

VISUALIZE YOUR CODE REPOS AND MORE WITH GOURCE

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WHOAMI

Geek, traveler, reader

Community and open source consultant

20+ year tech career. Past 15 years
doing community & open source
(Intel, Jive, Puppet Labs, etc.)

PhD student at University of Greenwich
researching Linux kernel



Photos by Josh Bancroft, Don Park

AGENDA

- **Basic Options and Repositories**

- Speed / Dates
- Appearance

- **Custom Log Format**

- Mailing Lists
- Bugs

- **Additional Options / Video**

github.com/geekygirl dawn/linuxcon_2016



Demo

GETTING STARTED

Easy to run

```
$ gource /path/to/repo
```

So many options

```
$ gource -H
```

README in repo has
links to useful info



github.com/geekygirldawn/linuxcon_2016

DATES AND SPEED

Dates

```
--start-date '2014-01-01'  
--stop-date '2015-08-08'
```

Auto Skip

```
-a 1
```

Seconds Per Day

```
-s 0.5
```



Photo by Ozzy Delaney

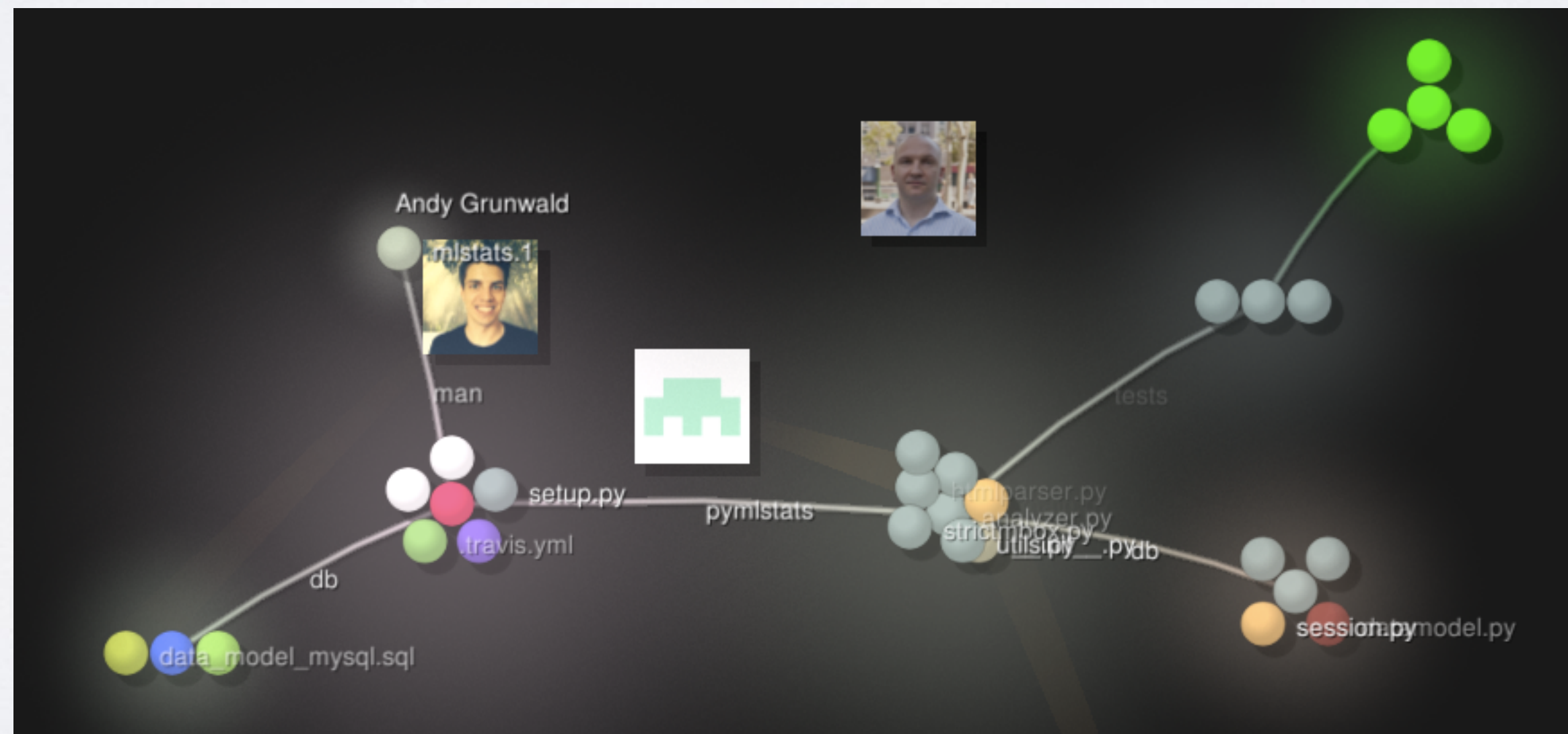
github.com/geekygirldawn/linuxcon_2016

ADD USER AVATARS

```
--user-image-dir ~/gitrepos/linuxcon_2016/images/
```

Example: Dates and Speed / Add User Avatars

```
gource --start-date '2014-01-01' --stop-date '2015-08-08' -a 1 -s .05  
--user-image-dir ~/gitrepos/linuxcon_2016/images/ ~/gitrepos/MailingListStats/
```



github.com/geekygirldawn/linuxcon_2016



Demo

MAKE IT LOOK GREAT

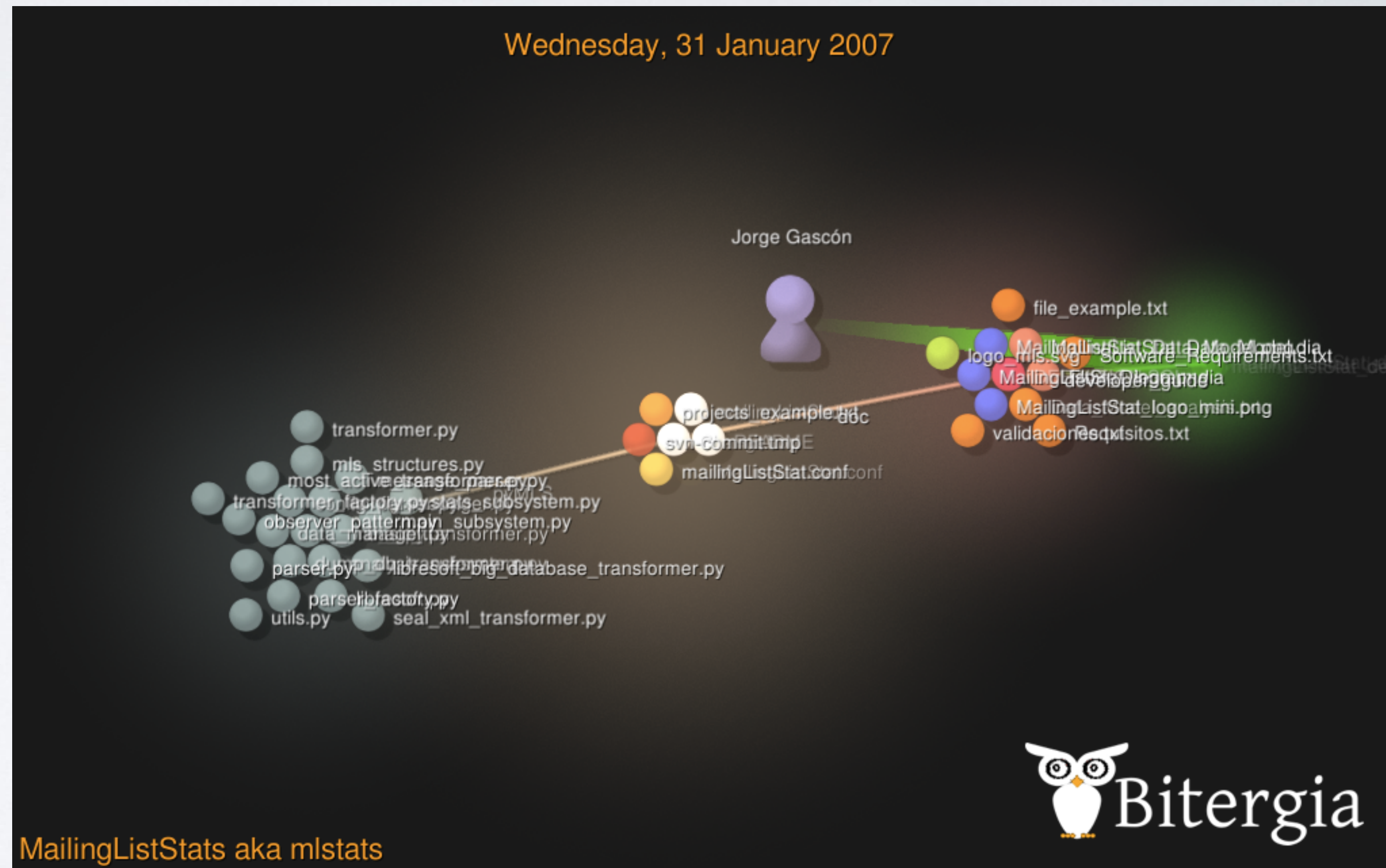
```
--date-format "%A, %d %B %Y"

--title "MailingListStats"

--font-size 22
--font-colour FF9900

--logo images/bitergia-logo.png

--logo images/bitergia-banner.png
```



