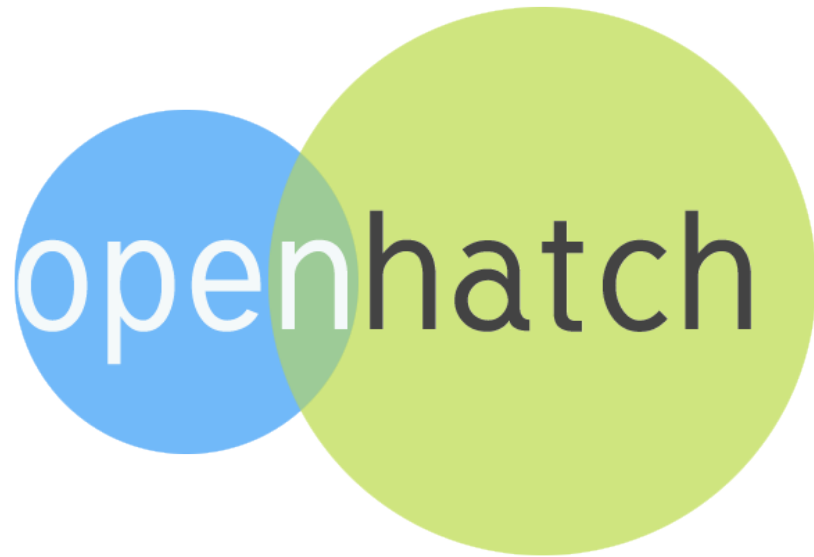
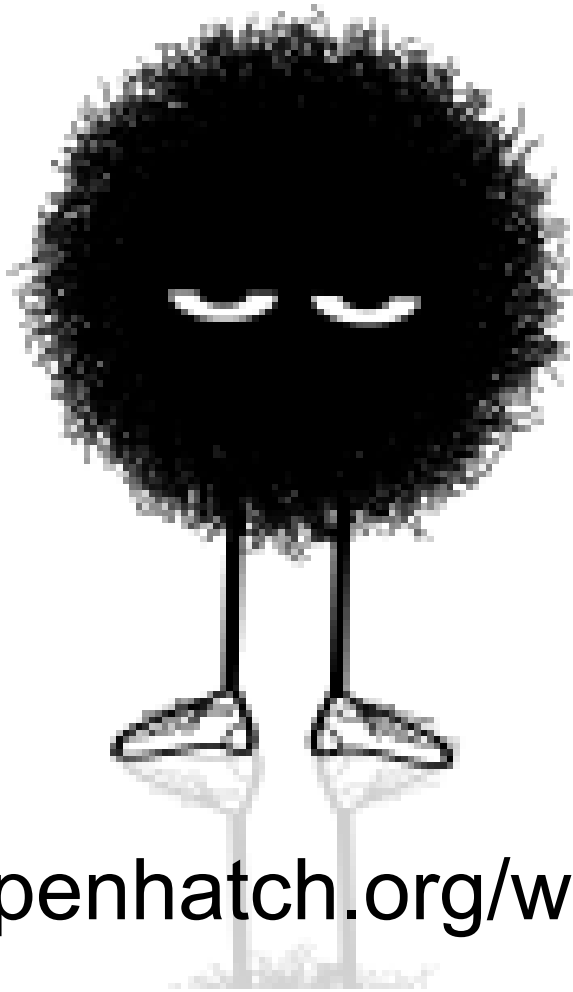


The Open Source Workshop

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



http://openhatch.org/wiki/Open_Source_Workshop

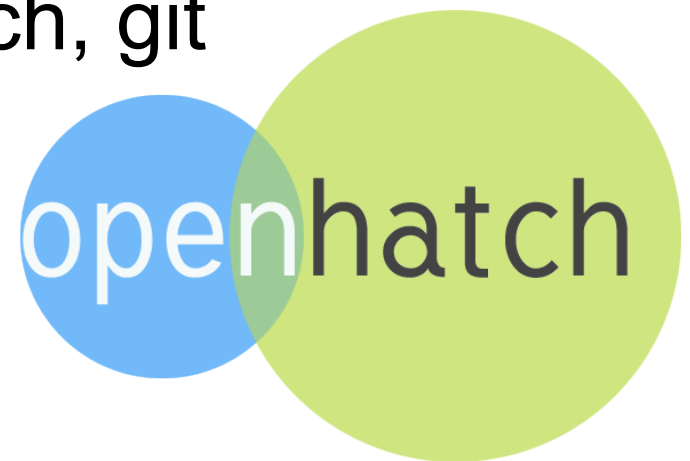
Bonus installation

- Code-friendly text editor:
 - Windows: Notepad++
 - OSX: Smultron
 - Linux, you already have gedit
 - Follow your OS instructions at:
<http://bit.ly/osw-text-editor>
- Python 2.7:
 - Follow your OS instructions at:
<http://bit.ly/osw-python>



