
ZeroMQ magic: Integration

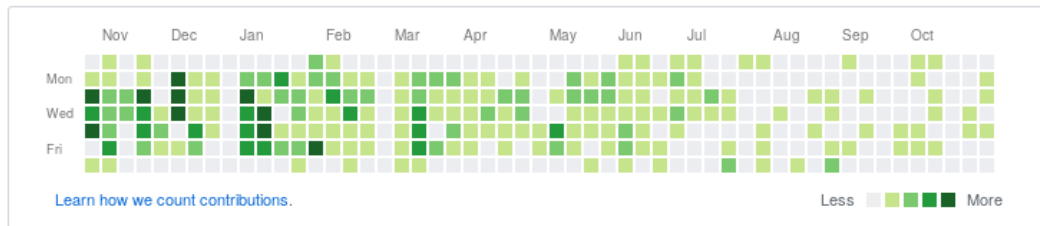
Michal Vyskocil, OpenAlt 2017

About me



1,780 contributions in the last year

Contribution settings ▾



- 36 years
 - Member of ZeroMQ community, maintainer of czmq, zproto, zproject and malamute
 - Member of openSUSE community
 - Former developer of 42ity.org project
-

**Mission statement:
Zero cost,
Effectivity**

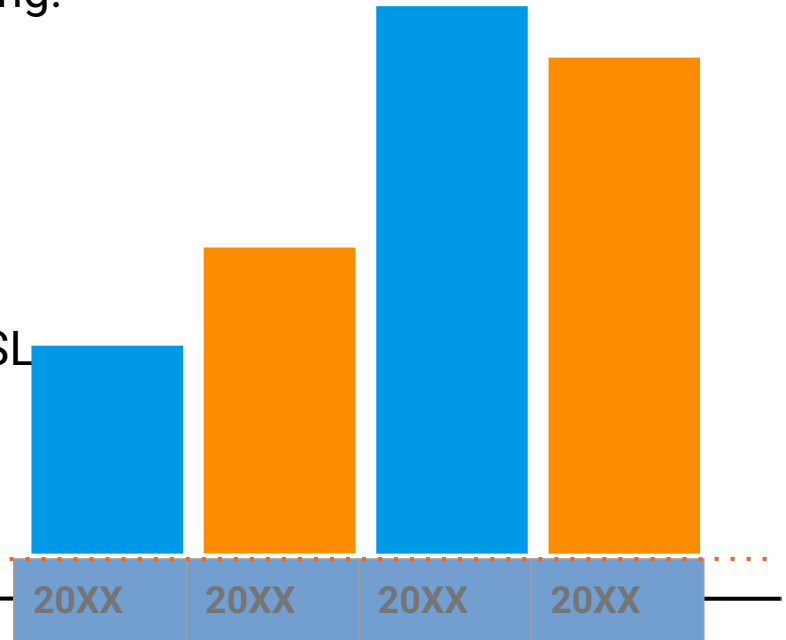


The problem

Software is not only coding.
There are

- Build recipes
- CI / CD

Each comes with own DSL



I ASSURE YOU

**The (typical)
solution**

THE BUILD SYSTEM IS FIN

Experts, niches

- Only one expert for CI/CD
- Always late
- Bus factor = 1
- Contradictory with agile



The solution

<https://github.com/zproject>

- Build recipes
- Packaging recipes
- Travis YML, Jenkins pipelines
- Dockerfile
- And many more!!