github.com/geekygirldawn/linuxcon_2016

EXAMPLES: MAKE IT LOOK GREAT

Using Logo and Title

```
gource -a 1 -s .3 --date-format "%A, %d %B %Y" --font-size 22 --font-colour FF9900  
--title "MailingListStats aka mlstats"  
--logo ~/gitrepos/linuxcon_2016/images/bitergia-logo.png  
~/gitrepos/MailingListStats/
```

Using banner image logo to replace title

```
gource -a 1 -s .3 --date-format "%A, %d %B %Y" --font-size 22 --font-colour FF9900  
--logo ~/gitrepos/linuxcon_2016/images/bitergia-banner.png  
~/gitrepos/MailingListStats/
```

github.com/geekygirl dawn/linuxcon_2016

A 3D rendering of a dark blue folder with the word "Demo" in white, tilted at an angle. The folder is shown from a perspective view, with its edges and corners clearly defined. The word "Demo" is written in a large, white, sans-serif font, slanted to match the folder's orientation. The background is a light blue gradient.

Demo

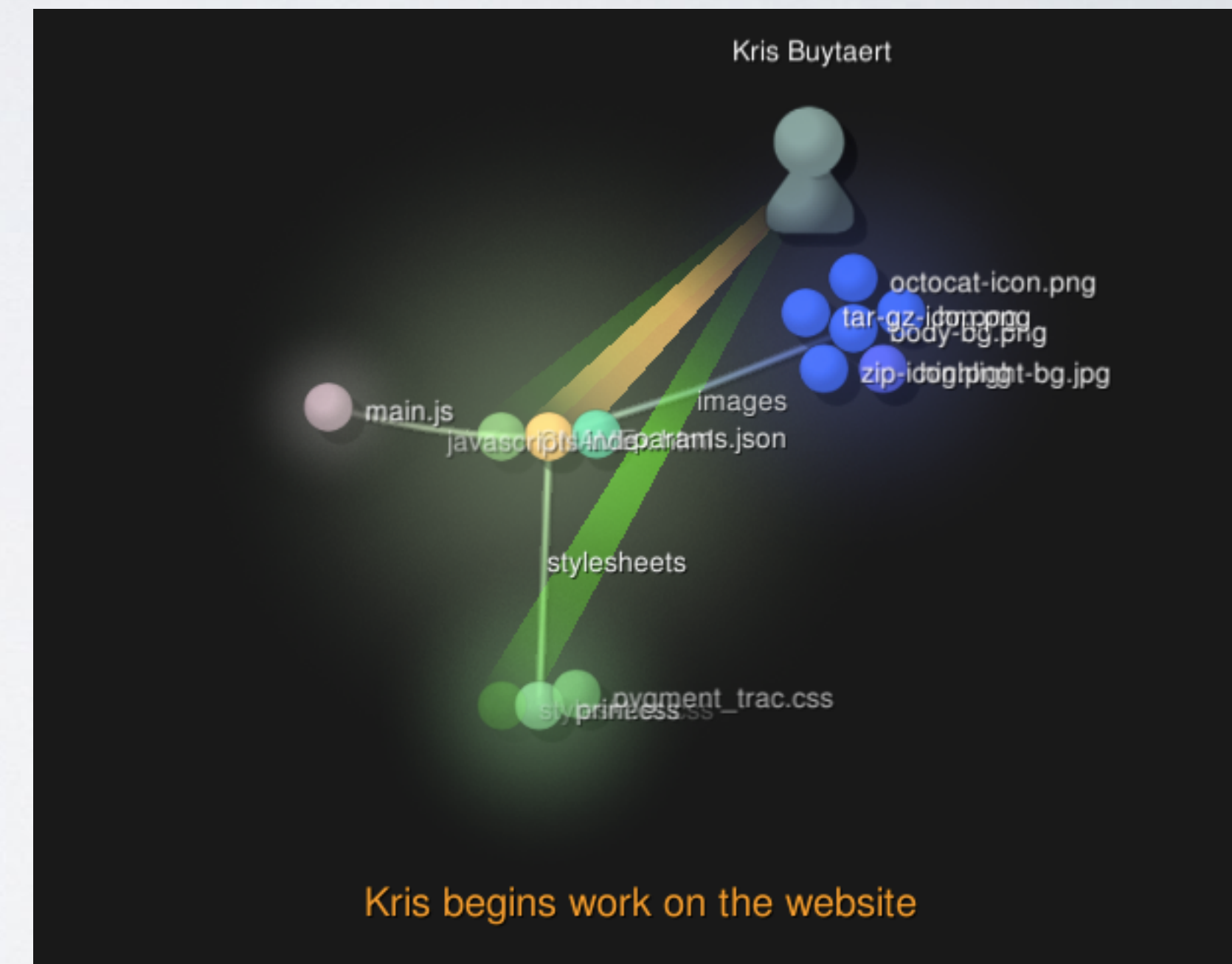
CAPTIONS

Pipe separated file: unixtime|description

```
1373850061|Kris begins work on the website  
1375750861|Dawn fixes some typos  
1379120461|Richard makes everything look nice
```

Options

```
--caption-file linuxcon_2016/data/captions.log  
--caption-duration 3  
--caption-colour FF9900  
--caption-size 20
```



