Manual Guide

v1.3.0

Lumaqube Technology

www.lumaqube.com

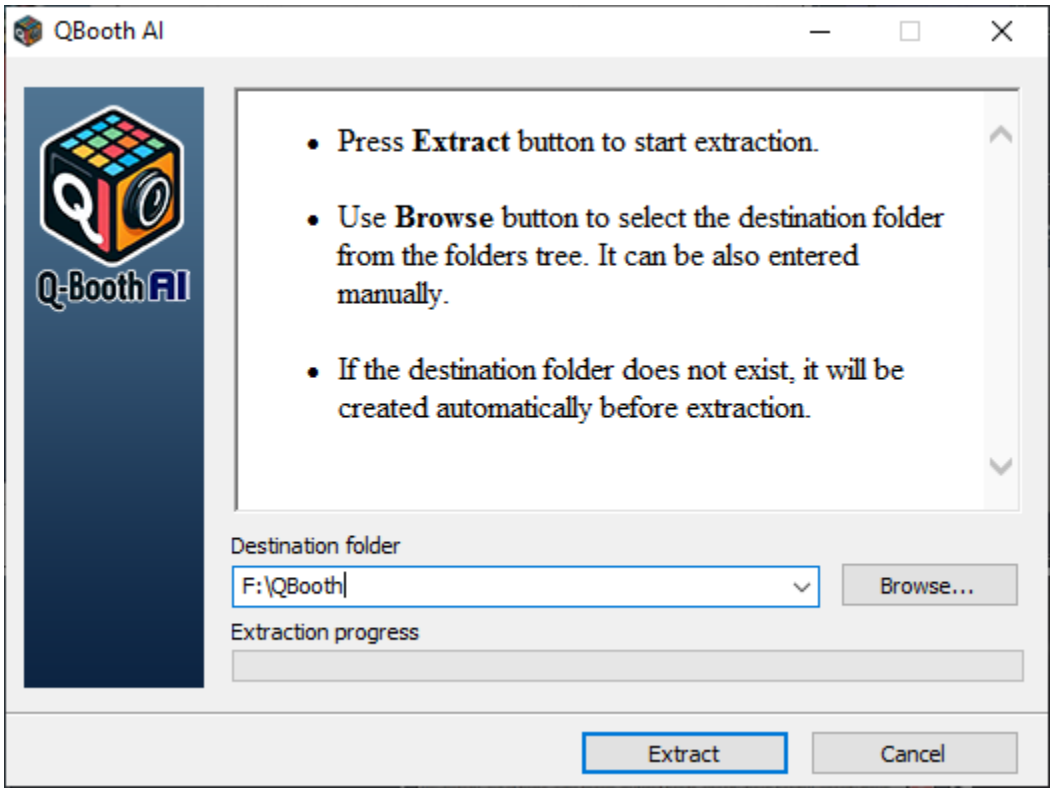
Table of Contents

A. QBooth Installation and First-Time Setup Guide

Welcome to QBooth! Follow these steps to install and run QBooth for the first time.

1. Download and Install QBooth

1. Download QBooth:
    - Visit the official QBooth website and download the latest version of the software.
2. Run the Installer:
    - Locate the downloaded installer file and double-click to run it.
    - Follow the on-screen instructions to complete the installation process.



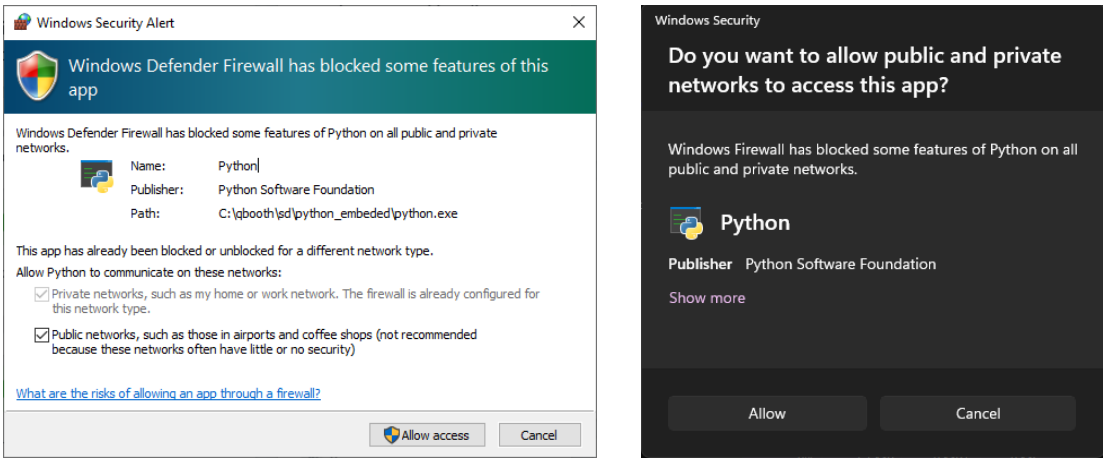
2. Choose an Installation Directory

- **Recommended Folder Name:**
    - It is recommended to use a short folder name without spaces, such as **`C:\QBooth`** or **`C:\QBoothAI`**.

3. First-Time Running

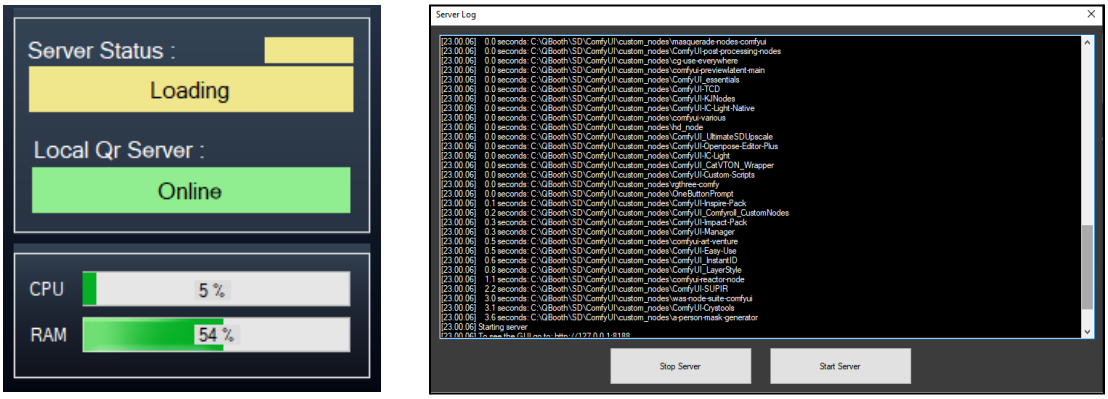
1. Launch QBooth:
    - Open QBooth.exe.

2. Allow Python Server:
    - On the first launch, if a message box appears asking for confirmation to allow Python, please allow it. This is necessary for the local QR sharing server to function properly.



(picture: the Windows Firewall confirmation dialog on Windows 10 and Windows 11)

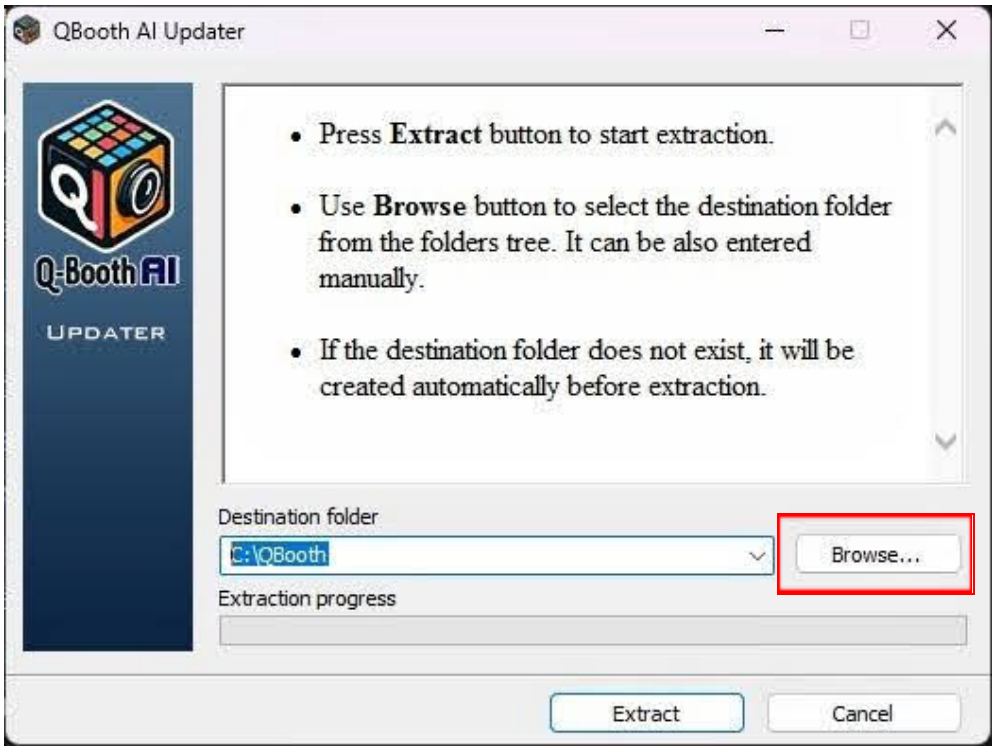
3. Loading the Servers:
    - Wait until the Server Status is Online. If it's been a long time and the status is still loading, you can double-click on the "Loading" text to launch server info window.



