
Tungsten Documentation

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CONTENTS

INSTALLATION

```
pip install tungsten
```

Tungsten has been tested on 2.x Python

QUICKSTART

From here, operating Tungsten is as easy as creating a Tungsten client object (requires an appid) and running a query.

```
import tungsten

client = tungsten.Tungsten('appid')
result = client.query('pi')
```

Additional query parameters (query parameter documentation on the [Wolfram Alpha API documentation](#)) can also be passed to the query using a dictionary:

```
params = {'format': ['plaintext', 'image', 'minput', 'moutput'],
          'scanner': 'numeric',
          'parsetimeout': 10}
result = client.query('rref {{1,2},{3,4}}', params)
```

Query will always return a result object which has a few properties to report if the query was unsuccessful.

The Result object also stores a list of all the pods returned by the query. These pods are the individual result sections returned by Wolfram Alpha, seperated by type of response. For example, query('pi') returns seperate pods for the number line, decimal approximation and so on.

```
result.success
# True
result.error
# None

result.pods
# List of pods
```

Each Tungsten Pod object has a few properties to identify it (title, id, scanner) and supports any available format using another property, format.

```
pod.title
# Decimal approximation
pod.id
# DecimalApproximation
pod.scanner
# Numeric
```

The format property returns a dictionary of available formats as keys, key corresponding to a list of the format's values (format type documentation on [Wolfram Alpha API Documentation](#)).

For example, pod.format['plaintext'] will return a list of every plaintext content in the pod.

```
# List all the available formats
pod.format.keys()

# Get a list of the mathematica input format (if available)
pod.format.get('minput', [])
```

There is special handling for the image to package all information.

```
img_list = pod.format['img']
img = img_list[0] # format still returns a list even when only 1 object is available

# Available properties
img['url']
img['alt']
img['title']
img['width']
img['height']
```


CONTRIBUTE

Tungsten is hosted on [Github](#), just fork the repo and start coding, there's plenty of room for development.