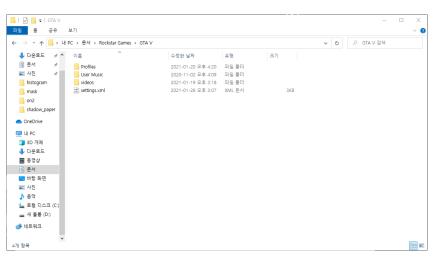
## How to make paired GTA shadow image

# Woojin Ahn, Geon Kang



#### How to turn GTA Shadow on/off (1/1)

- PC → Documents → Rockstar Games → GTA V → settings.xml
- ShadowQuality value = "0" → shadow off,
   = "1" or "2" → shadow on



```
settings.xml - Windows 메모장
                                                                                                                                      파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)
<?xml version="1.0" encoding="UTF-8"?>
<Settings>
 <version value="27" />
  <configSource>SMC_AUTO</configSource>
  <graphics>
   <Tessellation value="3" />
   <LodScale value="1.000000" />
   <PedLodBias value="0.200000" />
   <VehicleLodBias value="0.000000" />
   <ShadowQuality value="0" />
   <ReflectionQuality value="2" />
   <ReflectionMSAA value="4" />
   <SSAO value="2" />
   <MSAA value="0" />
   <MSAAFragments value="0" />
   <MSAAQuality value="0" />
   <SamplingMode value="0" />
   <TextureQuality value="2" />
   <ParticleQuality value="2" />
   <WaterQuality value="2" />
   <GrassQuality value="2" />
   <ShaderQuality value="2" />
   <Shadow SoftShadows value="3" />
   <UltraShadows_Enabled value="false" />
   <Shadow_ParticleShadows value="true" />
   <Shadow_Distance value="1.000000" />
   <Shadow_LongShadows value="false" />
   <Shadow_SplitZStart value="0.930000" />
   <Shadow_SplitZEnd value="0.890000" />
   <Shadow aircraftExpWeight value="0.990000" />
   <Shadow_DisableScreenSizeCheck value="false" />
   <Reflection_MipBlur value="true" />
   <FXAA_Enabled value="true" />
   <TXAA_Enabled value="false" />
                                                                                  Ln 1. Col 1
                                                                                                      100% Windows (CRLF)
```

## Settings to make paired shadows in GTA (1/2)

- Start GTA V game (story mode recommended, cheat keys available)
- In-game settings Display Set radar and HUD to off
   → It hides maps and other unnecessary information when recording video.



# Settings to make paired shadows in GTA (2/2)

Set Settings – Camera – First Person Vehicle Hood to On

→ When changing to first-person perspective after boarding a vehicle, the perspective moves to the hood of the vehicle.







(Hood on)

(Hood off)

### Making paired shadows in GTA (1/2)

- Press the F1 key to start video recording, then travel around the desired area and record video of the road.
- Once you have completed recording, go to Settings Rockstar Editor.











- Rockstar Editor → Create a new project → Add clip → Start editing, watch the recorded video, mark the desired scene with a marker and save it.
- Load the same project when turning shadow on and when turning shadow off, save the screenshot with F12, and obtain paired data of shadow on / off for the same scene.

### Making paired shadows in GTA (2/2)

- Screenshot storage location
  - When extracting data as a screenshot using the in-game function, the save path is as follows.
  - C → Program Files (x86) → Steam → userdata → 371959779 → 760 → remote → 271590 → screenshots

- Please contact <u>wjahn@korea.ac.kr</u> for further information
- It would be a pleasure to cite following papers:
  - Ahn, Woo-Jin, et al. "Domain adaptation for complex shadow removal with shadow transformer network." *Neurocomputing* 552 (2023): 126559.
  - Kang, Geon, et al. "Shadow Removal using GTA Road Dataset." 2021 21st International Conference on Control, Automation and Systems (ICCAS). IEEE, 2021.