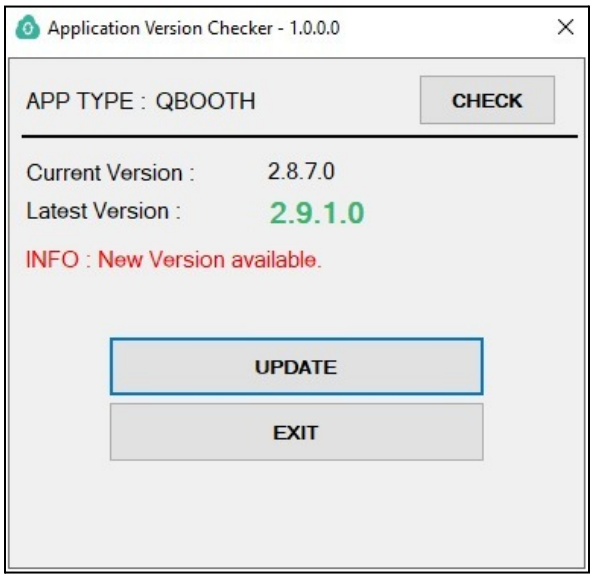
You can observe the error message in the log and pass to our technical-support for further assistance

4. Updating Q-Booth

- Get the Q-Booth Updater from website or technical support. Run the updater and select the folder where you installed Q-Booth.



- For small EXE updates, you can check new version with AVC.exe (Application Version Checker). If there is new version, you can download. The previous versions are kept in “update_version” folder, you can move one of it to QBooth main folder, in case there’s something wrong with the new update.



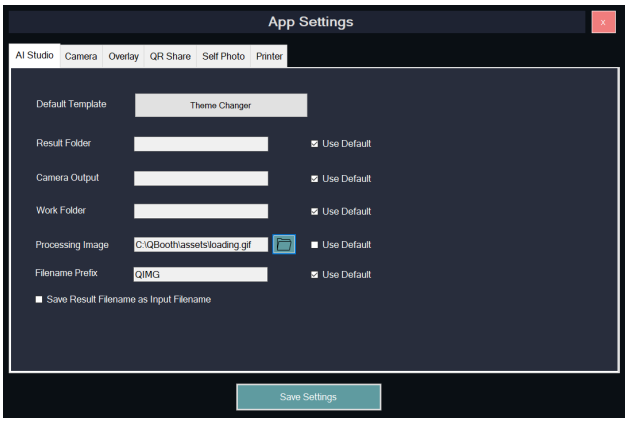
4. Uninstalling Q-Booth

Once installed, Q-Booth is a standalone application, it will not have an uninstaller and will not appear in the list of installed applications, you just need to delete the folder that you extracted.

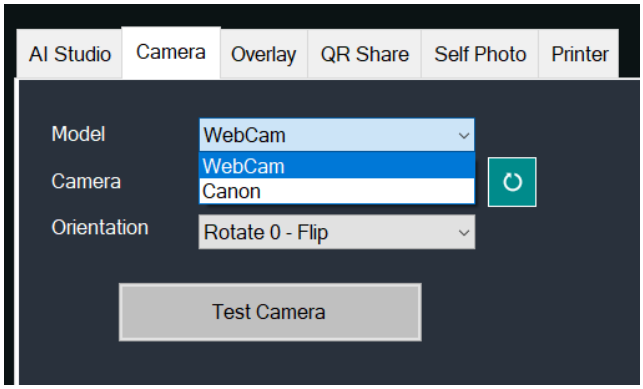
B. Settings

1. **Set Data Directory:**

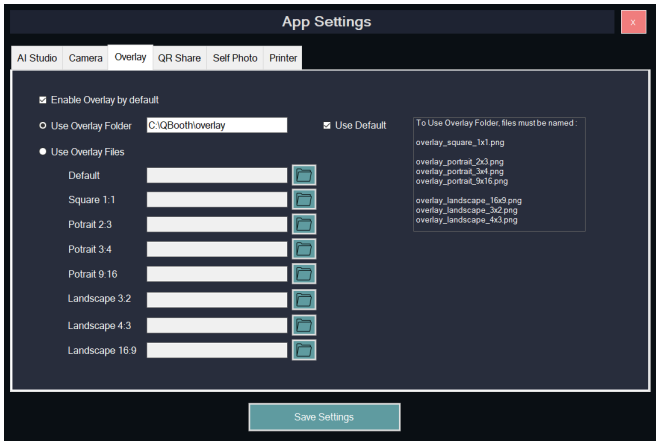
   Go to `Settings - AI Studio` and set the Data Directory where QBooth will store and read images. Ensure this directory is easily accessible and has sufficient storage space



2. **Camera Settings**
   Q-Booth supports WebCam and Canon cameras at the moment.

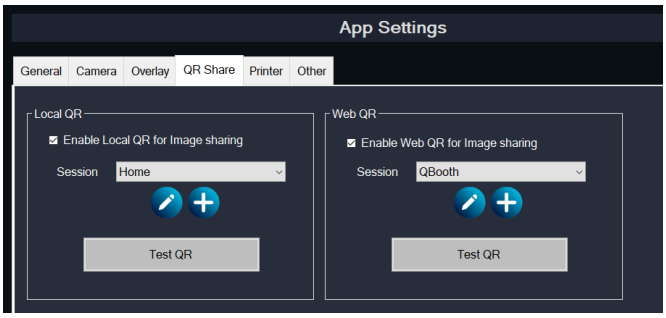


3. **Overlay**
   You can change the image for overlay on top of the result image. The image must be PNG transparent.



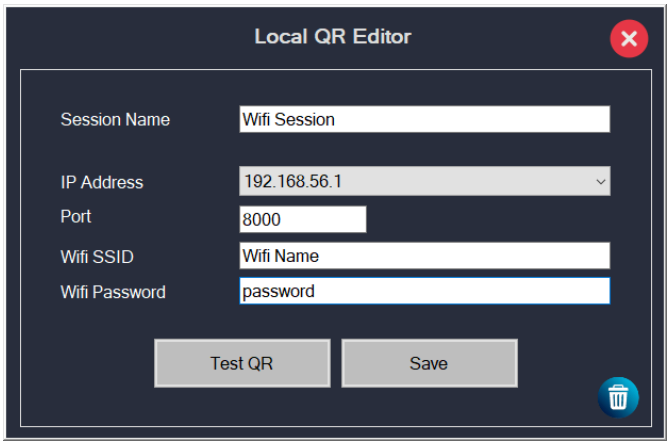
4. QR Share

You can configure the settings for local QR sharing and Web QR sharing function. For the local QR, you must input the name of your wifi network and the password.



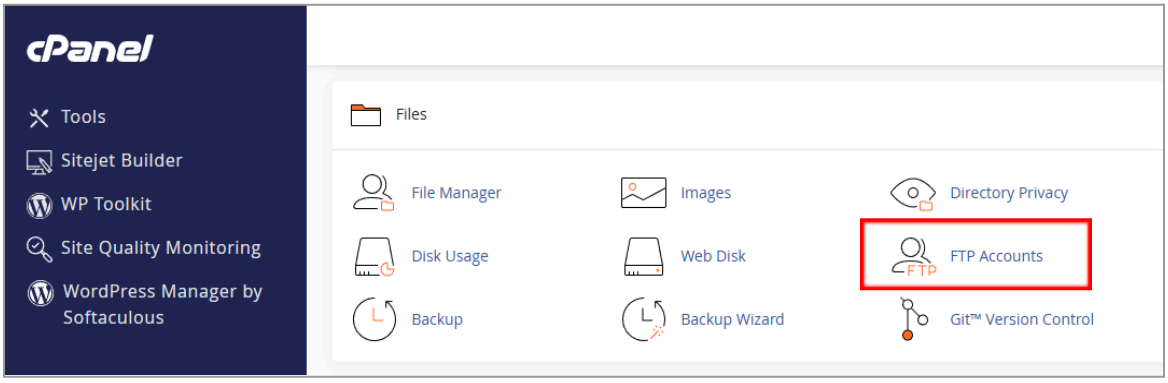
How to Setup Local QR:

- On the Settings/QR Share/Local QR, click plus icon (Add New) and fill the form with your Wifi information.

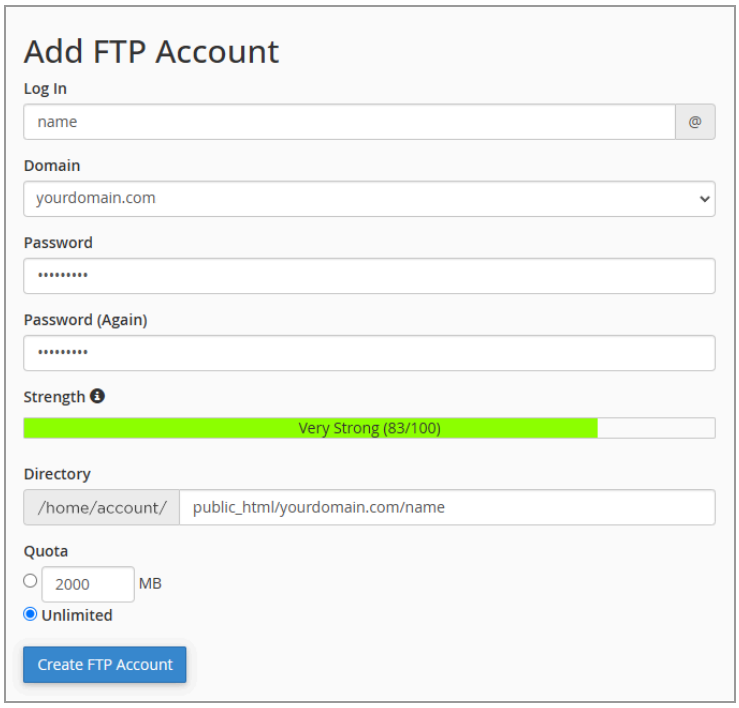


How to Setup Web QR via FTP:

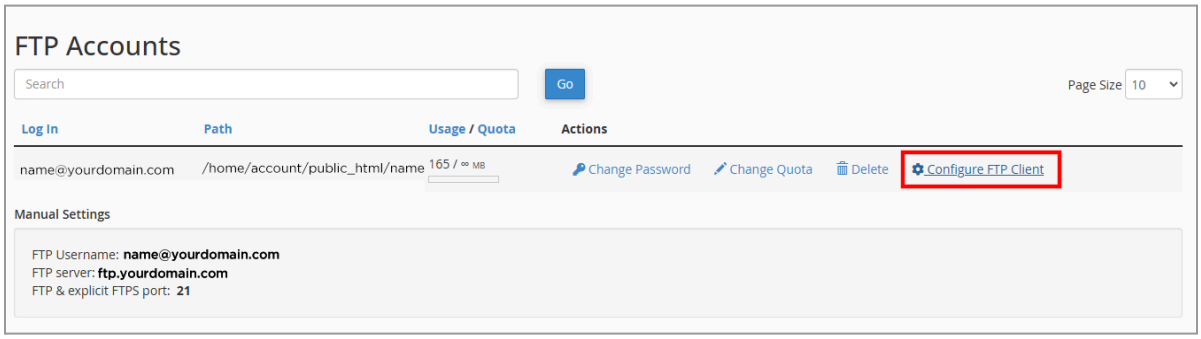
- Get an FTP account, you can use FTP account that you obtain from your web hosting or VPS provider rent services.
  If you have access to your webhosting's cPanel, you can create new FTP account (check your webhosting package features).



