

Git in the Code247 way

By emgiezet @Code247

Agenda!

1. Nowy Projekt I nowe Repo != I'm screwed
2. Ze Pull iz dead!
3. Rozwiązywanie Konfliktów
4. I've fucked up sth... RESET
5. Nie dokończyłem tego... Nie pushuje bo zepsuje builda...
First STASH then PUSH
6. Narzędzia, które ułatwiają codzienną walkę.
7. Aliasy, które ratują rzyć
8. git life-hacking

Agenda!

1. Nowy Projekt I nowe Repo != I'm screwed
2. Ze Pull iz dead!
3. Rozwiązywanie Konfliktów
4. I've fucked up sth... RESET
5. Nie dokończyłem tego... Nie pushuje bo zepsuje builda...
First STASH then PUSH
6. Narzędzia, które ułatwiają codzienną walkę.
7. Aliasy, które ratują rzyć
8. git life-hacking

Nowy Projekt!

- Mam projekt. Mam repo. Co dalej?

```
$cd projekt
```

```
$git init
```

```
$git add *
```

```
$git commit -am 'Initial Commit'
```

```
$git remote add origin git@bitbucket.org:code247/projekt.git
```

```
$git push origin --all
```

- Lepiej już?

I'm on the horse.

Commit & Branch etc.

“commit **early**, branch **often**.”

~Thomas Riboulet

Remember: Smaller commits and branches also imply less complexity in the code which means less bugs.

The PULL is Dead!

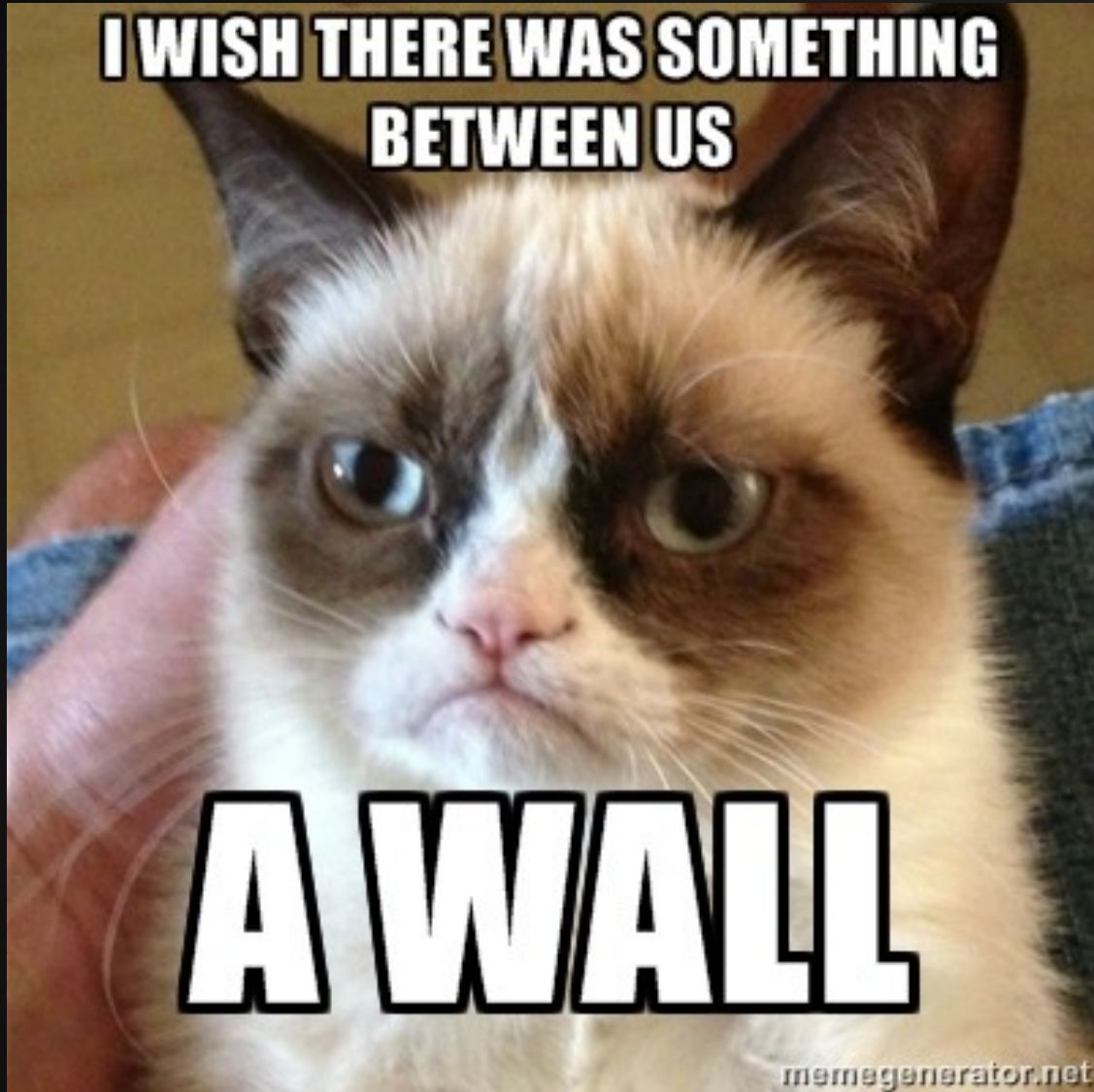
```
$git log --pretty=format:"%C(yellow)%h%Cred%d\\ %Creset%s%Cblue\\ [%cn]" --decorate
d26e3fa (HEAD, origin/master, master) test css inheritance [Max Malecki]
5e1e6b6 lesshat + gitignore [Max Malecki]
c22264c composer.json - fix - damn sonata [Max Malecki]
3137203 Initial commit [emgietet]
```

```
$git commit -am 'Super Zmiana'
$git pull
```

```
## WARNING!!! OBLEŚNY MERGE INCOMING  nawet jak nie ma konfliktów##
```

```
$git commit -am "I'm merging noob"
$git push
```

