Flight sims troubleshooting procedures:

IMPORTANT: If using TeamViewer to troubleshoot exhibit, make sure you are viewing the right-side screen when running ANY scripts. This is because TeamViewer forces new application to open on the screen you are currently viewing.

If using keyboard and mouse, you can use the left-side icons to troubleshoot just fine.

Troubleshooting:

- To restart the simulation environment if a problem exists, Alt-Tab out of Prepar3D (If open) and use WindowsKey + D on the keyboard to show the desktop.

- You will need to open Task Manager with the keyboard shortcut: Ctrl + Shift + Esc, then choose AutoHotkey and “End Task” otherwise the script will keep clicking where the reset scenario button shows up in P3D (For crashes or end scenario)

- You can then use the mouse to right click on the script labeled “Startup” on the desktop.

  I suggest right clicking it, and choosing “Run Script” because it takes a while (around 50 seconds) to show any change on the main monitor. If you double click, you may think you missed when in fact it is already working.

  The startup script will close Omnidome, Prepar3D, and OBS, if any/all are open. It will then reopen all of them, map the projection screen to the correct settings, and start Assetto Corsa and enter the default race.

- If you need to get into the BIOS or use a boot drive, you will have to remove the DisplayPort headless dummy adapter from the video card. Make sure to replace it in the same port before booting Windows.

- If exhibit does not automatically start into Prepar3D on a cold boot after 300 seconds: Restore Flight Sim backup image to the main SSD per standard backup image restoration SOP.

- If for some reason, manual startup is absolutely required, open the startup script and it will tell you what it’s doing in the comments for each section. Follow the instructions that are the comments.

SOP:

- Power on: Apply power to the computer and turn on the projector. The computer will automatically power on, boot to windows, and run the automatic startup script, ending with the exhibit ready to use by guests.

- Power off: Turn off the projector. Wait 300 seconds or until projector fan turns off. At this point the bulb is cool enough to safely cut power. Turn off the power strip.

Documentation:

- The main application chain for projector mapping is as follows:

OBS: Records the right-hand desktop image and repeats it into a spout (Spout is an implementation of Syphon, which is a Mac video streaming protocol, but spout is for Windows) Syphon stream.

Omnidome: Takes the spout input from OBS, warps it to match the projector screen, and re-outputs it on the left-hand screen, which is what the projector displays.

Prepar3D: Runs on the right-hand screen, which then gets put through the above chain and displays, correctly warped, on the projector.

- The right-Hand screen is set as the default screen in Windows. Is is “displaying” on the displayport headless dummy adapter. All applications will open on the right hand screen, which is then mapped and mirrored onto the left-hand (Projector) screen by OBS > Omnidome. This is why the applications all open on the right-hand “screen”

- If OBS needs to be re-setup, just install the Spout plugin for OBS. Then set up a desktop capture from the right-hand screen that has a Filter applied to it in OBS. The filter should be the spout output.

- If Omnidome needs to be re-setup, open the startup script in a text editor. It will tell you in the code comments what each step is doing. Follow those steps. Omnidome has a saving issue where it can’t save configuration on this build, so you will need to fix the AutoHotkey startup script to reconfigure Omnidome on each boot and then click the “Live” button in the top right.

Omnidome must remain maximized and on the “Live” tab to display warped output properly on the projector screen. Open whatever needs to be streamed/warped over top of Omnidome.

- The usb joystick emulation code is in this repo or on the OSC GitHub in the “exhibit-cobra-simulators” repo in the flight sims folder