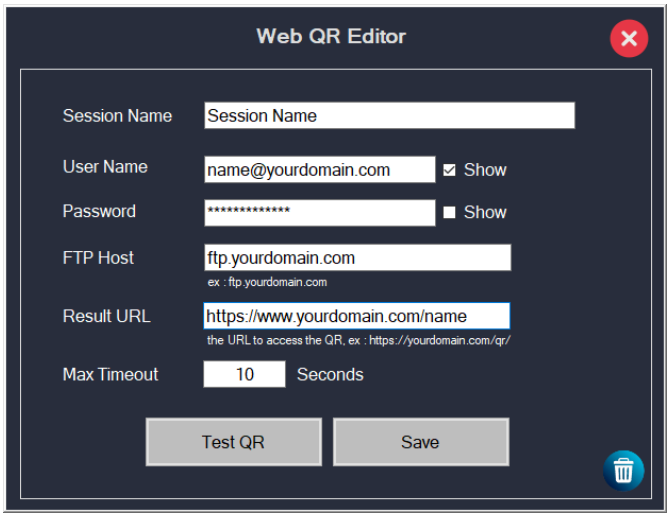
- Create a new FTP account, fill in the form with your log in name, choose the domain (if you got multiple domain/subdomain), password, directory name/path and quota. Click on Create FTP Account.



- Your FTP account will be created. Click on “Configure FTP Client” to see the information.

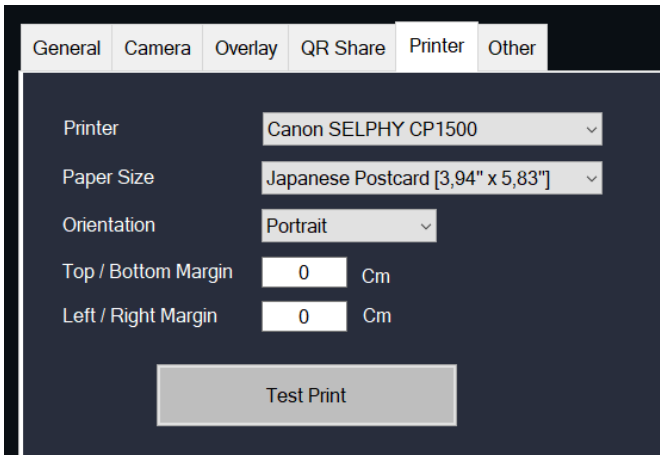


- On the Settings/QR Share/Web QR, click plus icon (Add New) and fill the form with your FTP information.



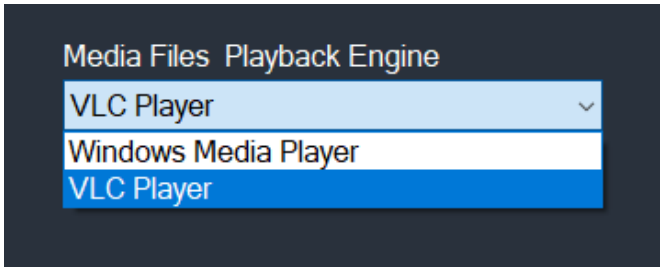
5. Printer

This is for setting the printer, paper size, orientation and margin. You can click on Test Print button to print a test page.



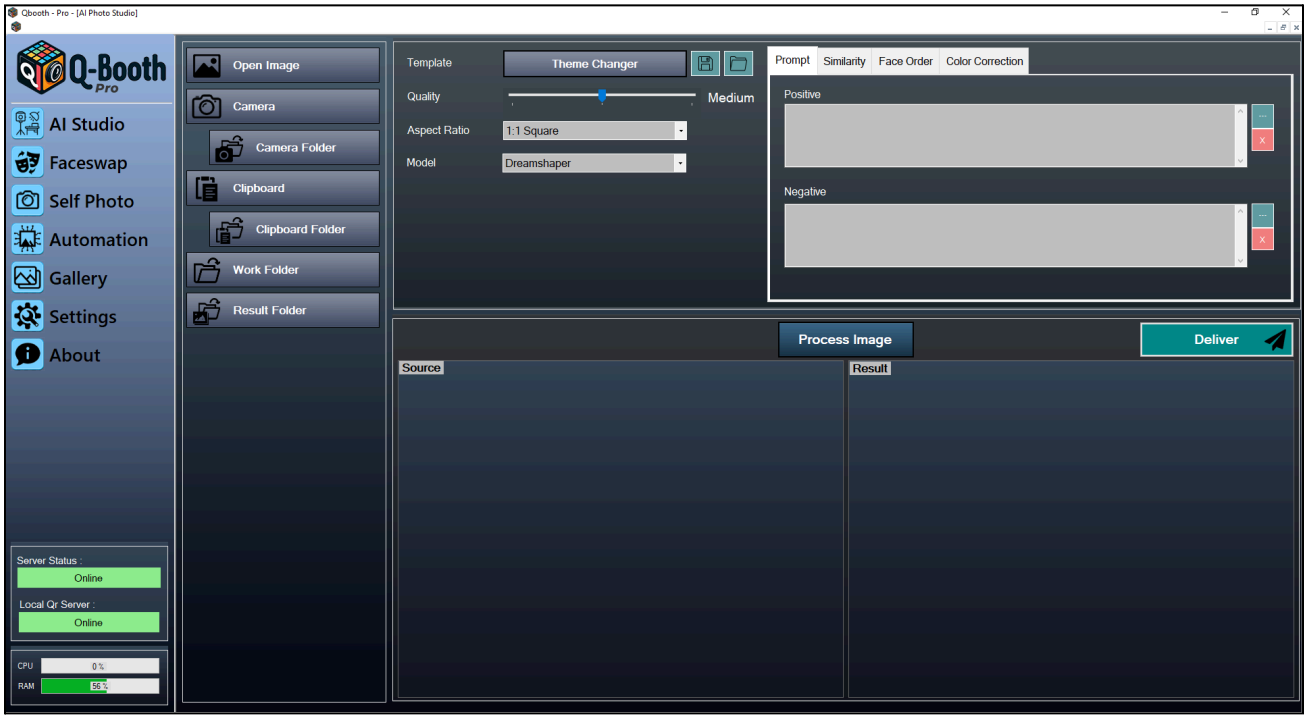
6. Other

If you encounter error with video playing in Self-Photo (Welcome Screen, Shutter Release, etc), you can try to change the playback engine to either WMP (Windows Media Player) or VLC.



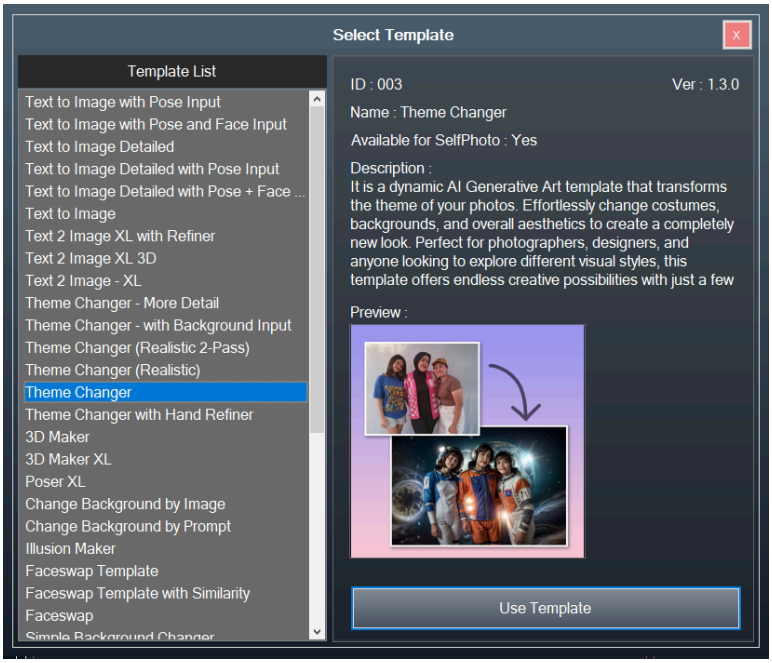
C. AI Studio

This is the main interface of QBooth AI, or you can say it as the back-end. Where you design your prompts and template slots for the Self-Photo (Front-End). You can also use this as operator-assisted photo session. Think about this as a sandbox, where you can play with different settings and achieve whatever you want to make by using the available tools.