**I WISH THERE WAS SOMETHING
BETWEEN US**



A WALL

memegenerator.net

R.I.P pull – rebase FTW!

```
$git log --pretty=format:"%C(yellow)%h%Cred%d\\ %Creset%s%Cblue\\ [%cn]" --decorate
d26e3fa (HEAD, origin/master, master) test css inheritance [Max Malecki]
5e1e6b6 lesshat + gitignore [Max Malecki]
c22264c composer.json - fix - damn sonata [Max Malecki]
3137203 Initial commit [emgiezet]

$git commit -am 'Super Zmiana'
$git pull --rebase

## patch jest dodawany do zmiany bez dodatkowego commita ##

$git push
```

rebase FTW!

```
$git log --pretty=format:"%C(yellow)%h%Cred%d\\ %Creset%s%Cblue\\ [%cn]" --decorate  
ssd67as (HEAD, origin/master, master) Super Zmiana [Rysiu Grzesiu]  
d26e3fa test css inheritance [Max Malecki]  
5e1e6b6 lesshat + gitignore [Max Malecki]  
c22264c composer.json - fix - damn sonata [Max Malecki]  
3137203 Initial commit [emgietz]  
  
$git commit -am 'Super Zmiana'  
$git pull --rebase  
  
## patch jest dodawany do zmiany bez dodatkowego commita ##  
  
$git push
```