github.com/geekygirl dawn/linuxcon_2016

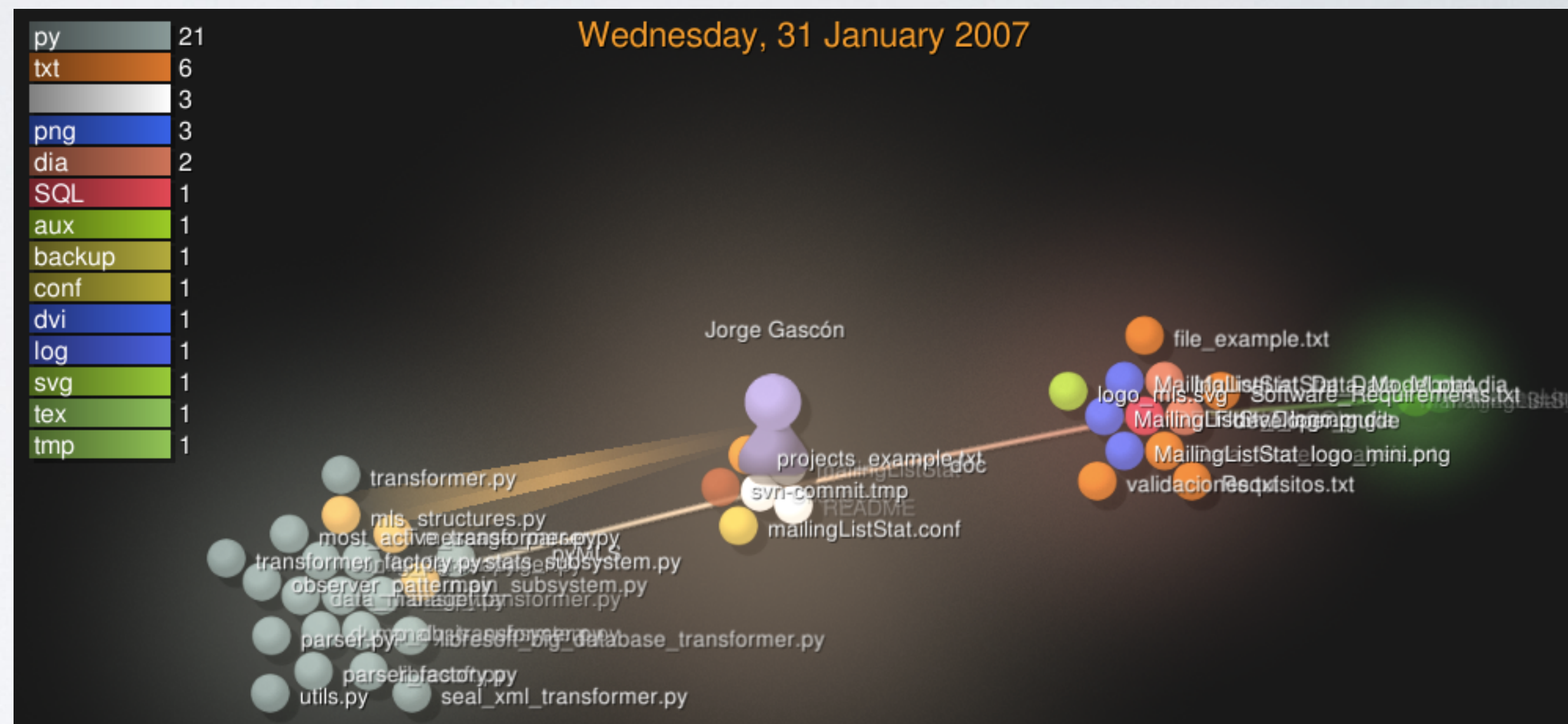
DISPLAY ADDITIONAL INFO

Key - filename extensions

--key

Example

```
gource -a 1 -s .3 --key --caption-file ~/gitrepos/linuxcon_2016/data/captions.log  
--caption-duration 3 --caption-colour FF9900 --caption-size 20  
~/gitrepos/cfgmgmtcamp.github.io/
```



github.com/geekygirldawn/linuxcon_2016



Demo

CUSTOM LOG FORMAT

Pipe Separated File

timestamp - A unix timestamp of when the update occurred.

username - The name of the user who made the update.

type - Update type - (A)dded, (M)odified or (D)eleted.

file - Path of the file.

color - Color for the file in hex (FFFFFF) format (Optional)

Examples:

```
1275543595|andrew|A|src/main.cpp
```

```
1275543700|bob|M|src/main.cpp
```