1. Template Selection

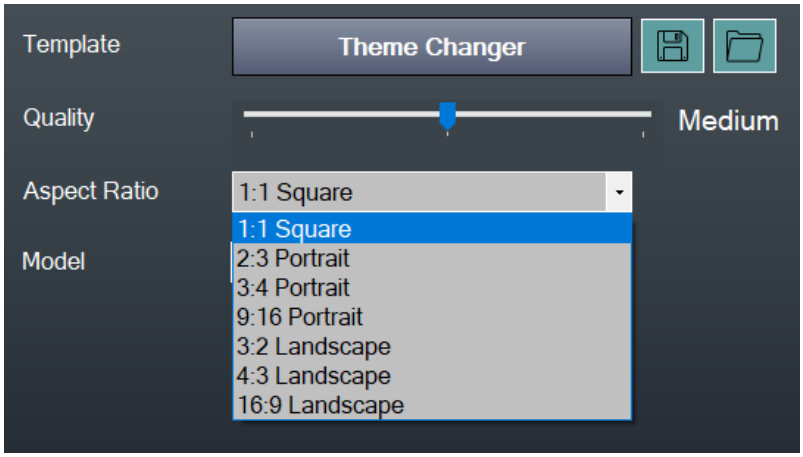
There are ready-to-use templates that you can use to play with Gen-AI capability in Q-Booth. One of the most versatile is Theme Changer, that can turn your portrait photos into anything just by typing prompts.



2. Aspect-Ratio Selector

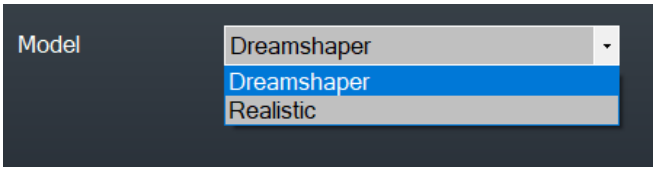
You can change the aspect ratio here. Please match the aspect ratio with the output you want to get. For example, you want to print on 4R paper, so the aspect ratio must be 2:3 (Portrait) or 3:2 (Landscape).

Or if you want the result for social media story, you can set it to 9:16.



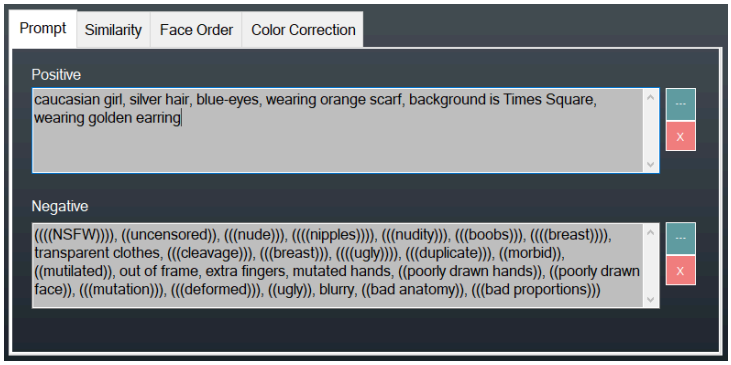
3. Model Selection

Some templates allow selection of diffusion models

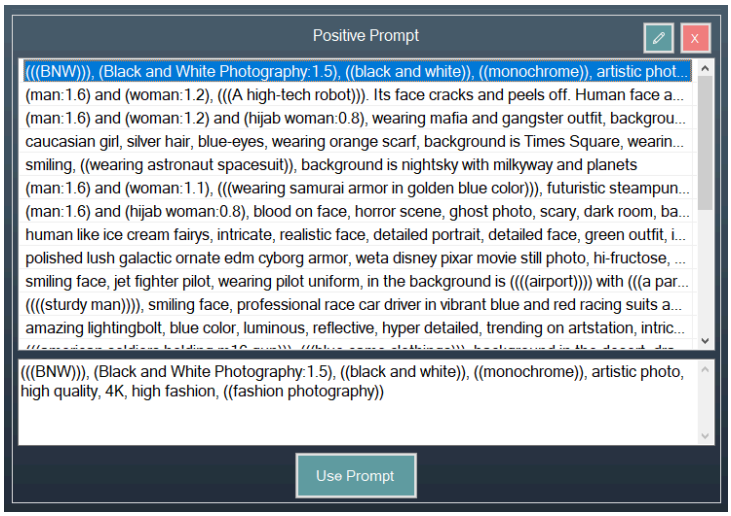


4. Prompt Inputs

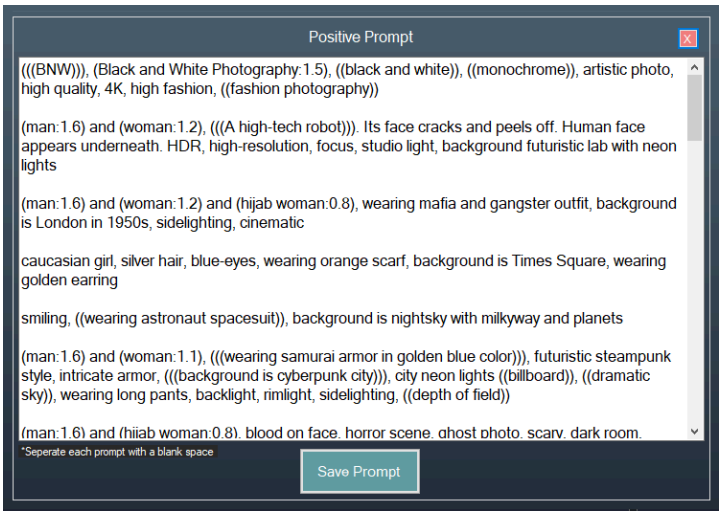
Positive prompt: what you want to see in the generated image.
Negative prompt: what you don't want to see in the generated image.



You can also save and load prompts using the small button (three-dots) on the right of textbox input.

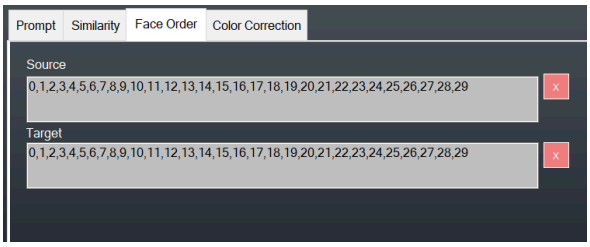


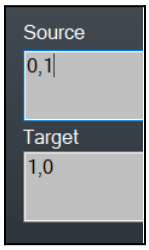
To add or edit entry, click on pencil icon (edit). Use blank space (enter) to separate between prompts.



5. **Similarity**
   The more similar (higher value), the less change to the image. The result image will look more similar to the source image.

6. **Face Order**
   Written in index value, starting from 0. Faces are read left to right.
   For example, you have a photo of 2 person and want to swap their face. You input 0,1 into Source textbox and 1,0 to Target textbox.

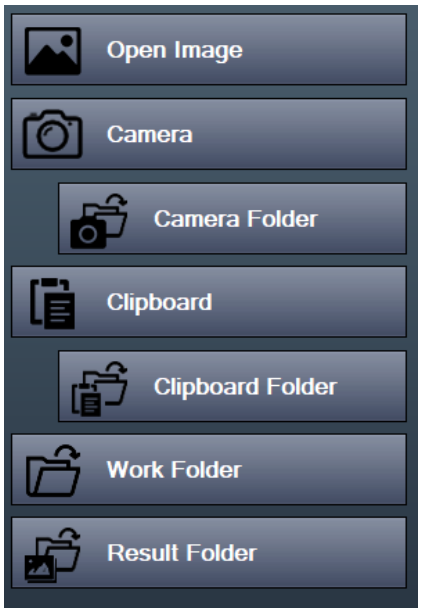




7. **Color Correction**
   You can adjust temperature, hue, brightness, contrast and saturation of the result image.

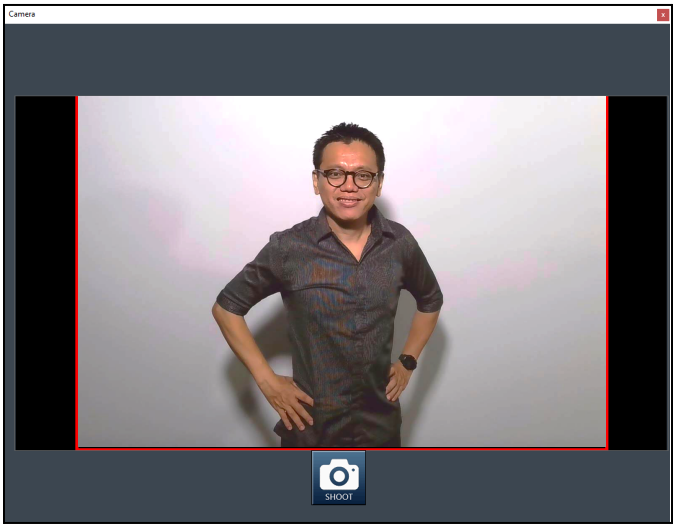
8. **Save/Load Adjustment**
   After you find the result that you want, you can save it. So, next time you can just load it and start processing new photo based on the saved adjustments. The saved file can also be loaded in Self-Photo as slot.

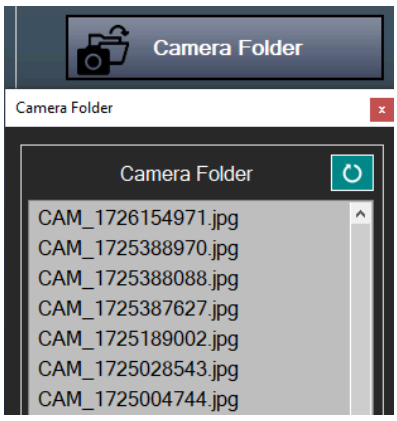
9. **Sources**
   There are several source of image that you can use for processing: Open image file, Camera, Clipboard, Work Folder and Result Images (yes, you can re-process the resulting image).



10. **Camera Button**
    When clicked, a camera window will pop-out with liveview of the selected camera input in Settings. Click on shutter button (camera icon) to take photo.

