

MotM - ArgParse

Cameron Goodale

@sigep311

Github: http://bit.ly/iepug_argparse

IE Python User Group

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Outline

ArgParse Information

Command Line Interface (CLI)

Argument Types

Demo

ArgParse Information

Available in Python ≥ 2.7

API:

<http://docs.python.org/2/library/argparse.html>

Tutorial:

<http://docs.python.org/2/howto/argparse.html>

Command Line Interface

Simple way to pass arguments to a program

```
cp file1 file2
```

```
python my_program.py arg1 arg2 argn
```

Access via `sys.argv`

```
>>> print sys.argv
```

```
['my_program.py', 'arg1', 'arg2', 'argn']
```

Argument Types

Positional

Position matters. Think mv and cp (src dest)

Optional (Flags)

Position shouldn't matter.

Request extra functionality. Is -alhtr

Argument Types Continue

Default data type is <type 'str'>

If you want anything else you have to cast it

```
int(sys.argv[1])
```

```
float(sys.argv[1])
```

```
dict(sys.argv[1])
```

Demo

- script0.py - Script with hardcoded values no cli
- script1.py - Using sys.argv but forgot to cast
- script1-fixed.py - Added an int cast to script1.py
- script2.py - Added try/except blocks
- script3.py - First use of ArgParse Module
- script4.py - Added type=int for casting

Demo

script5.py - Added help to arguments

script6.py - Added --middle optional arg, but not used

script7.py - Wired up the optional --middle value

script8.py - Limited the choices for the times value