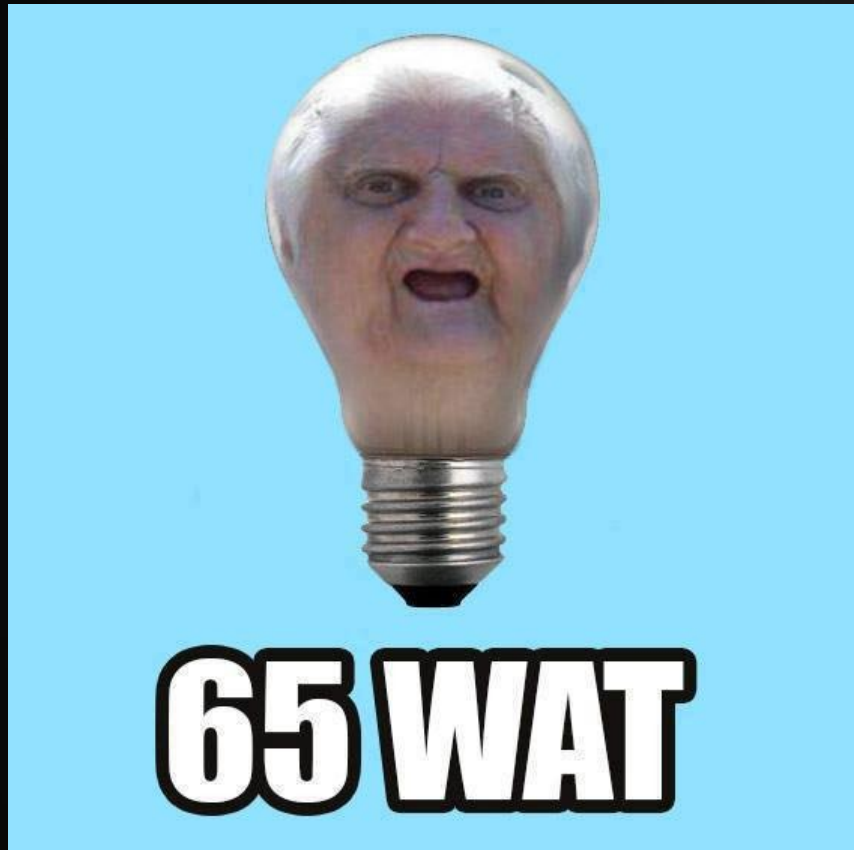
Follow the white rabbit.



How to rebase without --rebase?!

```
$git config --global pull.rebase true
```

When rebase merge fails



- Keep calm
- `$git mergetool`
- Resolve conflicts
- `$git rebase continue`



But when I screw it up?



TACTICAL FACEPALM

Sometimes a regular facepalm just doesn't cut it

hifi-forum.de

- `$git branch`
- No branch
- Create a local branch
- `$git branch noobbranch`
- `$git checkout master`
- `$git merge noobbranch`
- Dwag!

Ass-umptions

1. **Commituj** często (każdy bugfix, każdą zmianę)
2. Robisz coś co zajmie ci więcej niż 8h - [zrób brancha](#)
3. **Push** – Jak masz stabilny kod to wal śmiało po commicie
4. Na **koniec dnia** tak czy siak ma się pojawić twój kod w repozytorium!

Rozwiązywanie Konfliktów

• Tools:

– **meld**

– Opendiff

– **Kdiff3**

– Tkdifff

– xxdiff

– tortoisemerge

– gvimdiff

– diffuse

– ecmerge

– p4merge

– araxis

– bc3

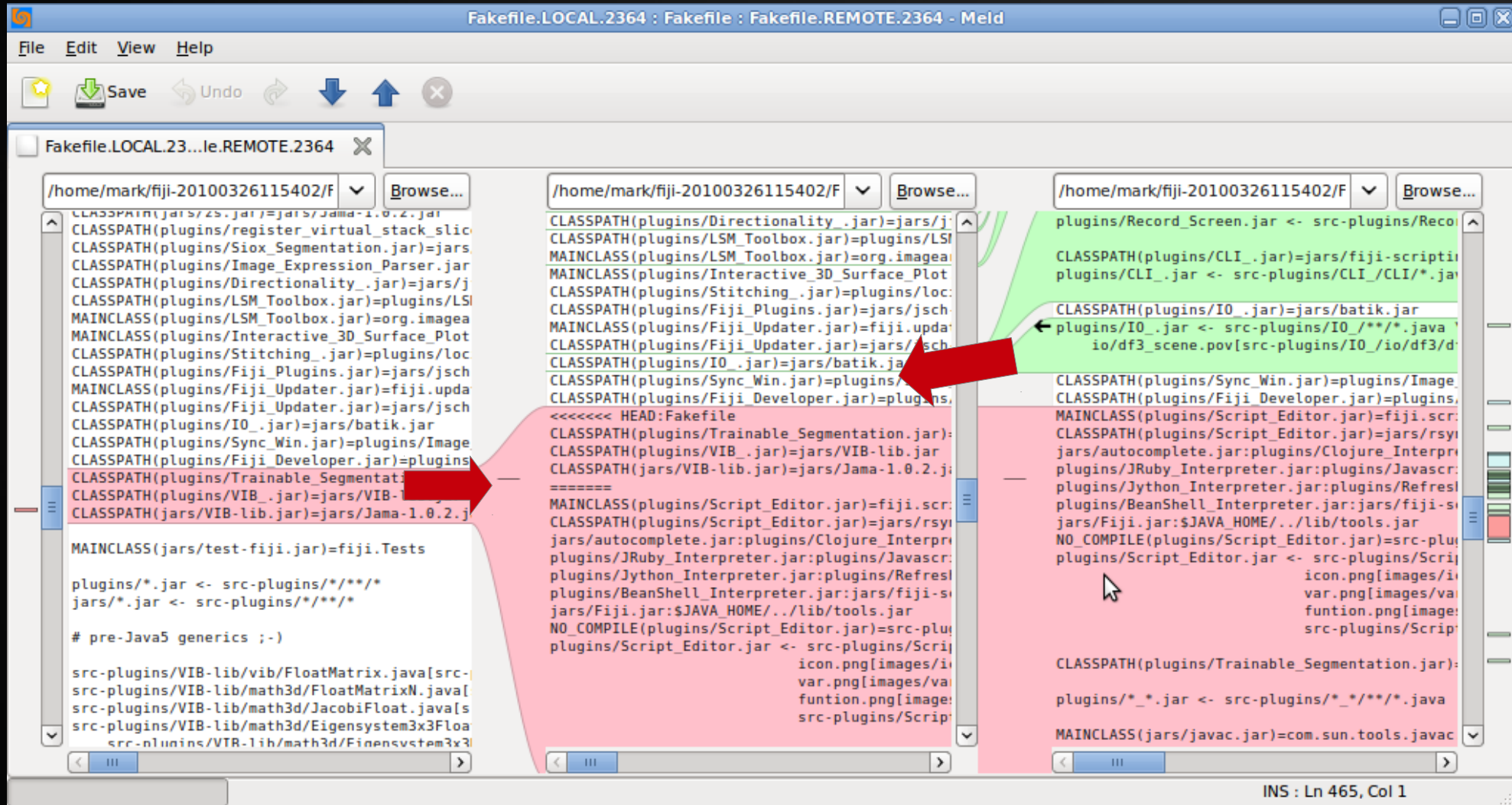
– emerge

– **vimdiff**

\$git mergetool



\$ meld



HowToMeld?!

- 3 way diff
- **Środkowe okno** jest **wynikiem** Merge'a

Myśl gdy
merge'ujesz!

Po merge'u odpalaj
testy! Zawsze!

Żeby nie spier%@! builda.

Reset == hide my fuckups plz.

- Zmiana ostatniego commitu:

```
$ git commit -m  
'initial commit'
```

```
$ git add  
forgotten_file
```

```
$ git commit --amend
```

- Cofanie zmian

```
$ git reset HEAD^
```

```
$ git reset --hard
```

\$git stash

```
$git stash save "boink"  
$git stash list  
stash@{0}: On master: boink  
## Pracujemy nad wrzutem ##  
## commit, push ##  
$git stash apply stash@{0}  
# On branch master  
  
# modified:   not_finished_file.txt  
$git commit -am 'Phew finished!'  
$git push
```

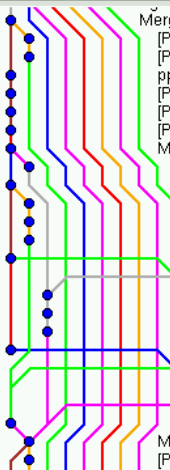
- 1) Stashujemy zmiany z label'em "boink".
- 2) Wyświetlamy listę zachowanych stashy.
- 3) ... Wrz
- 4) ... u
- 5) ... t
- 6) ... a
- 7) Nakładamy ponownie nasze zmiany na lokalne repo.
- 8) Możemy spokojnie dokończyć robotę
- 9) Commit
- 10) Push