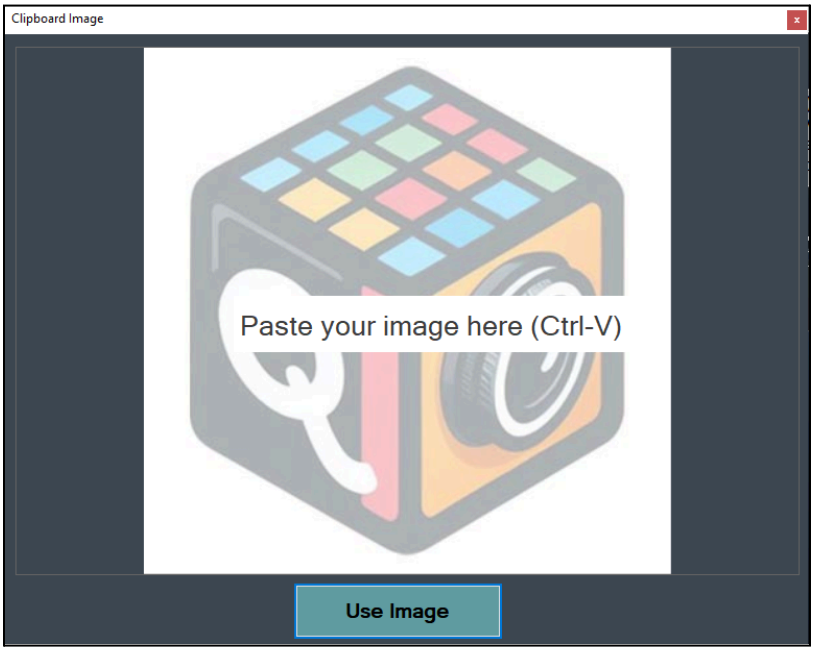
    Below the Camera button, there is camera Folder that contains the previous captured images.





11. Clipboard Button

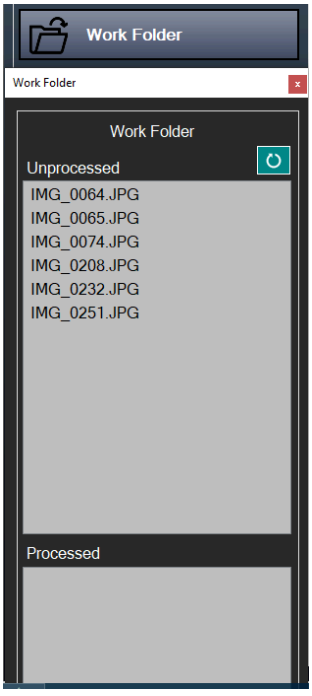
If you are experimenting and playing around finding good prompt settings, sometimes you need to input image from internet. You can just right-click the image on the browser then select Copy Image. Then, click on Clipboard button and press Ctrl+V to paste the image into the Q-Booth.



12. Work Folder Button

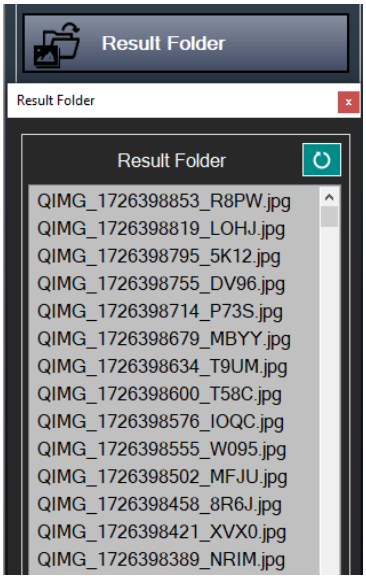
This is like “Hot Folder” or “Watch Folder” on other software. If you work with camera that is not supported by Q-Booth, you can use tethering software (look section **G. Camera Operation**) that pointing the result to this folder.

The processed images will be moved to “Processed” list.



13. Result Folder Button

You can load the previous result image as source image and re-process it.



14. Process Button

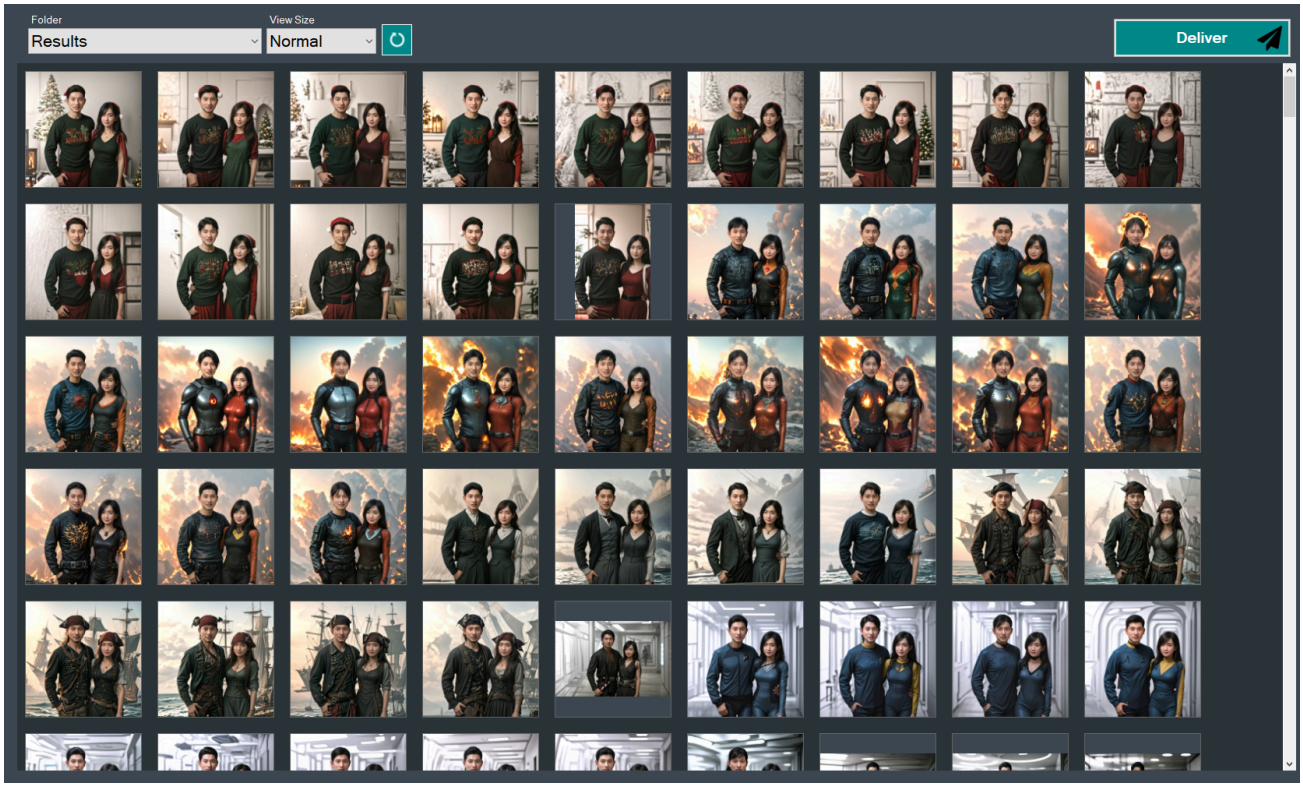
Click on this button to begin processing the source image.

15. Deliver Button

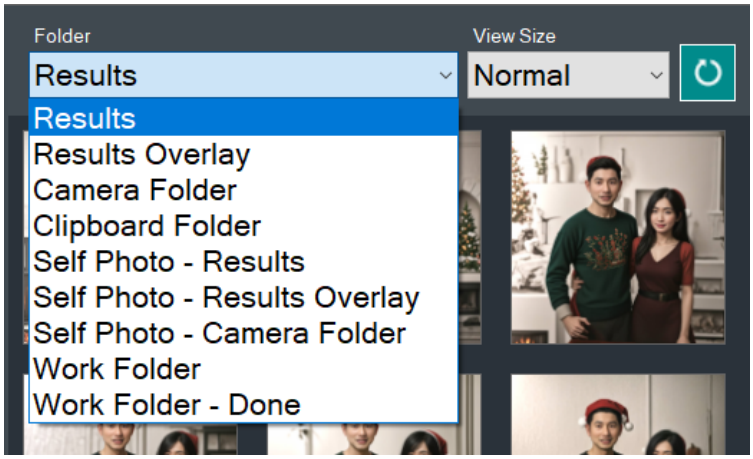
This will open Deliver window, where you can send the result to printer or sharing via QR code.

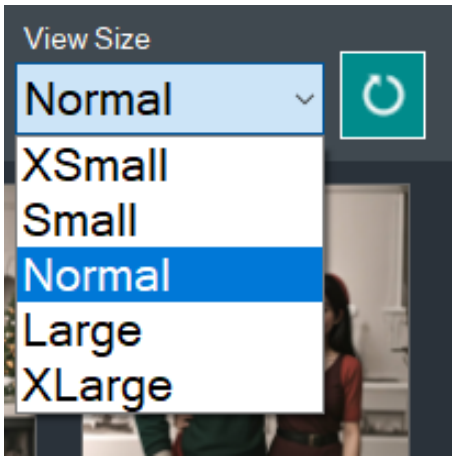
D. Gallery

If you want to see all the images, you can go to Gallery. This contains image browser for the result images, as well as the source images (camera, clipboard, work folder, etc).

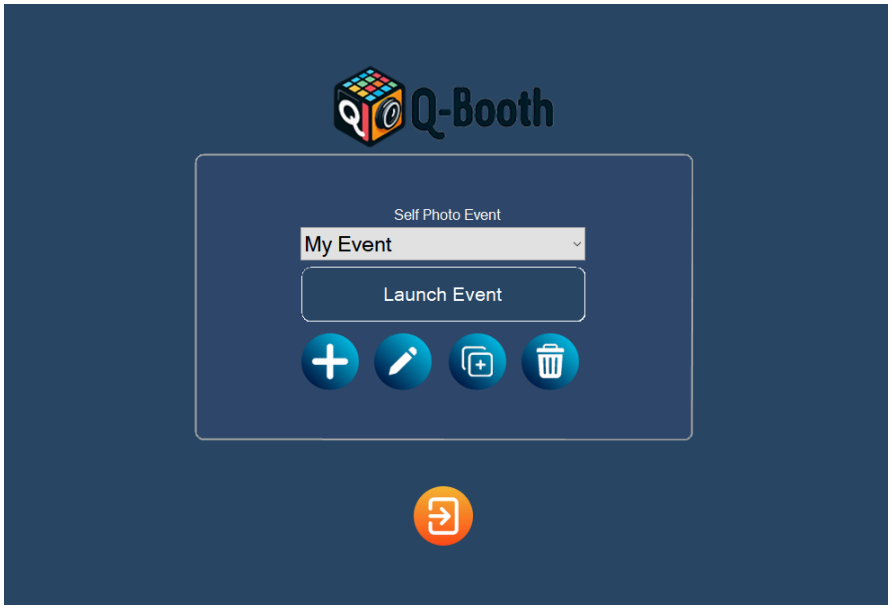


You can select the folder and thumbnail size.





