
pyastrometry

Release 0.1

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Oct 29, 2020

CONTENTS:

1	Using pyastrometry_cli_main.py	1
1.1	Introduction	1
1.2	Invocation	1
1.3	Command Details	1
1.4	Using an astrophile	3
2	Indices and tables	5

USING PYASTROMETRY_CLI_MAIN.PY

1.1 Introduction

The script “pyastrometry_cli_main.py” handles taking an image and plate solving it to find the current position of the mount.

1.2 Invocation

The invocation of autofocus_auto_star.py is:

```
usage: pyastrometry_cli <operation> [<args>]

The accepted commands are:
  solvepos      Take an image and solve current position
  solveimage <filename>  Solve position of an image file
  sync          Take an image, solve and sync mount
  slewsolve <ra> <dec>  Slew to position and plate solve and slew until within
↳threshold

Astromentry CLI

positional arguments:
  operation  Operation to perform

optional arguments:
  -h, --help  show this help message and exit
```

1.3 Command Details

solvepos: Takes an image with the camera and solves it. Drivers can be specified via a astroprofile or command line arguments.

```
usage: pyastrometry_cli solvepos [<args>]

Solve Parameters

optional arguments:
  -h, --help          show this help message and exit
  --profile PROFILE    Name of astroprofile
```

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```
--mount          Name of mount driver
--camera         Name of camera driver
--exposure       Exposure time
--binning        Camera binning
--solver SOLVER  Solver to use
--pixelscale PIXELSCALE
                  Pixel scale (arcsec/pixel)
--downsample DOWNSAMPLE
                  Downsampling
--outfile OUTFILE Output JSON file with solution
--force          Overwrite output file

Valid solvers are:
    astrometryonline
    astrometrylocal
    platesolve2
```

solveimage: Solves an existing image.

```
usage: pyastrometry_cli solveimage <filename> [<args>]

Solve Parameters

optional arguments:
  -h, --help          show this help message and exit
  --profile PROFILE    Name of astro profile
  --solver SOLVER      Solver to use
  --pixelscale PIXELSCALE
                      Pixel scale (arcsec/pixel)
  --downsample DOWNSAMPLE
                      Downsampling
  --outfile OUTFILE    Output JSON file with solution
  --force             Overwrite output file

Valid solvers are:
    astrometryonline
    astrometrylocal
    platesolve2
```

sync: Takes an image with the camera and solves it and syncs mount to solution.

```
usage: pyastrometry_cli sync [<args>]

Solve Parameters

optional arguments:
  -h, --help          show this help message and exit
  --profile PROFILE    Name of astroprofile
  --mount             Name of mount driver
  --camera            Name of camera driver
  --exposure          Exposure time
  --binning           Camera binning
  --solver SOLVER      Solver to use
  --pixelscale PIXELSCALE
                      Pixel scale (arcsec/pixel)
  --downsample DOWNSAMPLE
                      Downsampling
```

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```

--outfile OUTFILE      Output JSON file with solution
--force                Overwrite output file

Valid solvers are:
  astrometryonline
  astrometrylocal
  platesolve2

```

slewsolve: Given an RA/DEC position slew to that position and refine slew using plate solving.

```

usage: pyastrometry_cli slewsolve <ra> <dec> [<args>]

Solve Parameters

optional arguments:
  -h, --help            show this help message and exit
  --profile PROFILE      Name of astroprofile
  --mount                Name of mount driver
  --camera                Name of camera driver
  --exposure              Exposure time
  --binning               Camera binning
  --solver SOLVER         Solver to use
  --pixelscale PIXELSCALE
                        Pixel scale (arcsec/pixel)
  --downsample DOWNSAMPLE
                        Downsampling
  --outfile OUTFILE      Output JSON file with solution
  --force                Overwrite output file

Valid solvers are:
  astrometryonline
  astrometrylocal
  platesolve2

```

1.4 Using an astroprofile

If specified an astroprofile will be used to get camera and mount driver information as well as the pixelscale used for platesolving.

INDICES AND TABLES

- `genindex`
- `modindex`
- `search`