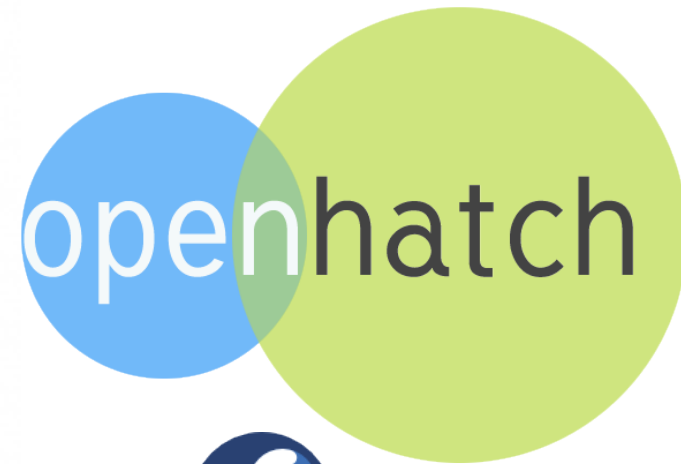
Tonight

- 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?

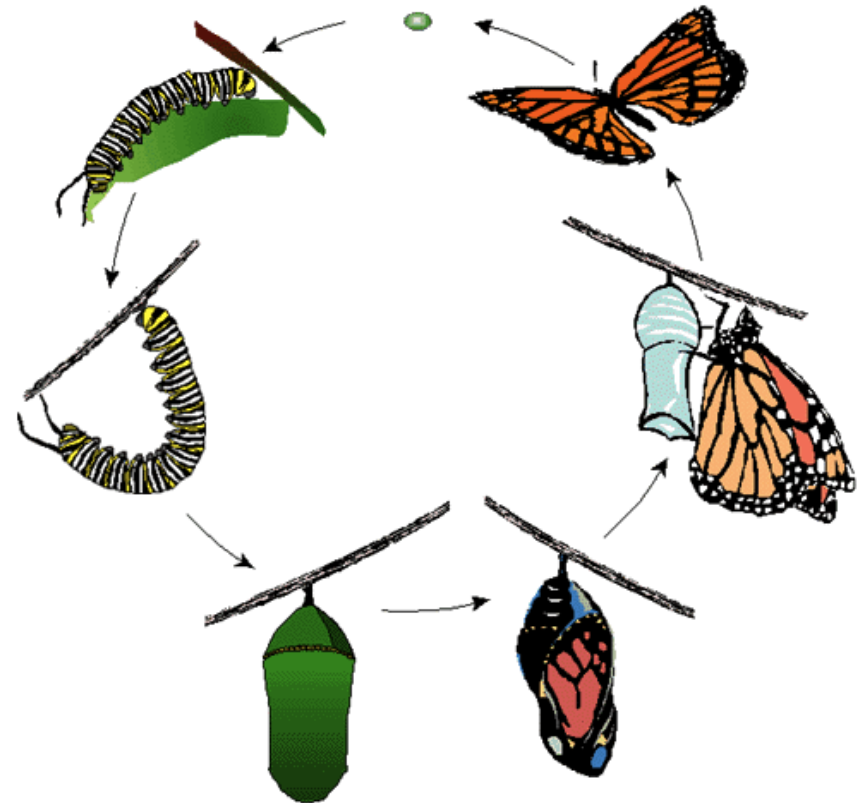
- And the many ways to contribute



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/commmitter perspective

- diff demo
- patch demo

#2611	Protocols in twisted.protocols.basic use $O(n^2)$ complexity	core
#3582	Improve SIP URI parsing/formatting	core
#3583	Include SIP message-parsing changes from Sine	core
#3584	SIP transport and transaction layer	core
#1830	Sell the Twisted reference PDF, bound as a physical book	core
#78	abortConnection() method for transports	core
#365	Reactor should track associated sockets separately from read/write state.	core
#401	too many requests handled by banana in one batch	pb
#546	(maybe get rid of tap2deb) tap2deb fails on parsechangelog/debian	releas manag