E. Self-Photo



The Self-Photo feature in QBooth allows users to take photos of themselves using a connected camera. This section will guide you through setting up and using the Self-Photo feature effectively.

Things to check before running Self-Photo:

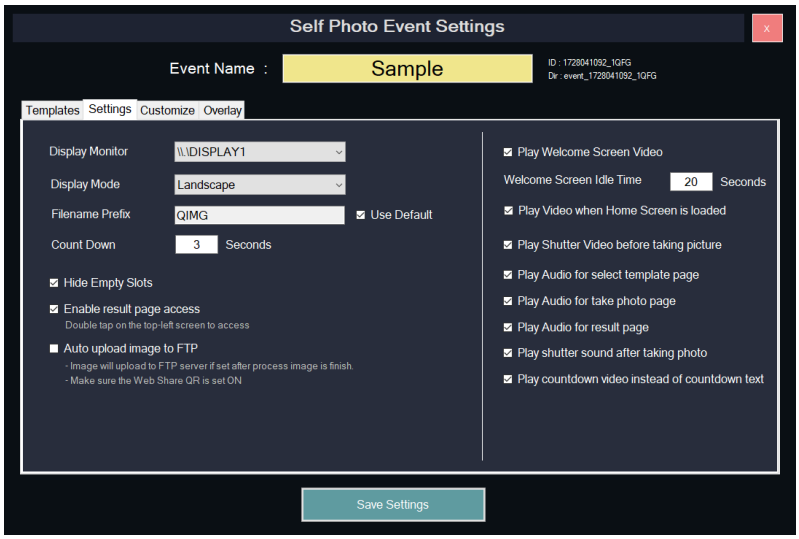
- Ensure your camera is properly configured for tethering and liveview (refer to the camera-specific instructions in the G section).
- Ensure that you already setup the template slots in Self-Photo.

Click Plus button to add new event and click the Pencil button to edit existing event.

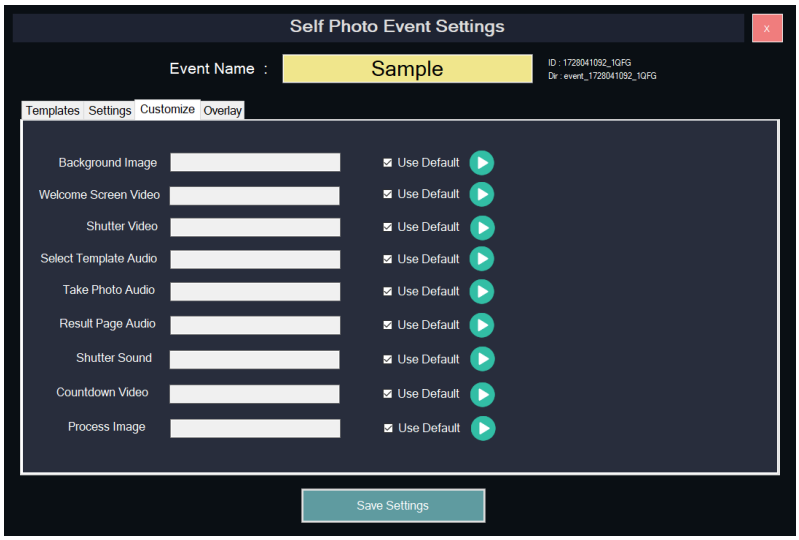
On Templates tab, you can configure the slots for the Self-Photo session. Click on Add Slot for adding a new slot.

Select the Savefile that you save from the AI Studio interface, you can give a custom preview image and caption.

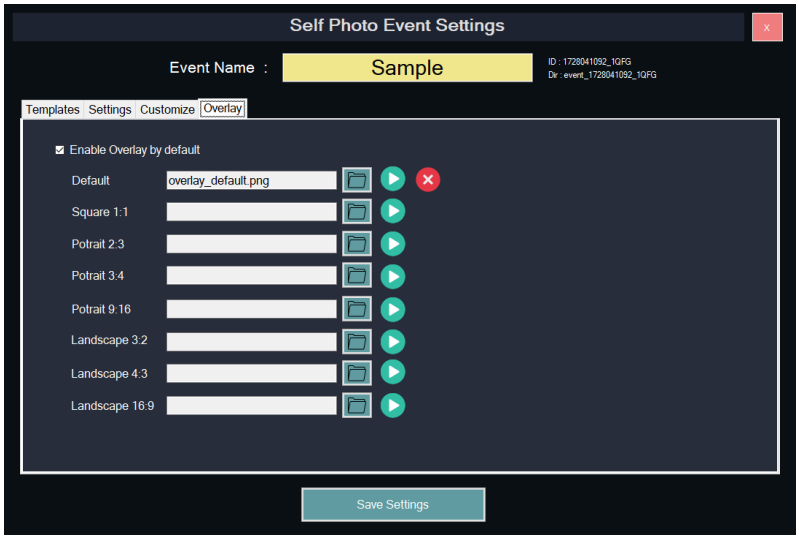
The Settings tab contains various settings for the Self-Photo session. Here you can change the countdown time, display mode, output monitor, etc.



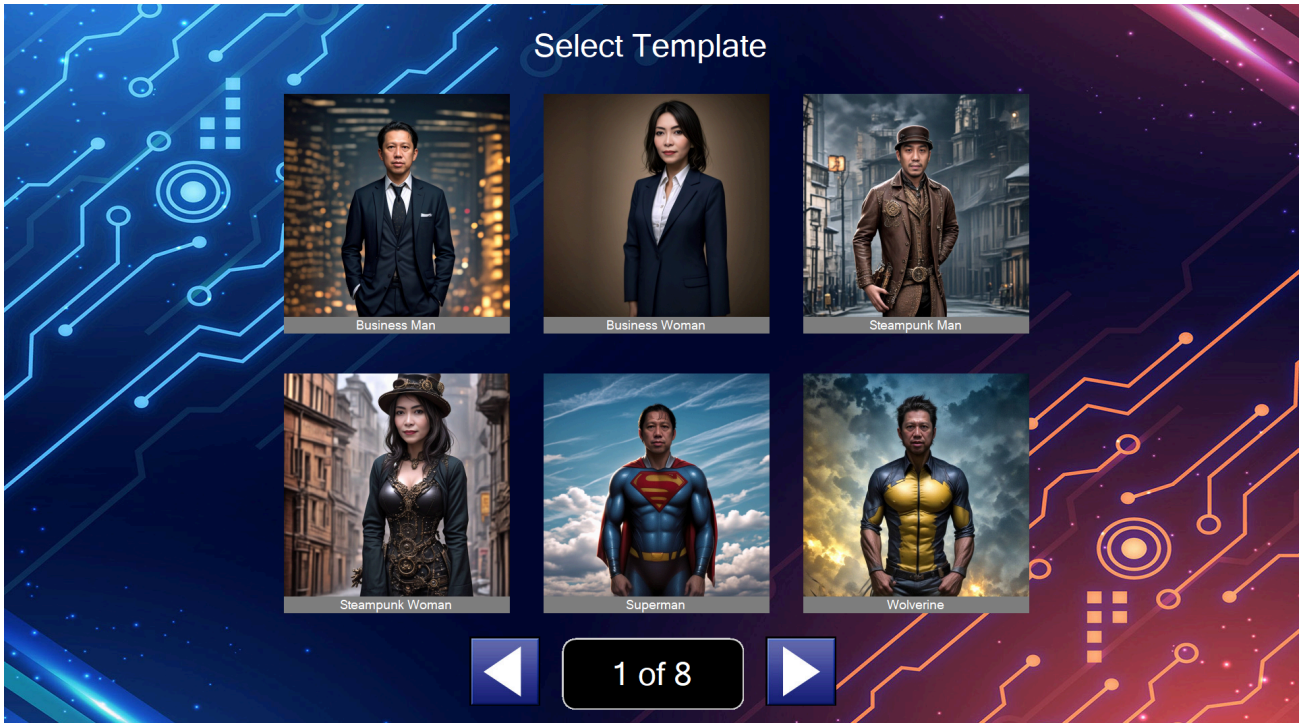
On the Customize tab, you can change the background image, welcome videos, processing animation (animated GIF), etc.



On the Overlay tab, you can customize the overlay image using your own custom PNG transparent file.

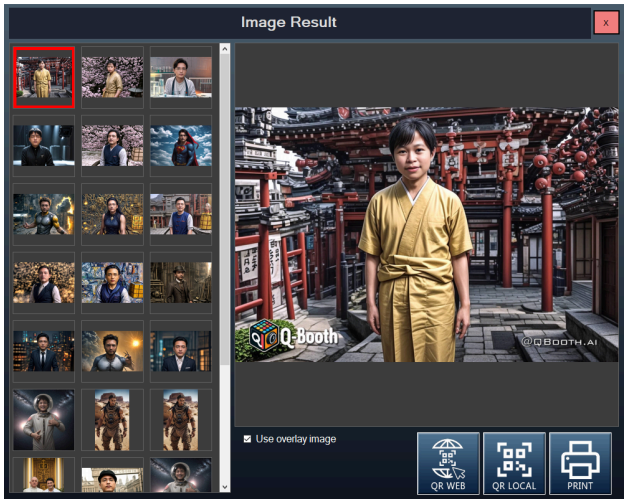


When all set, launch the event. You will see the Self-Photo interface with the slots.



