Telling stories through your commits

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Our key challenge is managing complexity

Naming

Code design

Refactoring

Automated tests

"The primary goal of a software developer should be to communicate their intent to future developers"

- Louise Crow

Version control system

Your commit history is...

Kept forever

Always up to date

Searchable

```
$ git log --grep='Commit contents'
```

```
$ git log -S 'Diff contents'
```

```
$ git blame
```

```
2b66b32a (Prathamesh Sonpatki      | 11 gem 'mocha', '~> 0.14', require: false
2b66b32a (Prathamesh Sonpatki      | 12
7891cbf4 (Lee Reilly               | 13 gem 'rack-cache', '~> 1.2'
58009ace (Carlos Antonio da Silva  | 14 gem 'jquery-rails', github: 'rails/jquer
fa5a1b93 (Joshua Peek              | 15 gem 'coffee-rails', '~> 4.1.0'
74a9b377 (Rafael Mendonça França   | 16 gem 'turbolinks'
58009ace (Carlos Antonio da Silva  | 17 gem 'arel', github: 'rails/arel', branch
```

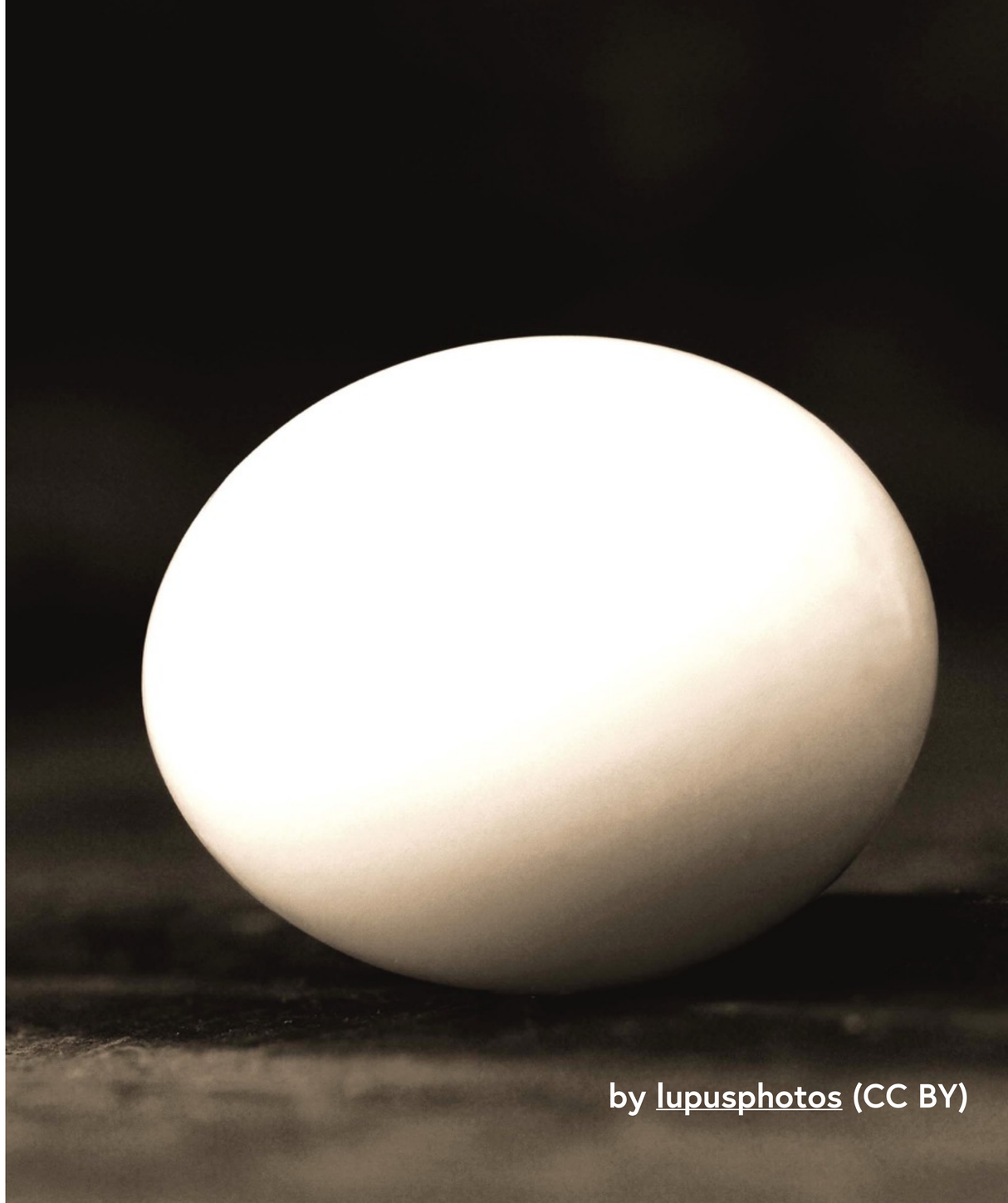
"Every line of code is always documented"