I 💖 GRIMOIRE



GRIMOIRE LAB



FREE, LIBRE, OPEN SOURCE TOOLS FOR
SOFTWARE DEVELOPMENT ANALYTICS

MailingListStats aka MLStats

CVSAnalY - repos

Bicho - bugs

Sortingshat

More

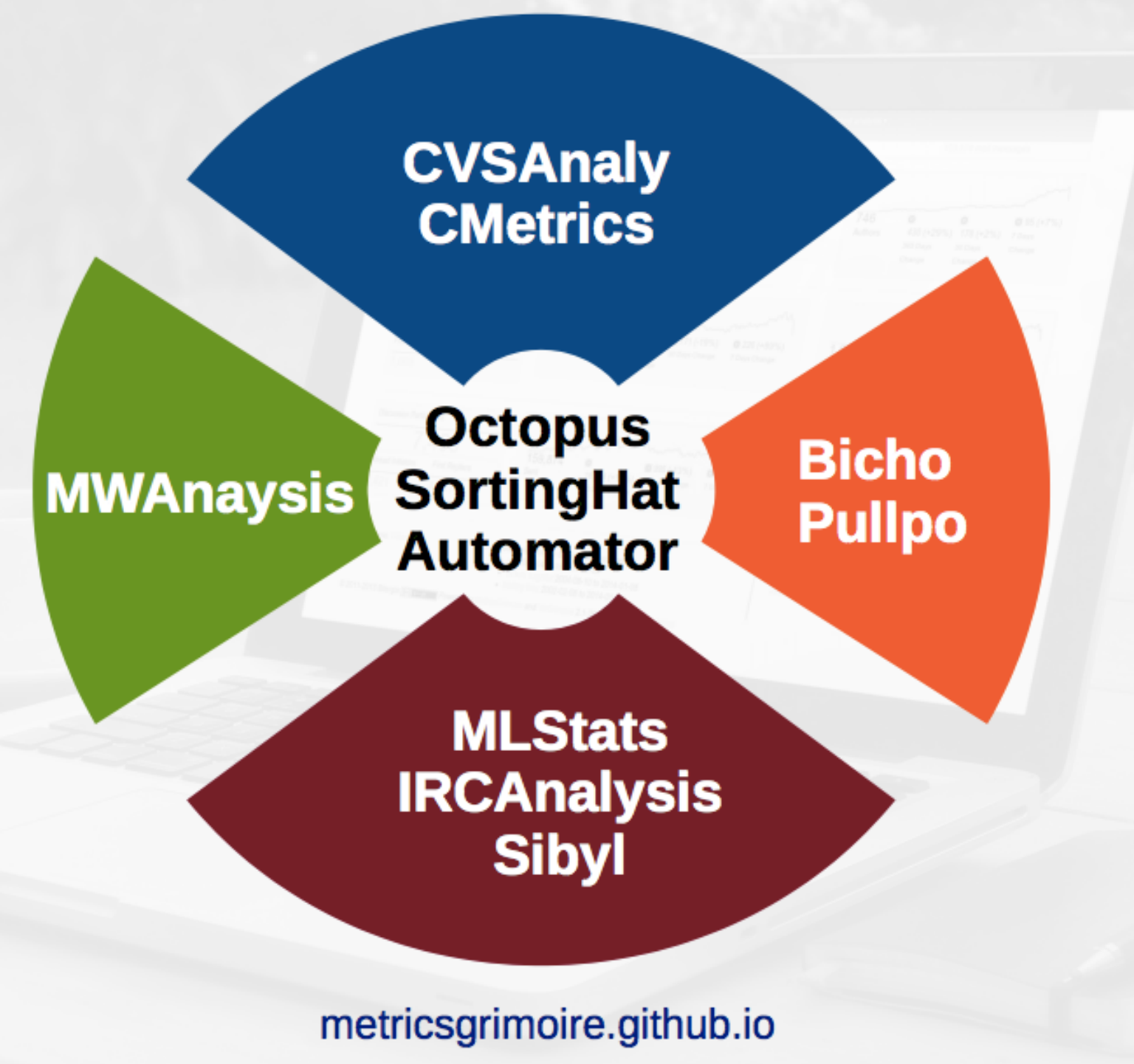


Photo by [Bitergia](#)

<http://grimoirelab.github.io/>

<http://metricsgrimoire.github.io/>

MAILING LIST EXAMPLE:

- a) Extract data using mlstats / database queries**
- b) Generate Gource custom format (pipe sep file)**

```
unixtime|user-email_sender|A|new  
unixtime|user-email_sender|M|user-in_response_to
```

c) Run Gource

```
$ gource -i 10 --max-user-speed 100 -a 1 --highlight-users  
    mailing_list_custom.log
```

OR) Run linuxcon.py from my linuxcon_2016 repo

github.com/geekygirldawn/linuxcon_2016

MAILING LIST EXAMPLE:

a) Extract data using mlstats / database queries

```
SELECT unix_timestamp(DATE_ADD(m.first_date,  
interval m.first_date_tz second))  
AS unix_date, mp.email_address AS sender,  
(SELECT mp2.email_address FROM messages m2, messages_people mp2  
WHERE m2.is_response_of=m.is_response_of  
AND mp2.message_id=m2.is_response_of limit 1) AS receiver  
FROM messages_people mp, messages m  
WHERE YEAR(m.first_date)=2015 AND MONTH(m.first_date)=1  
AND mp.message_id=m.message_id;
```


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Demo

BUG EXAMPLE:

a) Extract data using Bicho / database queries

b) Generate Gource custom format (pipe sep file)

```
unixtime|user-bug-submitter|A|module/bug-number|FFFFFFF  
unixtime|user-bug-modifier|M|module/bug-number|FFFFFFF
```

c) Run Gource

```
$ gource -a 1 -s 1 --highlight-users ~/gitrepos/linuxcon_2016/data/bugs_custom.log
```