To open the generated results, you can double-tap on the top-left corner of the screen to open mini-gallery window.

To exit the Self-Photo interface, double-tap on top-right corner area of the screen or press **Shift + F4**.



F. Automation

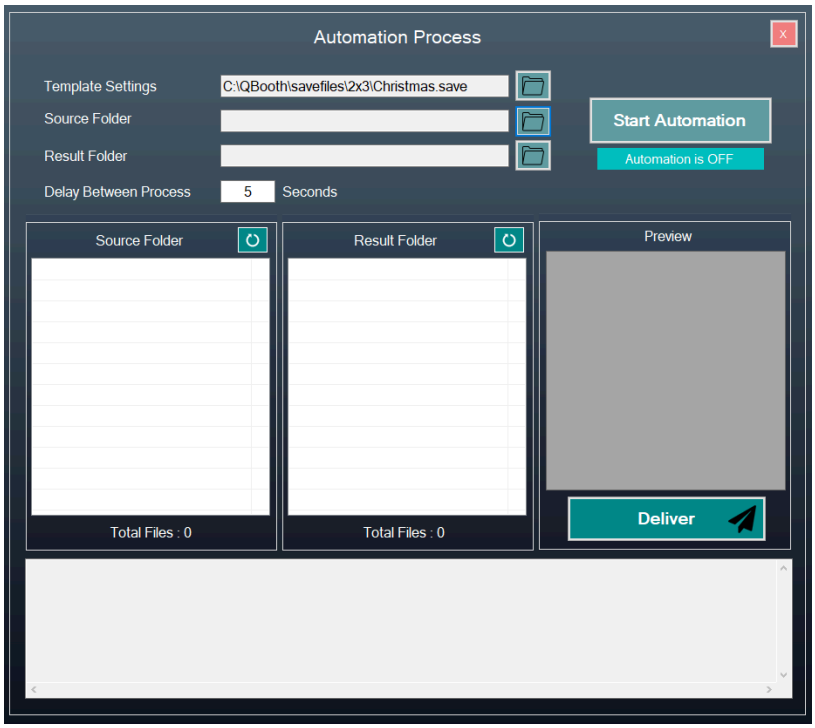
Automation in QBooth, our AI photobooth software, allows you to batch process multiple images with ease. It Lets you apply the same settings to many photos automatically, saving time and ensuring consistency. Here's a quick guide to get you started:

1. Setting Up Automation

- Select Template Settings (.save) File:
  - Choose the .save file from AI Studio that contains your desired settings.
- Source and Result Folders:
  - **Source Folder:** Enter the path where your original images are stored.
  - **Result Folder:** Enter the path where processed images will be saved.
- Delay Between Processes:
  - Set a delay (in seconds) between processing each image to manage system load.

2. Running Automation

- Click `Start Automation` to begin processing images in the source folder using the selected template settings. Processed images will be saved to the result folder.
- Click `Stop Automation` to halt the batch processing at any time.

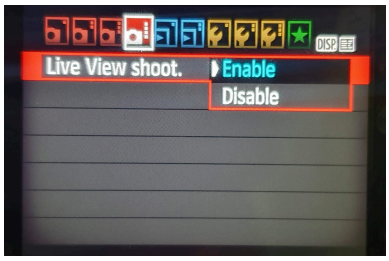


G. Camera Operation

Connecting Canon Camera to Q-Booth

For those using Canon cameras, here are a few extra tips to ensure smooth operation:

- Ensure the EOS Utility software (or any other software using Canon SDK) is not connected to the camera.
- Make sure the camera has an **SD card inserted**.
- Set Live View to ENABLE.
- Adjust the aspect ratio on the camera to 3:2.
- Use good quality USB cable.



These settings will allow Q-Booth to use Canon cameras in liveview mode and take pictures and download it directly to cam_output folder.

Connecting to Cameras Beyond Supported Canon Cameras via Tethering Software

QBooth is designed to seamlessly connect with most Canon cameras from recent years. If your camera isn't directly supported, don't worry, there's still a way to make it work. Follow these steps:

1. **Initial Setup:** Launch QBooth, navigate to settings, and take note of the work_folder directory.
2. **Connect Your Camera:** Use a USB cable to connect your camera to your computer.
3. **Tethering Software:** Open the software that came with your camera and set it up to tether to your laptop, ensuring that pictures are downloaded to the same data folder used by QBooth (Settings > Work Folder). Alternatively, you can use Adobe Lightroom, Canon EOS Utility, or other compatible tethering software.

Specific Camera Instructions:

- **Canon Cameras:** If your Canon camera isn't directly supported, you can use the EOS Utility, which is free software provided by Canon. Follow the setup instructions to connect your camera to your laptop. Ensure the Destination Folder is the same as the Data Folder in QBooth.
- **Pentax Cameras:** Pentax users can use third-party free software like PK_Tether or Pentax Remote Assistant. Set the Destination Folder to match the Data Folder in QBooth.

- **Sony Cameras:** Sony users with cameras compatible with Remote Camera Control (Part of Sony Imaging Edge) can use this software to download pictures to QBooth's Data Folder.
- **Nikon Cameras:** For Nikon users, NX Tether is a great option. It's a free, easy-to-use software that allows you to tether your Nikon camera to a computer, either wirelessly or via a wired connection.
- **Fujifilm Cameras:** Fujifilm users can utilize Fujifilm X Acquire. This software allows you to connect your camera via USB or Wi-Fi and automatically download photos to a specified folder as they are taken.
- **Olympus Cameras:** For Olympus cameras, OM Capture is the go-to tethering application. It connects compatible OM SYSTEM (Olympus) products to a computer, allowing you to control the shutter release, camera settings, and photo transfer either from the camera or the computer.
- **Lumix Cameras:** Lumix users can rely on LUMIX Tether. This software allows you to control various camera settings and record remotely, saving images directly to your PC.

Note: By default, the Data Folder is set to **<QBooth Folder>\work_folder**

Q-Booth will now read and process the images in that directory.

Limitations:

When using third-party software, QBooth won't be able to communicate directly with your camera, meaning you won't be able to use direct liveview from the camera to Q-Booth. If you want liveview with those cameras, you can try connecting them as webcam, using USB HDMI Capture device. You can still trigger the camera using the shutter button or a camera remote.

Canon DSLR Cameras:

- Canon EOS R7, R8, R10, R50 (v7)
- Canon EOS R6 Mark II (v7)
- Canon R100 (v7)
- Canon M50 Mark II/Kiss M II
- Canon EOS-1D X Mark III
- Canon EOS R6
- Canon EOS R5
- Canon EOS RP
- Canon EOS Ra
- Canon EOS R
- Canon EOS M6 Mark II
- Canon EOS 1D C
- Canon EOS-1D X Mark II
- Canon EOS-1D Mark III / EOS 1D X
- Canon EOS-1Ds Mark III
- Canon EOS-1D Mark IV
- Canon EOS 5D Mark II/Mark III, IV
- Canon EOS 5DS, 5DS R
- Canon EOS 6D Mark II
- Canon EOS 6D
- Canon EOS 7D / 7D Mark II
- Canon EOS 80D

- Canon EOS 70D
- Canon EOS 77D
- Canon EOS 90D
- Canon EOS 60D/60Da, 50D, 40D* (See note below)
- Canon EOS Rebel T8i / 850D / Kiss X10i
- Canon EOS Rebel SL3 / EOS 250D / Kiss X10 / EOS 200D Mark II
- Canon EOS Rebel T7i / 800D / Kiss X9i
- Canon EOS Rebel SL2 / 200D / Kiss X9
- Canon EOS Rebel SL3 / 250D / 200D II
- Canon EOS Rebel T6s / 760D / 8000D
- Canon EOS Rebel T6i / 750D / Kiss X8i
- Canon EOS Rebel T6 / 1300D / Kiss X8
- Canon EOS Rebel T5 / 1200d / Kiss X7
- Canon EOS Rebel T4i / 650d / Kiss X6i
- Canon EOS Rebel T3i / 600d / Kiss X5
- Canon EOS Rebel T3 / 1100d / Kiss X50
- Canon EOS Rebel XS / 1000D / Kiss F
- Canon EOS Rebel T2i / 550D / Kiss X4
- Canon EOS 9000D / EOS 77D
- Canon EOS M50 / EOS Kiss M
- Canon EOS T100 / 4000D / 3000D
- Canon PowerShot SX70 HS

The following cameras will work but are not recommended for professional use as they have been found not to be reliable:

- Canon EOS T7 / 2000D / 1500D / Kiss X90 - Not recommended for professional use as the camera overheats.
- Canon EOS Rebel T1i / 500D / Kiss X3
- Canon EOS Rebel XSi / 450D
- Canon EOS 400D/Rebel XTi (does not support Live View)
- Canon EOS 100D / SL1 (Has occasional hang-up issues caused by the camera).
- Canon PowerShot G7X Mark III (No AC adapter available).
- Canon PowerShot G5X Mark II (Customer reported as not working).
- Canon EOS Rebel T5i / 700D / Kiss X7i (Live View is lagging)
- Canon EOS 60D/60Da, EOS 50D, EOS 40D, EOS T3, and other Canon DSLR cameras older than 2013 cannot set manual camera settings while recording video. Video will be recorded in auto exposure set by the camera. This might be fine for customers who only do photo and not video booths. Video will be recorded with the white balance set in the video settings for Canon 60D.