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](http://irc.freenode.net/#open-source-workshop)

The logo for freenode, featuring the word "freenode" in a lowercase, sans-serif font. The "free" part is white and the "node" part is green, set against a dark gray rectangular background.

freenode

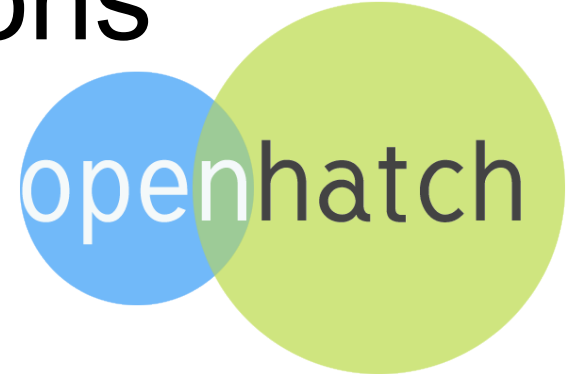
IRC bonus material

- Find a channel for a topic you care about and join it
- Start your own channel
- Register your nick on Freenode:
<http://bit.ly/osw-freenode-nick>
- go through an IRC tutorial:
<http://www.irchelp.org/irchelp/irctutorial.html>

The logo for Freenode, featuring the word "freenode" in a lowercase, sans-serif font. The "free" part is in a light gray color, and the "node" part is in a bright green color. The text is set against a dark gray rectangular background.

freenode

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
- Command-line navigation tutorial:
<http://bit.ly/osw-commandline>



OpenHatch missions bonus material

- Do the tar mission

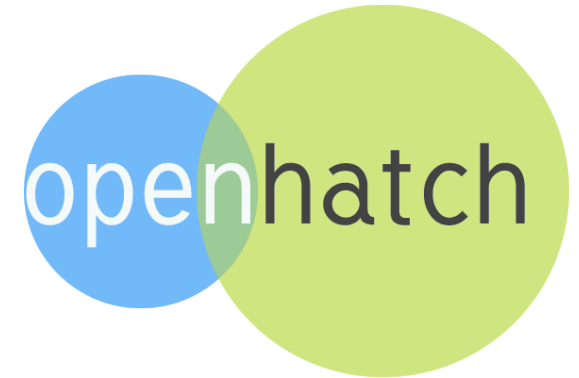
<http://openhatch.org/missions/tar>

- 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

- <http://code.google.com/p/color-wall/>
- 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

```
wall = Wall(opts.height, opts.width)
```



```
-uu-:---F1  run.py          11% L16  (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)]
```



```
-uu-:---F1  wall.py         32% L43  (Python)-----
```

<http://bit.ly/osw-diffs>

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

```
{ "## ## #",  
  "## ## #",  
  "## ## #",  
  "### # ##",  
  "### # ##",  
  "### ##",  
  "### ##",  
  "#####",  
},
```

```
{ " # #####",  
  " # #####",  
  " # #####",  
  "## # # #",  
  "## # # #",  
  "### # ##",  
  "### # ##",  
  "#####",  
},
```

```
{ "### ##",  
  "### #####",  
  "### #####",  
  "### #####",  
  "### #####",  
  "### #####",  
  "### ##",  
  "#####",  
},
```