\$git stash

- Wyrzucanie stashy:
`$git stash drop
stash@{0}`
- Czyszczenie wszystkich stashy:
`$git stash clear`
- Więcej?
- <https://ariejan.net/2008/04/23/git-using-the-stash>

gitk

File Help



Merge rsync://rsync.kernel.org/pub/scm/linux/kernel/git/airlied/d...
 [PATCH] remove bogus hack from radeon IRQ handler
 [PATCH] drm add i945G pci id
 ppc: remove two extraneous descriptors for the 405EP CPU
 [PATCH] ppc32: Fix nasty sleep/wakeup problem
 [PATCH] iseries_veth: Suppress spurious WARN_ON() at modu
 [PATCH] ppc32: add 405EP cpu_spec entry
 Merge rsync://rsync.kernel.org/pub/scm/linux/kernel/git/gregkl...
 [PATCH] PCI: MSI functionality broken on Serverworks GC
 Merge master.kernel.org:/home/rmk/linux-2.6-arm
 [PATCH] ARM: 2708/1: Fix hackkit CPU Frequency buil
 [PATCH] ARM: 2707/2: Fix badge4 CPU Frequency buil
 [PATCH] ARM: 2706/1: Fix compile on SA-based IPAQs
 Merge rsync://rsync.kernel.org/pub/scm/linux/kernel/git/e...
 Merge rsync://rsync.kernel.org/pub/scm/linux/kernel/git/g...
 [PATCH] USB: fidi_sio: avoid losing received data in tty-
 [PATCH] USB: fix ub issues
 [PATCH] PCI Hotplug: fix CPCI reference counting bug
 [IA64] Fix race condition in the rt_sigprocmask fastcall
 Merge master.kernel.org:/home/rmk/linux-2.6-arm
 [PATCH] sg traverse fix for __atapi_pio_bytes()
 [PATCH] sata_sil: Fix FIFO PCI Bus Arbitration kernel oo
 [PATCH] ARM: Remove zero-byte sized file
 Merge rsync://rsync.kernel.org/pub/scm/linux/kernel/git/daven...
 [PKT_SCHED]: Fix numeric comparison in meta ematch

Linus Torvalds <torvalds@ppc970.osdl.org>
 Dave Airlie <airlied@starflyer.(none)>
 Dave Airlie <airlied@starflyer.(none)>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Benjamin Herrenschmidt <benh@kernel.crashing.or
 Michael Ellerman <michael@ellerman.id.au>
 Eugene Surovegin <ebs@ebshome.net>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Narendra Sankar <nsankar@broadcom.com>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Vincent Sanders <vince@org.rmk.(none)>
 Vincent Sanders <vince@org.rmk.(none)>
 Dave Neuer <dneuer@org.rmk.(none)>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 lan Abbott <abbotti@mev.co.uk>
 Pete Zaitcev <zaitcev@redhat.com>
 Scott Murray <scottm@somanetworks.com>
 Christoph Lameter <clameter@sgi.com>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Albert Lee <albertcc@tw.ibm.com>
 Jens Axboe <axboe@suse.de>
 Russell King <rmk@dyn-67.arm.linux.org.uk>
 Linus Torvalds <torvalds@ppc970.osdl.org>
 Thomas Graf <tgraf@suug.ch>

2005-06-10 21:23:21
 2005-06-10 03:27:51
 2005-06-10 02:47:38
 2005-06-10 10:37:21
 2005-06-09 22:19:02
 2005-06-09 13:36:33
 2005-06-09 13:36:29
 2005-06-09 16:37:56
 2005-05-06 13:00:05
 2005-06-09 16:36:31
 2005-06-09 14:59:22
 2005-06-09 14:59:21
 2005-06-09 10:40:55
 2005-06-09 16:25:29
 2005-06-09 11:44:48
 2005-06-02 03:34:11
 2005-06-06 14:54:59
 2005-06-06 13:48:04
 2005-06-09 13:29:00
 2005-06-09 10:04:11
 2005-06-06 01:56:03
 2005-06-08 05:02:25
 2005-06-09 09:53:28
 2005-06-08 17:36:31
 2005-06-08 16:11:19

SHA1 ID: 9f793d2c77ec5818679e4747c554d93333cec4476 Find Exact All fields

Author: Pete Zaitcev <zaitcev@redhat.com> 2005-06-06 14:54:59
 Committer: Greg Kroah-Hartman <gregkh@suse.de> 2005-06-09 02:38:11

[PATCH] USB: fix ub issues

This smoothes two imperfections:
 - Increase number of LUNs per device from 4 to 9. The best solution
 would be to remove this limit altogether, but that has to wait until
 the time when more than 26 hosts are allowed.
 - Replace mdelay with msleep in a probing routine.