Model oriented programming

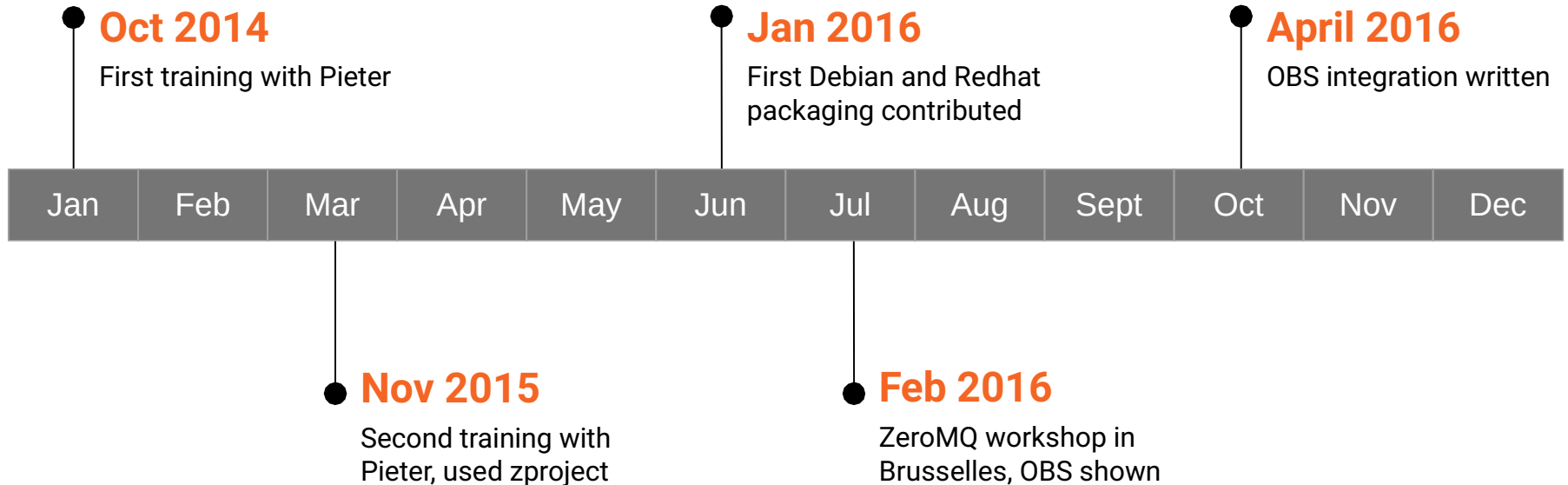
- Programming languages are versatile, you can write anything
 - Real programming is about modelling business problems
 - Sometimes it's worth to abstract model even more
 - ... and generate the final code
-

Why is gsl the best approach?

- Adds a small multiplatform tool in C called gsl
 - Language, environment, platform, ... agnostic
 - Is template based
 - The result is pretty readable
 - The result is EASY to fix or extend
 - Case study: zm-proto and zproto_coded_c
-

Open Build Service integration

The important milestones



How it works

project.xml

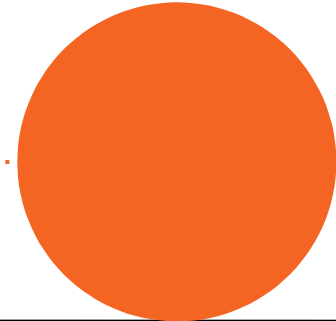
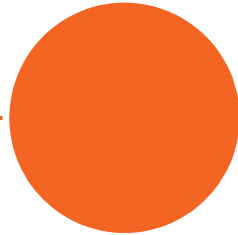
Simple declarative
description of a project

Zproject templates

Templates of actual
output.

Make code

Generated content,
done via zeromq/gsl



How it works

zeromq / czmq  build error

Current Branches Build History Pull Requests > [Build #2860](#)

✓ **master** Merge pull request #1747 from bluca/compression

Problem: test-randof breaks cmake/msvc, out of date with zproject, optional deps not used, no API to compress and send/receive data

↶ Commit b7c8a8b [↗](#)

🔗 Compare c62659a..b7c8a8b [↗](#)

🌿 Branch master [↗](#)

Ⓜ Michal Vyskocil authored  GitHub committed

Build Jobs

✓ # 2860.1

 </> Compiler: gcc C

 BUILD_TYPE=default

How it works

openSUSE Build Service > Projects > network:messaging:zeromq:git-draft > czmq

[Overview](#) [Repositories](#) [Revisions](#) [Requests](#) [Users](#) [Advanced](#)

czmq git








No description set

 [Report Bug](#)

Source Files















Show entries

Search:

Filename	Size	Changed	Actions
_service	3.31 KB	3 months ago	
_service:extract_file:czmq.dsc	491 Bytes	about 2 months ago	
_service:extract_file:czmq.spec	5.04 KB	16 days ago	
_service:extract_file:debian.changelog	145 Bytes	9 months ago	
_service:extract_file:debian.compat	2 Bytes	about 1 year ago	
_service:extract_file:debian.control	2.32 KB	about 2 months ago	
_service:extract_file:debian.copyright	538 Bytes	about 2 months ago	

[Build Results](#) [Rpmlint Results](#)

czmq

CentOS_6	 i586
	 x86_64
CentOS_7	 x86_64
Debian_7.0	 i586
	 x86_64
Debian_8.0	 i586
	 x86_64
Debian_9.0	 aarch64
	 i586
	 x86_64
Debian_Next	 i586
	 x86_64
Fedora_24	 i586
	 x86_64



And that's not all!

<https://github.com/zproject>

- API model and language bindings generation
-

Q&A

<https://github.com/zeromq/zproject/>

<https://github.com/zeromq/gsl#model-oriented-programming>

<https://github.com/zeromq/czmq/blob/master/project.xml>
