The Open Source Workshop

A hands-on introduction to the tools of open source development

http://openhatch.org/wiki/Open_Source_Workshop
Bonus installation

- Code-friendly text editor:
  - Windows: Notepad++
  - OSX: Smultron
  - Linux, you already have gedit

- Python 2.7:
Tonight

- Interactive lecture
  - what is open source?
  - the life cycle of a project bug
  - creating and submitting patches to bug trackers
  - revision control

- IRC

- OpenHatch missions: diff, patch, git

- Bug tracker missions

- Wrap-up and next steps
What is open source?

- And the many ways to contribute

Python

Gwibber

OpenHatch

Fedora

Django

Tahoe-LAFS

Sugar Labs
Life cycle of a project bug

- Releases
- What makes a good bug report?
- Report
- Triage
- Patch
- Review
- Testing
- Resolution
Bug trackers

- Example tracker: http://twistedmatrix.com/trac/report
- The patch-submitter perspective
- The reviewer/committer perspective

- diff demo
- patch demo
Revision control

- git demo
- git diff
- good commit messages

- git clone
- git diff
- git status
- git add
- git commit
IRC

• Nicks
• Etiquette
• Privmsgs
• Ops
• Pastebin

• irc.freenode.net
• #open-source-workshop
IRC bonus material

- Find a channel for a topic you care about and join it
- Start your own channel
- go through an IRC tutorial: http://www.irchelp.org/irchelp/irctutorial.html
OpenHatch missions

- Create an OpenHatch account: http://openhatch.org
- Complete first 2 sections of diffpatch mission http://openhatch.org/missions/diffpatch
- Complete http://openhatch.org/missions/git
  - Windows: Start->Programs->Git->Git Bash
OpenHatch missions bonus material

• Do the tar mission
  http://openhatch.org/missions/tar

• Finish the diff and patch mission
  http://openhatch.org/missions/diffpatch

• go through a full git tutorial:
  http://learn.github.com/p/intro.html
Bug tracker mission


- 4 issues:
  - The width and height options to the ColorWall are flipped
  - ascii8x8.py is missing upper-case X, Y, and Z
  - A dimensions check is missing in LetterTest that causes it to crash on walls smaller than 8x8
  - Feature request: new ColorWall effect

- 2 sides: patch creator and patch applier
The width and height options to the ColorWall are flipped

```python
def __init__(self, width, height):
    self.width = width
    self.height = height
    self._tk_init()
    self.pixels = [(0, 0, 0) for i in range(self.width * self.height)]
```

ascii8x8.py is missing upper-case X, Y, and Z

A dimensions check is missing in LetterTest that causes it to crash on walls smaller than 8x8

localhost:color-wall jesstess$ python run.py -w 2
LetterTest
Traceback (most recent call last):
  File "run.py", line 32, in <module>
    new_effect.run()
  File "/Users/jesstess/dev/color-wall/effects.py", line 349, in run
    x_offset, y_offset)
  File "/Users/jesstess/dev/color-wall/ascii8x8.py", line 19, in draw_chr
    wall.set_pixel(x + x_offset, y + y_offset, background)
  File "/Users/jesstess/dev/color-wall/wall.py", line 56, in set_pixel
    self.pixels[self.width * y + x] = hsv
IndexError: list assignment index out of range

Feature request: new ColorWall effect

Wrap-up!
What's next?

- Find a project!
- OpenHatch.org
- #openhatch on Freenode
- SIPB projects
  http://sipb.mit.edu/projects/
- Google Summer of Code
- open-source-workshop@mit.edu
- Boston Python Meetup:
  http://meetup.bostonpython.com
What's next?

- Python Core Mentors: http://pythonmentors.com/
- Debian Mentors: http://lists.debian.org/debian-mentors/
- Fedora Mentors: http://fedoraproject.org/wiki/Mentors
More Cluedumps!

- http://cluedumps.mit.edu/
- Upcoming talks:
  - Bitcoin
  - Understanding PGP and Using GPG
  - Why learn Haskell?
  - Getting Started With Debathena Development