# Photon CLI

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# Chapter 1

# Command-line Interface (CLI)

Photon-v2 comes with an application called PhotonCLI, which is a command-line interface of the render engine. Command-line interface can come in handy if you are batch rendering or using it on a remote server. It also, in theory, offers slightly better performance in terms of render time. This is a documentation of available options and some examples. Check out PhotonStudio if you are more interested in using a GUI.

## 1.1 Available Options

| Options | Effects |
|---|---|
| -s <path> | Specify path to scene file. To render an image series, you can specify "myScene*.p2" as <path> where * is a wildcard for any string (--series is required in this case). (default path: "./scene.p2") |
| -o <path> | Specify image output path. This should be a filename for single image and a directory for image series. (default path: "./rendered_scene.png") |
| -of <format> | Specify the format of output image. Supported formats are: png, jpg, bmp, tga, hdr, exr. If this option is omitted, format is deduced from filename extension. |
| -t <number> | Set number of threads used for rendering. (default: 1, single thread) |
| -p <number> | Output an intermediate image whenever the render has progressed <number>%. (default: never output intermediate image) |
| --raw | Do not perform any post-processing. (default: perform post-processing) |
| --help | Print help message then exit. |
| --series | Render an image series. The order for rendering will be lexicographical order of the wildcarded string. Currently only .png is supported. |
| --start <*> | Render image series starting from a specific wildcarded string. |
| --finish <*> | Render image series until a specific wildcarded string is matched. (inclusive) |

## 1.2 Examples

All following commands are expected to be executed from the build/install directory.

Rendering a scene file named ./ocean.p2 using 4 threads and save the rendered image as ./my_↩ image.jpg:

```
./bin/PhotonCLI -s "./ocean.p2" -o "./my_image.jpg" -t 4
```

For animations, assuming there is a folder `gif_animation` containing scene files for a 3-frame animation: `pose1.p2`, `pose2.p2`, `pose3.p2`, to render and save the images (.png) to a folder `gif_images`, you can specify:

```
./bin/PhotonCLI -s "./gif_animation/pose*.p2" --series --start "1" --finish "3" -o "./gif_images/" -t 4
```

Note that in the above example, the rendered image will be named by the wildcarded string, namely they are stored as `./gif_images/1.png`, `./gif_images/2.png`, and `./gif_images/3.png`.

An important note is that by default, post effects including tone-mapping is performed. If saving the rendered image in high dynamic range is desired, `--raw` should be specified manually as `PhotonCLI` will *NOT* automatically turn off post-processing by detecting image format.

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