github.com/geekygirldawn/linuxcon_2016

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Demo

ADDITIONAL OPTIONS

While Gource is Running

Space bar to pause

Ctrl + / - to speed up or slow down

Use arrow keys to move camera

Use timeline widget to move in time

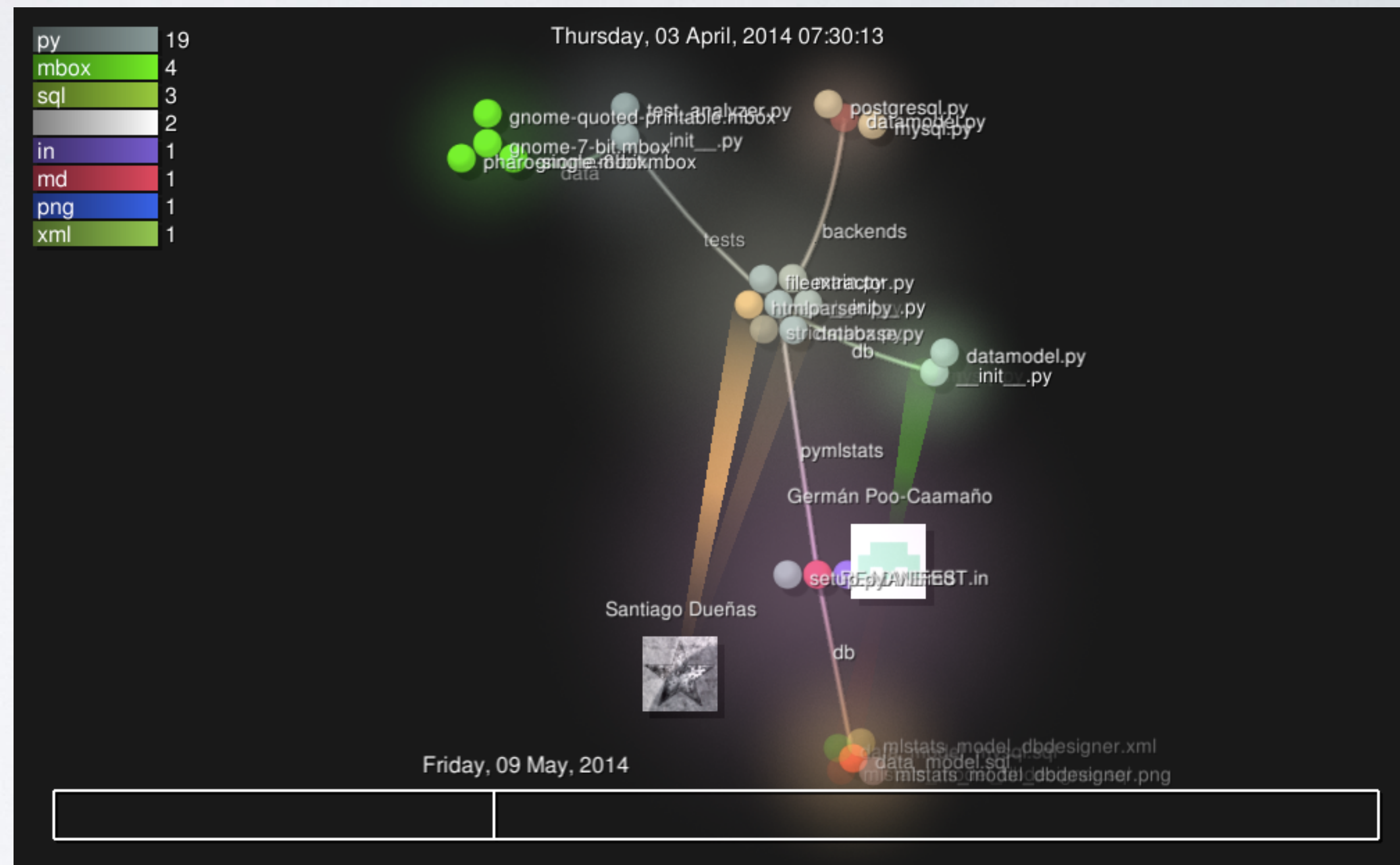
K to show / hide the file type key

Additional Display Options

Loop or full screen

-loop

-f



github.com/geekygirldawn/linuxcon_2016

GENERATING VIDEO

Record to show later - great for large repos

Caveat: This took 5-10 min on MacBook Air for 31 sec video

My Example:

```
gource -f --logo images/bitergia_logo_sm.png
--title "MailingListStats AKA mlstats"
--key --start-date '2014-01-01' --user-image-dir images -a 1 -s .05
--path ../MailingListStats -o - | ffmpeg -y -r 60 -f image2pipe
-vcodec ppm -i - -vcodec libx264 -preset ultrafast -pix_fmt yuv420p
-crf 1 -threads 0 -bf 0 gource.mp4
```

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THANK YOU



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