

# POV-Ray Photon Behavior Analyzer — Usage

1. Include the file 'photon\_behavior\_analyzer.pov' at the top of your scene.
2. Mirror your global\_settings photons in PH\_GlobalPhotons(...) for reporting.
3. Register each light and object via PH\_Register\_Light(...) and PH\_Register\_Object(...) using the same flags you use in your photons blocks.
4. Call PH\_Analyze() once. Diagnostics will be printed to the #debug stream.

## Example (copy/paste into your scene):

```
PH_GlobalPhotons( 1, 0.01, 200, 0.50 )
PH_Register_Light( 1, "KeyLight", 1, 0, 1, 0, 0 )
PH_Register_Light( 2, "Laser", 1, 0, 0, 0, 1 )
PH_Register_Object( 10, "GlassSphere", 1, 0, 0, 1, 0, 1, 0, 0, 1.00 )
PH_Register_Object( 11, "MirrorPanel", 1, 1, 0, 0, 0, 1, 0, 0, 1.00 )
PH_Register_Object( 12, "MediaBox", 0, 0, 0, 0, 0, 0, 1, 1, 1.00 )
PH_Analyze()
```

## Notes:

- The analyzer cannot introspect arbitrary objects; you must register flags to match your photons blocks.
- Effective reflection/refraction requires both light and object to be ON (and not OFF). If neither is effective, POV-Ray does not shoot photons for that pair (emulated).
- Pre-target rule: non-pass\_through objects encountered before the target block photons; pass\_through before target tints photons.
- Media photons require global\_settings{ photons{ media ... } } and pass\_through media containers.