<http://bit.ly/osw-diffs>

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
```

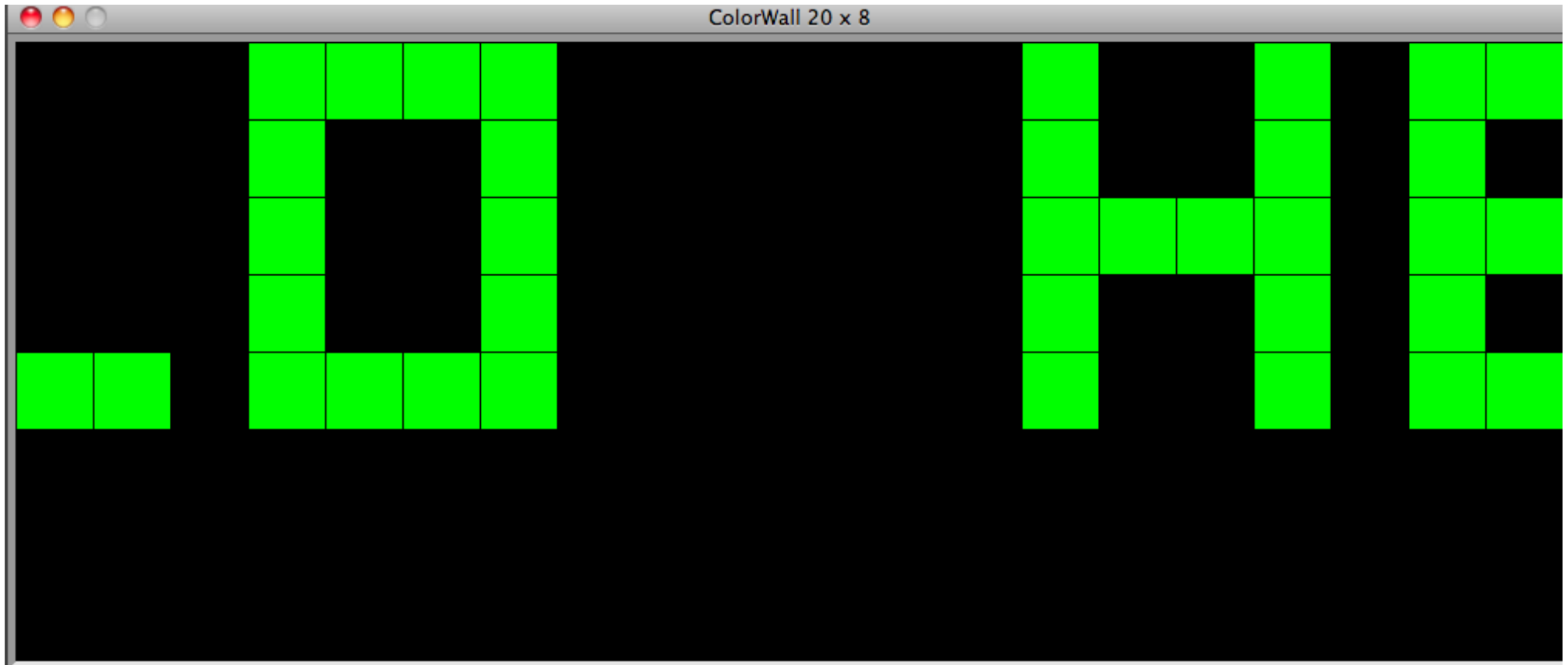
```
    self.pixels[self.width * y + x] = hsv
```

```
IndexError: list assignment index out of range
```



<http://bit.ly/osw-diffs>

Feature request: new ColorWall effect



<http://bit.ly/osw-diffs>



· ~~W~~rap-up!

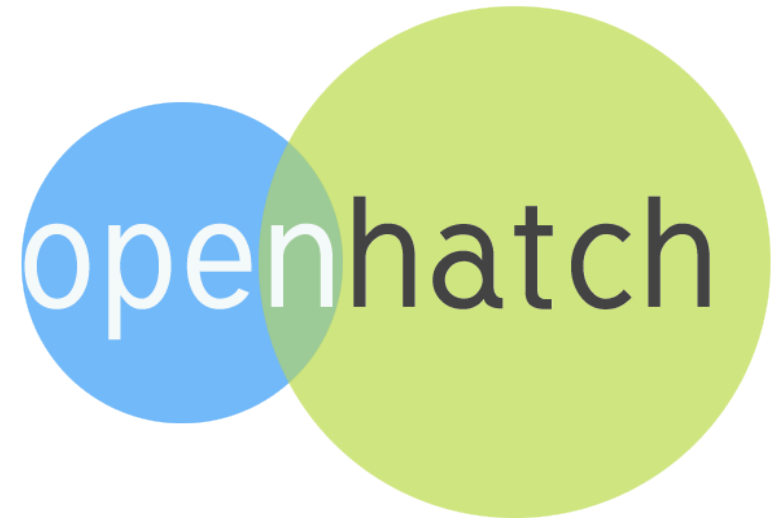


What's next?

- 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