- Mislav Marohnić

from http://mislav.uniqpath.com/2014/02/hidden-documentation/

Three principles

1.
Make atomic commits



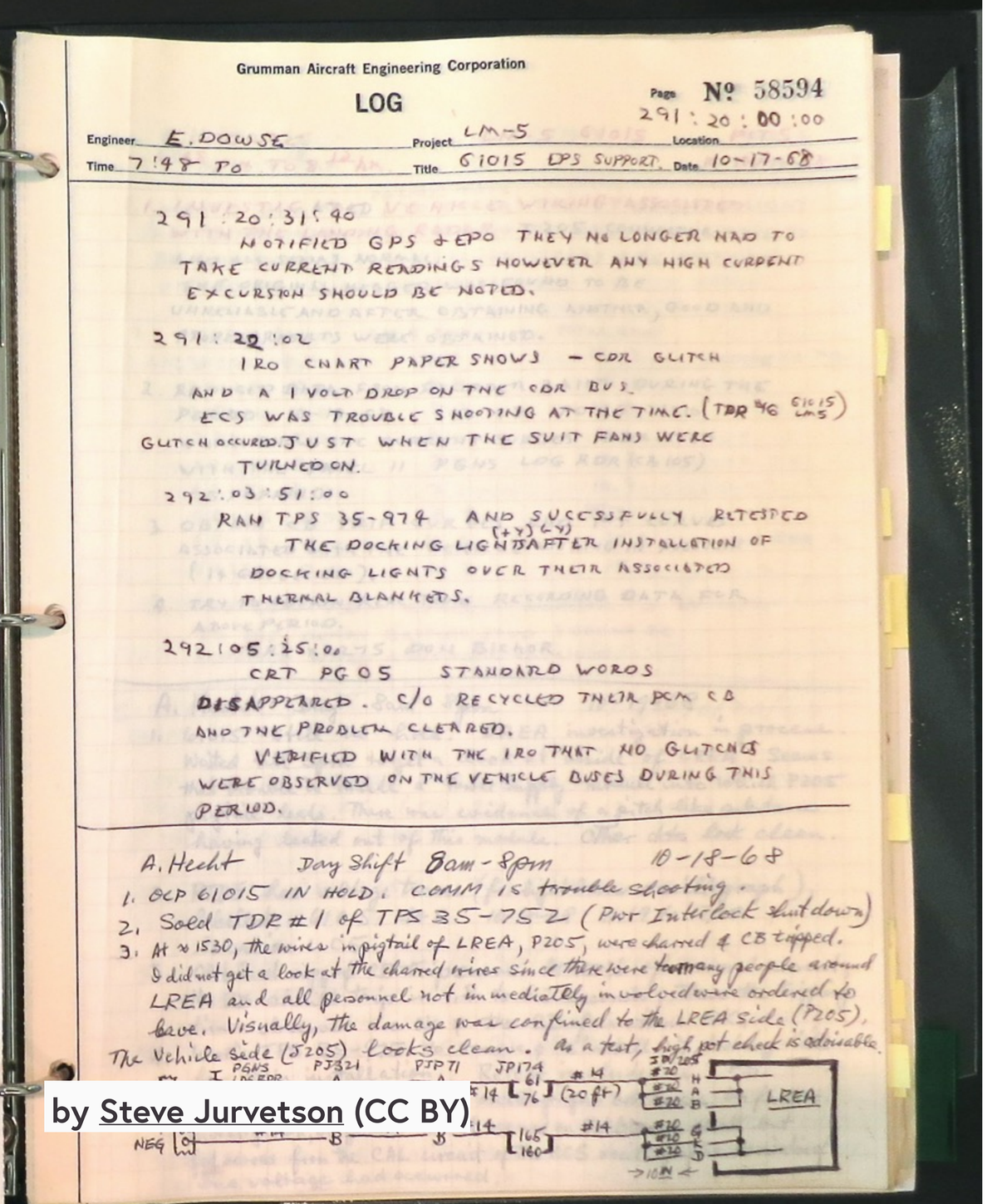
```
$ git log --shortstat
commit: [REDACTED]
Author: [REDACTED]
Date:   [REDACTED]

Bug fixes and WordPress 4.0.1 update

1377 files changed,
175405 insertions(+),
248 deletions(-)
```

