be incompatible. If you are worried about your save file being messed up, it may be advisable to wait a few days after an update for CCL to be considered stable.

Modded saves with custom content are not compatible with the base game. Also note that removing mods while some of its content is still assigned to characters in-game may cause issues as well.

### Configuration

Some code mods may have settings that can be changed to modify its behaviour. You can edit this directly from the game's options. Alternatively, the configuration files can be found in <game root>\BepInEx\config, and can be edited through any text editor.

### Troubleshooting

#### Mods don't work at all!

First, make sure you're running the game from the modded executable as written in "Running Modded". If this is the case, try reading the console log that shows up after the

game launches to see if anything is off (**Alt + Tab** or **Alt + Enter** if in fullscreen). Mods that load correctly should say "Loading [mod name]" without any errors afterwards. If the game recently updated, chances are that most mods haven't been updated yet.

#### An error (red text) appears on screen or in the console.

Try reading the error to see if you recognize one of the following:

#### TypeLoadException: Could not resolve/load type (...):

This means you're using a mod that's incompatible with the game version you're using. Make sure the game and mod (mentioned above the error) are up-to-date, and if they are, remove the mod until an update is released.

In case this happens for a Steam Workshop mod, please report it to the mod author.

#### IndexOutOfRangeException Index was outside the bounds of the array:

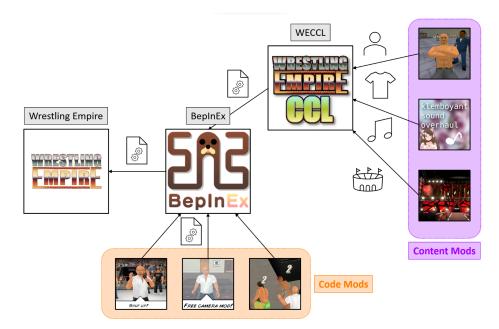
If the stack trace says "at SaveData.(...)", this means the save data is broken. The best thing to do if this happens is loading a backup. If not, it could mean anything. If it actually causes problems, reporting it to the mod author is recommended.

If none of the above messages apply and the error has a visible effect, you should try determining the mod responsible for it and reporting it to the mod author if possible.

## Making Mods

### **General Info**

There are two different types of mods; code mods and content mods. Code mods use the BepInEx modding framework to alter the game's code directly whereas content mods add or change certain game assets (such as costumes, themes, and characters). To better understand how this works, please see the diagram below.



Note that the CCL is technically a code mod itself.

### **Code Mods**

Code mods are created through BepInEx and will require knowledge of C#. Due to the complexity of BepInEx mods and reading obfuscated code, this guide will not be covering the details on how to create them. The following links can help you on the way: <a href="https://harmony.pardeike.net/articles/intro.html">https://harmony.pardeike.net/articles/intro.html</a> <a href="https://harmony.pardeike.net/articles/intro.html">https://harmony.pardeike.net/articles/intro.html</a> <a href="https://https://harmony.pardeike.net/articles/intro.html">https://harmony.pardeike.net/articles/intro.html</a> <a href="https://https://harmony.pardeike.net/articles/intro.html">https://harmony.pardeike.net/articles/intro.html</a> <a href="https://https//ht

To test code mods, simply place the DLL in <game root>\BepInEx\plugins\Manual

### **Content Mods**

Content mods consist of structured files to be loaded through the CCL. Creating them generally requires no coding knowledge. Before starting with making content mods, please make sure that the CCL is installed.

When testing mods, it's recommended to put them in the following folder:

#### <game root>\BepInEx\plugins\Manual

(You can create the folders if they do not exist)

Placing them directly in the **plugins** folder runs the risk of the launcher interfering. You can alternatively use a subfolder formatted as **<author>-<mod name>** to test if your content is being saved correctly.

For all other features, please refer to the documentation of WECCL:

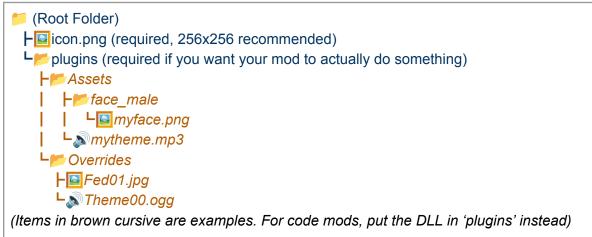
https://ingoh.net/weccl/docs/intro.html

(Note: Generic CCL documentation is planned for the near future. Most of it is applicable to all games, though.)

### **Uploading Mods**

The easiest way to upload mods to Steam Workshop is through the dedicated uploader which now comes bundled with the launcher. To run the launcher, simply select "Run Uploader" from the mod launcher.

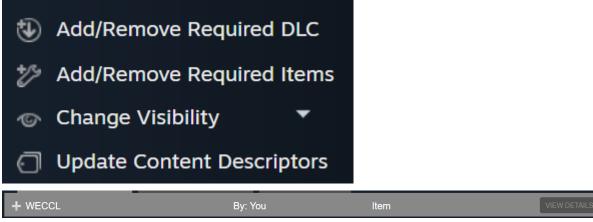
Mod folders need to be formatted as follows:



When submitting mods, always change the version number. If the version number is not changed, the mod will not be automatically updated for users.

When publishing content mods, make sure to add the CCL as a dependency through Steam Workshop.

Select "Add/Remove Required Items" from the menu on the right, then choose the required mods from the menu that shows up.



This step also applies to mods with other dependencies.