

GTA-Crime construction

Requirement (download through the link provided)

- GTAVisionNative (compile from source here or download x64 here)
- ScriptHookV (download here)
- ScriptHookVDotNet V3 (download latest version here)
- Menyoo GTA5 trainer (download here)
- Visual Studio
- others managed by Nuget

Building C# code

- Open .sin code in Visual Studio
- Right click Solution **GTACrime** itself and go to: **properties -> Configuration Properties** and set the configuration to **Release** for **x64**
- Right click Solution and click Build Solution
- The necessary C# files are created in **./GTACrime/bin/x64/Release**.

Preparation before running GTA5

- Install Grand Theft Auto V
- Enter Rockstar Games Launcher and turn off battle eye in settings
- Copy ScriptHookV.dll and dinput8.dll files which are in downloaded ScriptHookV.zip to Grand Theft Auto V folder
- Copy all files which are in the downloaded ScripHookVDotNet.zip to Grand Theft Auto V folder except README
- Copy Menyoo.asi file and menyoostuff folder which are in downloaded MenyooSP.zip to Grand Theft Auto V folder
- Make scripts folder in Grand Theft Auto V folder
- Copy GTAVisionNative.asi and GTAVisionNative.lib files which are in downloaded native64bit.zip files and C# files created from data_generation to scripts folder
- Set the parameters in the gta_config.ini file and copy to scripts folder
- In gta_config.ini, you can change various parameters such as save path, number of frames, occurrence events, and weather.
- When editing the gta_config.ini file, **do not place comments in the middle**.

Running GTA5

- Enter GTA V story mode.
- Active FreeCam mode: F8 -> Misc Options -> FreeCam (only at first)
- F3 to enter the free camera mode.
- Press 0(top row number key) to set random seed. (required!!)

- Press **PageUp** to activate GTACrime plugin.
- **F10** to save location. When you find a new location press **L** to save it, a popup will ask for a name so you can find it again later. Make sure these names are unique. Location files are saved in the path specified in the `gta_config.ini` file.
- In mode **F10**, you can cycle through already existing locations using `[]` keys.
- **F11** to assign ROI. Use **U** to update the ROI (note: ROI is defined as a closed polygon). You can use **K** to remove the last corner point.
- Use **N** to save all the locations. (required!!)
- **F12** to collect data.

Video creation

- After running GTA5, two viewpoint frames are created for each location in the path specified in `gta_config.ini`.
- Videos can be created by synthesizing the frames using the provided Python code.

Feature extraction

- Open `get_I3D_feature.ipynb` or `get_CLIP_feature.ipynb` file and set videos and features folder path.
- Execute all the blocks in the ipynb file and obtain the I3D or CLIP features

Note

- An error may occur when updating GTA5.
- Most errors can be resolved by downloading the latest version of ScriptHookV and ScriptHookVDotNet V3.

(Files will be updated approximately 4-5 days after the game update.)