What if this commit had been split up?

```
21dfe89 Fix category page redirects
e275479 Fix deletion of author avatars
d824e02 Fix H2 headers on mobile
f8e36d4 Fix footer floating bug
d972537 Fix blog author avatar upload
d26e788 Remove unused author pages
7b91091 Fix blog feed
2f05036 Fix mixed content warnings
ed21e18 WordPress 4.0.1 update
```

Minimum viable commit

Avoid 'and' in commit messages



Grumman Aircraft Engineering Corporation

LOG

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291 : 20 : 00 : 00

Engineer E. DOWSE Project LM-5 Location

Time 7:48 PM Title 61015 EPS SUPPORT Date 10-17-68

291 : 20 : 31 : 40
NOTIFIED GPS & EPO THEY NO LONGER HAD TO TAKE CURRENT READINGS HOWEVER ANY HIGH CURRENT EXCURSION SHOULD BE NOTED.

291 : 22 : 02
IRO CHART PAPER SHOWS – CDR GLITCH AND A 1 VOLT DROP ON THE CDR BUS. ECS WAS TROUBLE SHOOTING AT THE TIME. (TDR #6 61015 LM5) GLITCH OCCURED JUST WHEN THE SUIT FANS WERE TURNED ON.

292 : 03 : 51 : 00
RAN TPS 35-974 AND SUCCESSFULLY RETESTED THE DOCKING LIGHT (+Y) (-Y) AFTER INSTALLATION OF DOCKING LIGHTS OVER THEIR ASSOCIATED THERMAL BLANKETS.

292 105 : 25 : 00
CRT PG 05 STANDARD WORDS DISAPPEARED. C/O RECYCLED THEIR PCM CO AND THE PROBLEM CLEARED.
VERIFIED WITH THE IRO THAT NO GLITCHES WERE OBSERVED ON THE VEHICLE BUSES DURING THIS PERIOD.

A. Hecht Day Shift 8am - 8pm 10-18-68

1. OCP 61015 IN HOLD. COMM is trouble shooting.
2. Sold TDR #1 of TPS 35-752 (PWR Interlock shut down)
3. At ≈ 1530, the wires in pigtail of LREA, P205, were charred & CB tripped. I did not get a look at the charred wires since there were too many people around LREA and all personnel not immediately involved were ordered to leave. Visually, the damage was confined to the LREA side (P205). The Vehicle side (J205) looks clean. As a test, high pot check is advisable.

by Steve Jurvetson (CC BY)

2. Write good commit messages

What does good look like?

Short one line title

Longer description of what the change does (if the title isn’t enough).

An explanation of why the change is being made.

Perhaps a discussion of context and/or alternatives that were considered.

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Correct the colour of FAQ link in course notice footer

PT: https://www.pivotaltracker.com/story/show/84753832

In some email clients the colour of the FAQ link in the course notice footer was being displayed as blue instead of white. The examples given in PT are all different versions of Outlook. Outlook won't implement CSS changes that include `!important` inline[1]. Therefore, since we were using it to define the colour of that link, Outlook wasn't applying that style and thus simply set its default style (blue, like in most browsers). Removing that `!important` should fix the problem.

[1] https://www.campaignmonitor.com/blog/post/3143/outlook-2007-and-the-inline-important-declaration/

by hoodedfang (CC BY-NC)

3.
Revise your development history before sharing

```
$ git rebase --interactive
```

Remove, reorder, edit, merge and split commits

```
324d079 Fix typo in "Add Foo"
ab2189d Remove Bar
2a11e7d Add Foo
```

```
1bd241c Remove Bar
773e345 Add Foo
```

1. Make atomic commits
2. Write good commit messages
3. Revise your history before sharing

"I love our commit messages, I don't think I've worked on a codebase where it's easier to answer the question, 'huh, why is this code here?'"

How do I persuade my team to adopt these practices?

Won't it take lots of discipline to get a long term payoff?

These practices make it simpler for individual developers now

1. Make atomic commits
2. Write good commit messages
3. Revise your history before sharing

Thank you

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