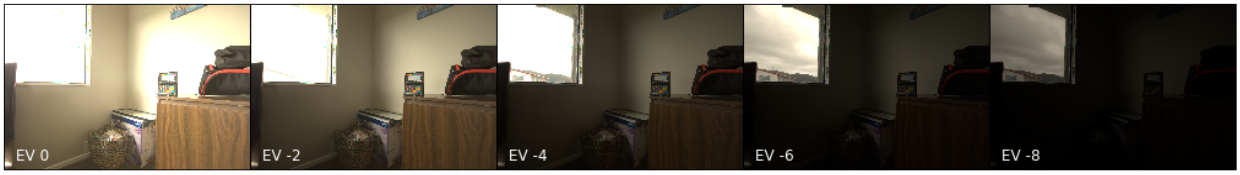
Colour - HDRI Documentation

Release 0.1.1

Colour Developers

Mar 24, 2019

Contents



A Python package implementing various HDRI / Radiance image processing algorithms.

It is open source and freely available under the New BSD License terms.

CHAPTER 1

Features

The following features are available:

- HDRI / Radiance Image Generation
- Debevec (1997) Camera Response Function Computation
- Grossberg (2003) Histogram Based Image Sampling
- Global Tonemapping Operators
- Variance Minimization Light Probe Sampling
- Raw Processing Helpers

CHAPTER 2

Installation

Because of their size, the resources dependencies needed to run the various examples and unit tests are not provided within the Pypi package. They are separately available as Git Submodules when cloning the repository.

2.1 Primary Dependencies

Colour - HDRI requires various dependencies in order to run:

- Python 2.7 or Python 3.5
- NumPy
- OpenImageIO

2.2 Optional Features Dependencies

- colour-demosaicing
- Adobe DNG Converter
- dcraw
- ExifTool
- rawpy

2.3 Pypi

Once the dependencies satisfied, **Colour - HDRI** can be installed from the Python Package Index by issuing this command in a shell:

```
pip install colour-hdri
```

The optional features dependencies are installed as follows:

```
pip install 'colour-hdri[optional]'
```

The figures plotting dependencies are installed as follows:

```
pip install 'colour-hdri[plotting]'
```

The tests suite dependencies are installed as follows:

```
pip install 'colour-hdri[tests]'
```

The documentation building dependencies are installed as follows:

```
pip install 'colour-hdri[docs]'
```

CHAPTER 3

Usage

3.1 API

The main reference for Colour - HDRI is the complete Sphinx API Reference:

- API Reference

3.2 Examples

Various usage examples are available from the examples directory.

CHAPTER 4

Contributing

If you would like to contribute to Colour - HDRI, please refer to the following Contributing guide for Colour.

CHAPTER 5

Bibliography

The bibliography is available in the repository in either BibTeX format or reStructuredText.

CHAPTER 6

About

Colour - HDRI by Colour Developers

http://github.com/colour-science/colour-hdri