H. Prompting

Prompts are best written in English, with comma-separated keywords. There are some things to master when writing prompts:

Weighting Syntax:

- keyword:value (Colon Syntax):
  - Directly controls the importance of a word or phrase.
  - value 1 = normal weight, >1 = more important, <1 = less important, 0 = no effect.
  - **Examples:**
    - red dress:1.5 (emphasizes "red dress")
    - blue sky:0.7 (de-emphasizes "blue sky")
    - tree:2 (makes tree very important)
- (keyword) (Parentheses):
  - Groups words together, implies a slight increase in importance.
  - **Examples:**
    - (beautiful sunset) (groups "beautiful sunset" and gives it slight emphasis)
- (keyword:value) (Parentheses with Value):
  - Groups words together, and sets the importance of that group using value.
  - **Examples:**
    - (detailed face:1.3) (groups "detailed face" and emphasizes it with weight 1.3)
    - (old building:0.6) (groups "old building" and de-emphasizes it with weight 0.6)
- ((keyword)) etc. (Nested Parentheses):
  - Groups with multiple layers, each layer increases importance (implied weighting).
  - Estimates: ()= ~1.1, (())= ~1.2-1.3, ((()))= ~1.3-1.4 etc. (approximate, model dependent).
  - **Examples:**
    - ((vibrant colors)) flowers (emphasizes "vibrant colors" more than "flowers")
    - (((mountain landscape))) forest (emphasizes "mountain landscape" strongly)

Key Differences:

1. : (colon): Direct and precise control of weight.
2. () (parentheses): Groups words, can give them slight or specific weight.
3. (()), ((())) etc.: Groups with layers, creating a tiered emphasis.

When to Use Which:

- Use :value: to precisely set the weight of a specific word or phrase.
- Use (): to group related words or phrases.
- Use () with :value: to group and also set weight.
- Use nested parentheses (( )): to create tiered emphasis.

Important Notes:

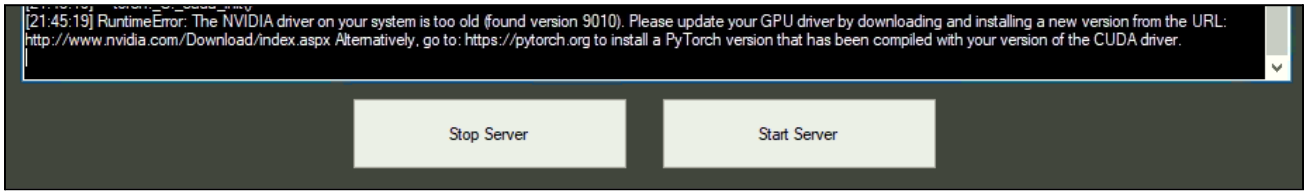
- You can mix and match all of these methods. **Example:** ((detailed face:1.5)) and (red hair:1.3), (blue dress) in a (fantasy forest:0.8)
- The ideal weights often require experimentation.
- Parentheses make complex prompts more organized.
- Weights represent the model's priorities.

Key Points:

- : (colon) = sets the direct weight of a term.
- () (parentheses) = groups terms, may give a slight increase of weight.
- (()), ((())) (nested parentheses) = groups terms with tiered emphasis.
- :value provides precision, () is more convenient for levels.

I. Troubleshooting

1. GPU Driver is Too Old



If you see a message indicating your GPU driver is too old, update your NVidia GPU driver:

Steps to Update NVidia GPU Driver:

1. Identify Your GPU Model:
    - Press `Win + R`, type `dxdiag`, and press Enter.
    - Check the `Display` tab for your GPU model.
2. Download the Latest Driver:
    - Visit the NVidia Driver Download page.
    - Enter your GPU model and OS details, then download the latest driver.
3. Install the Driver:
    - Run the installer, follow the instructions, and restart your computer.

Updating your GPU driver ensures QBooth can utilize the latest features and performance improvements.

2. Server Loading Failed (No CUDA core found)

Please check your BIOS settings and activate the discrete GPU (NVidia). On some laptops, it tends to use the internal Intel GPU instead of the NVidia GPU.

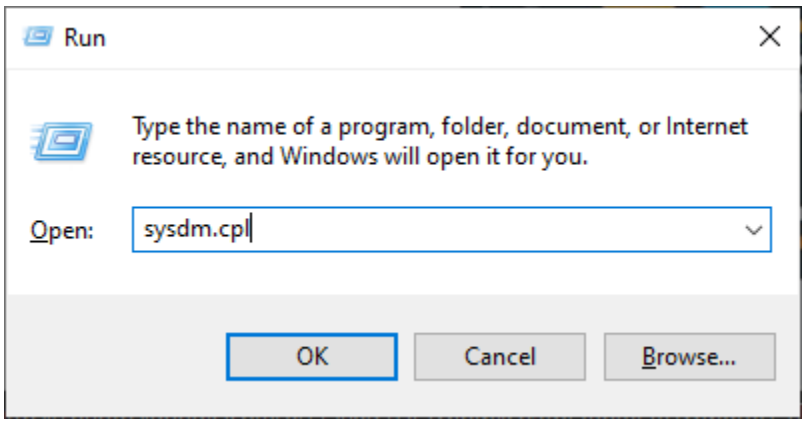
3. Out of Memory

If you encounter an “Out of Memory” error while using QBooth, increasing the pagefile size on your computer can help. The pagefile, also known as the virtual memory, acts as an extension of your computer’s physical memory (RAM). Here’s how to increase the pagefile size:

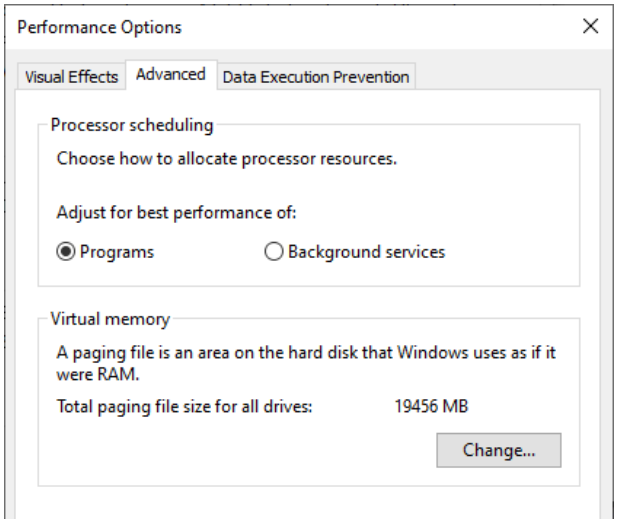
Steps to Increase Pagefile Size

1. Open System Properties:

- Press `Win + R` to open the Run dialog box.
- Type `sysdm.cpl` and press Enter.

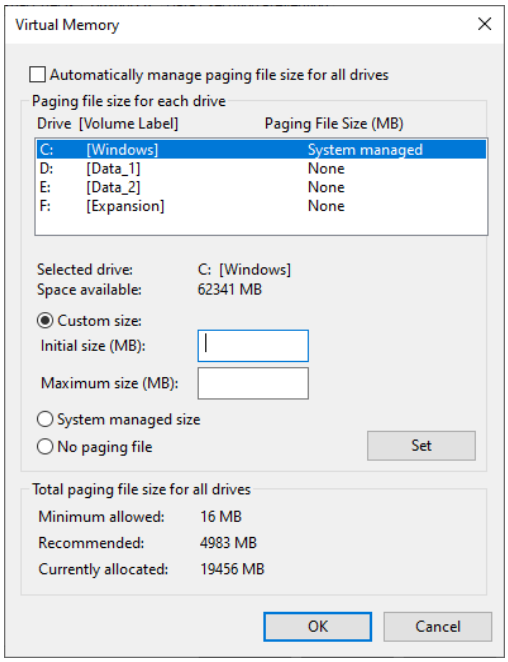


2. Access Performance Options:
   - In the System Properties window, go to the `Advanced` tab.
   - Under the Performance section, click on `Settings`.



3. Adjust Virtual Memory:
   - In the Performance Options window, go to the `Advanced` tab.
   - Under the Virtual Memory section, click on `Change`.
4. Modify Pagefile Settings:
   - Uncheck the box that says `Automatically manage paging file size for all drives`.
   - Select the drive where you want to increase the pagefile size (usually C:).
   - Choose `Custom size` and enter the initial and maximum size in megabytes (MB). A good rule of thumb is to set the initial size to 1.5 times your RAM and the maximum size to 3 times your RAM.

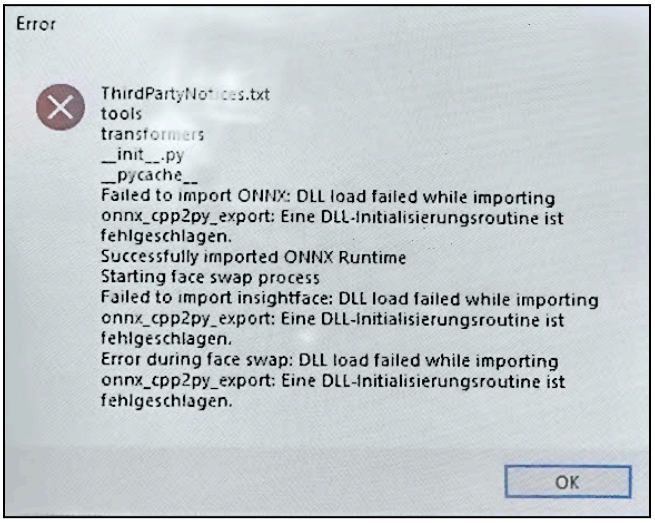
- For example, if you have 8GB of RAM (8192 MB), set the initial size to 12288 MB and the maximum size to 24576 MB.



5. Apply and Restart:
    - Click `Set`, then OK to apply the changes.
    - Restart your computer for the changes to take effect.

4. QBooth CPU Facewap Error When Processing

"Failed to import ONNX: DLL load failed while importing onnx_cpp2py_export", this can be fixed by installing Visual C++ Redistributable from:
https://learn.microsoft.com/en-us/cpp/windows/latest-supported-vc-redist



5. Welcome Video Not Played

If you see black blank screen when launching the Self-Photo event, it might be caused by the welcome video failure to play. You can try changing the media player library in Global Settings (Others Tab). There are two media libraries available: Windows Media Player and VLC. You can select one of these and see which one runs well on your system.