

---

# **python-metar Documentation**

***Release 2.0.dev***

**Tom Pollard, Paul Hobson**

November 10, 2015



<b>1</b>	<b>Basic History</b>	<b>3</b>
<b>2</b>	<b>Dependencies</b>	<b>5</b>
<b>3</b>	<b>Installation</b>	<b>7</b>
<b>4</b>	<b>Testing</b>	<b>9</b>
<b>5</b>	<b>Contents:</b>	<b>11</b>
5.1	<code>metar.station</code> . . . . .	11
5.2	Data Visualization . . . . .	11
5.3	Formatted Output . . . . .	11
5.4	Low-level API . . . . .	11
5.5	Datatypes . . . . .	11
<b>6</b>	<b>Indices and tables</b>	<b>13</b>



`python-metar` is a library suited to parsing weather data in the METAR format. METAR is kind of a mess and not very human-readable. Hopefully this makes things a bit easier. What appears to be an official spec on the format can be found [here](#).



---

### Basic History

---

Tom Pollard originally wrote `python-metar` to parse weather hourly reports as they were posted to the web. That basic functionality still exists in this fork. Building on top of his original work, this fork aims to provide convenient classes methods and to download data in bulk from various sources, store in them nice `data structures`, and easily make usefule visualizations of that data.

You can download my fork of the repoository from [Github](#).





---

## Dependencies

---

- Python 2.7 or 3.3 (might work on 3.4)
- six for Python 2.7, 3.3 interoperability
- pip for installation
- recent versions of pandas, matplotlib
- requests for hitting the NOAA web API
- ipython-notebook for running examples (optional)
- nose and coverage for testing (both optional)
- sphinx to build the documentation (optional)

If you're using [environments](#) managed through `conda` (recommended), this will get you started:

```
conda create --name=metar python=3.3 ipython-notebook pip nose pandas matplotlib six requests coverage
```

Followed by:

```
source activate metar # (omit "source" on Windows)
```



---

### Installation

---

- Activate your `conda` environment;
- Clone my fork from Github;
- Change to that resulting directory;
- Install via `pip`; and
- Back out of that directory to use

```
source activate metar # (omit "source" on Windows)
git clone https://github.com/phobson/python-metar
cd python-metar
pip install .
cd ../../
```



---

**Testing**

---

Tests are run via nose. Run them all with:

```
source activate metar # (omit "source" on Windows)
python -c "import metar; metar.test() "
```

You can get fancy with:

```
python -c "import metar; metar.test(verbose=2, packageinfo=True, coverage=True) "
```



---

**Contents:**

---

**5.1 `metar.station`**

**5.1.1 WeatherStation**

**5.1.2 Helper Functions**

**5.2 Data Visualization**

**5.2.1 Precipitation**

**5.2.2 Barometric Pressure**

**5.2.3 Temperature**

**5.2.4 Wind**

**5.3 Formatted Output**

**5.4 Low-level API**

**5.5 Datatypes**





---

## Indices and tables

---

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