Signed-off-by: Pete Zaitcev <zaitcev@yahoo.com>
 Signed-off-by: Greg Kroah-Hartman <gregkh@suse.de>

----- drivers/block/ub.c (modified) -----
 49 49

```

/*
 * This many LUNs per USB device.
 * Every one of them takes a host, see UB_MAX_HOSTS.
 */
#define UB_MAX_LUNS 4
#define UB_MAX_LUNS 9

/*
 */
#define UB_MINORS_PER MAJOR 8
2098 2098 static int ub_probe(struct usb_interface
    }
    if (rc != 0) {
        nluns = rc;
        break;
    }
    ndelay(100);
    msleep(100);
}

for (i = 0; i < nluns; i++) {
    ub_probe_lun(sc, i);

```

All files
 drivers/block/ub.c

Narzędzia

- \$sudo apt-get install gitk
- Just do it.
- K THX BYE

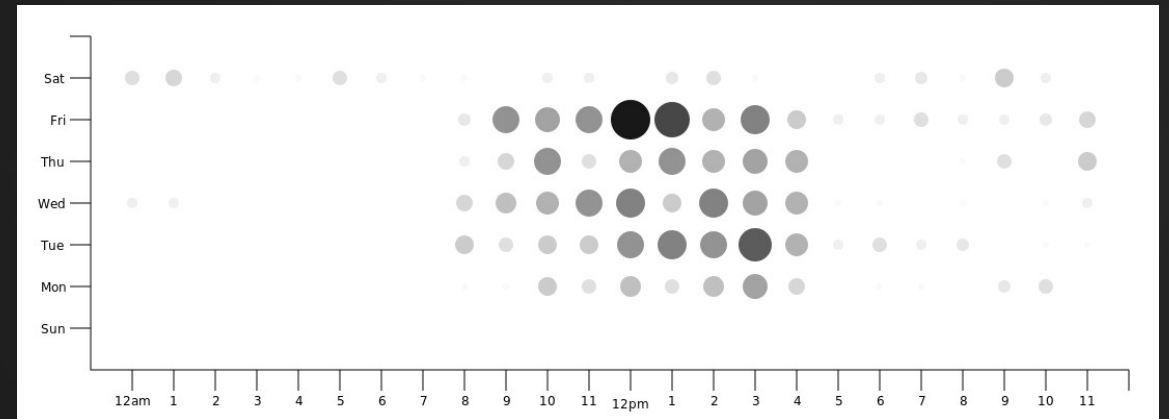
Narzędzia

- Statystyki Commitów:

```
$ sudo gem install  
git_fame  
$ cd ./myUberProject  
$ git fame
```

- Wykresy

- git-stats
- git-punchcard
- gource – wizualizacje repozytorium



Aliaszy

Lista Commitów?

```
$git ls
```

```
d26e3fa (HEAD, origin/master, master) test css  
inheritance [Max Malecki]
```

```
5e1e6b6 lesshat + gitignore [Max Malecki]
```

```
c22264c composer.json - fix - damn sonata [Max Malecki]
```

```
3137203 Initial commit [emgietet]
```

Edit this:

```
$vim ~/.gitconfig
```

MOAR ALIASES BELOW!

<https://gist.github.com/emgietet/5353795>

Nie pamiętasz co robiłeś wczoraj?

```
$git standup
```

```
9f927ef emgietet
```

```
Finished
```

```
deb73c6 emgietet
```

```
WIP
```

```
30d0560 emgietet
```

```
Initial commit nigga
```

git life-hacking

- Autocorrect:

```
$ git config --global  
help.autocorrect 1
```

- CodeSniffer on `pre_commit`
hook

- Colors:

```
[color]  
    diff = auto  
    status = auto  
    branch = auto  
    interactive = auto  
    ui = true  
    pager = true  
[color "status"]  
    added = green  
    changed = yellow  
    untracked = red
```

Want more?

- Check out git-flow:
<http://danielkummer.github.io/git-flow-cheatsheet/>
- Commit logs from last night:
<http://www.commitlogsfromlastnight.com/>

