

Contribute to Free/Libre and OpenSource Software

HowTo Get Your Things Upstream

Alexander Dahl

<http://www.lespocky.de/>

2016-09-26

What?

Why?

How?

Communicate

Git

Me

Yet another free software developer ...

Background

- ▶ using Free Software since \approx 2001
- ▶ contributing to Free Software since \approx 2003
- ▶ diploma in engineering (mechatronics)
- ▶ working as Embedded Linux developer

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Projects

- ▶ fli4l
- ▶ buildroot
- ▶ ptxdist
- ▶ libcgi
- ▶ Freifunk

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Free/Libre and OpenSource Software

What Do We Want?

- ▶ Free beer!!1!

Free/Libre and OpenSource Software

What Do We Want?

- ▶ ~~Free beer!!1!~~
- ▶ Free speech!

Free/Libre and OpenSource Software

What Do We Want?

- ▶ Free beer!!1!
- ▶ Free speech!

Freedoms as Defined by Free Software Foundation (FSF)

Freedom 0 The freedom to run the program for any purpose.

Freedom 1 The freedom to study how the program works, and change it to make it do what you wish.

Freedom 2 The freedom to redistribute and make copies so you can help your neighbor.

Freedom 3 The freedom to improve the program, and release your improvements (and modified versions in general) to the public, so that the whole community benefits.

Components of FLOSS

- ▶ Sourcecode
- ▶ Documentation
- ▶ Artwork
- ▶ Community
- ▶ Tests
- ▶ Infrastructure

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Why Contribute?

- ▶ add features
- ▶ fix bugs
- ▶ improve software
- ▶ for fun
- ▶ social responsibility
- ▶ sustainability (use old devices)
- ▶ learning
- ▶ business
- ▶ ...

Why Upstreaming?

- ▶ more people can use it
- ▶ review and improvement of your stuff
- ▶ less future work
- ▶ avoid fragmentation
- ▶ give back to community
- ▶ ...

How?

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I Want to Help!

Betreff Re: json-c 0.12.1 release
Von José Bollo <jose.bollo@iot.bzh> 
Absender json-c@googlegroups.com 
An json-c <json-c@googlegroups.com> 
Antwort an json-c@googlegroups.com 
Datum 2016-07-27 14:56

Le mardi 7 juin 2016 06:41:32 UTC+2, Eric a écrit :

Announcing the 0.12.1 release of json-c.

The only changes as compared to 0.12 are to include the couple of minor compile fixes that were already present on the json-c-0.12 branch, and this release is largely just flushing out a couple of tarballs that should have been created long ago.

Note that at some point in the (hopefully) near future, I expect to create an arguably more useful 0.13 release off of the master branch. Volunteers are always welcome to help.

I'm volunteer for improving a lot json-c. I have full ideas and good knowledge.

Eric

--
You received this message because you are subscribed to the Google Groups "json-c" group.
To unsubscribe from this group and stop receiving emails from it, send an email to json-c+unsubscribe@googlegroups.com.
For more options, visit <https://groups.google.com/d/optout>.

I Want to Help!

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I'm volunteer for improving a lot json-c. I have full ideas and good knowledge.

It Depends ...

- ▶ what type of contribution
 - ▶ Sourcecode
 - ▶ Documentation
 - ▶ Artwork
 - ▶ Community
 - ▶ Tests
 - ▶ (Infrastructure)
- ▶ which project/community
- ▶ your preference

Ask and Answer Questions

The community part

- ▶ mailing list
- ▶ forum
- ▶ chat
- ▶ stackoverflow
- ▶ social media
- ▶ usenet
- ▶ ...

Talk, Talk, Talk

It's a trap ...

- ▶ make yourself familiar with community rules
 - ▶ Code of Conduct
 - ▶ non written rules
- ▶ choose the right channel
- ▶ be polite
- ▶ be patient
- ▶ learn.to/quote

Use the Bugtracker

Which

- ▶ Bugzilla (run far, run fast)
- ▶ Trac
- ▶ Mantis (maybe run)
- ▶ Redmine
- ▶ GitHub
- ▶ Atlassian Jira (you could run while it still loads)

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How

- ▶ make sure it's a bug (not a »layer 8 problem«)
- ▶ detailed description
- ▶ reproducible (minimal example)
- ▶ (add a patch)

What's a Patch?

```
From: Alexander Dahl <alex@netz39.de>
Date: Thu, 17 Mar 2016 15:04:09 +0100
Subject: x86: fix platform_export_bootpart() for Xen virtual disks
```

Virtual disk devices in a Xen virtual machine (DomU) can be /dev/xvda, /dev/xvdb and so on with partitions like /dev/xvda1. Devices named like this were not considered before. This resulted in a non working sysupgrade, because the boot partition could not be found.

```
Signed-off-by: Alexander Dahl <alex@netz39.de>
Suggested-by: Matthias Schiffer <mschiffer@universe-factory.net>
```

```
diff --git a/target/linux/x86/base-files/lib/upgrade/platform.sh b/target/linux/x86/base-files/lib/upgrade/platform.sh
index 73ab5ef..adc119c 100644
--- a/target/linux/x86/base-files/lib/upgrade/platform.sh
+++ b/target/linux/x86/base-files/lib/upgrade/platform.sh
@@ -17,7 +17,7 @@ platform_export_bootpart() {
     PARTUUID=[a-f0-9][a-f0-9][a-f0-9][a-f0-9][a-f0-9][a-f0-9][a-f0-9][a-f0-9]
     uuid="${disk#PARTUUID=}"
     uuid="${uuid%-02}"
-   for disk in /dev/[hsv]d[a-z]; do
+   for disk in /dev/[hsv]d[a-z] /dev/xvd[a-z]; do
     set -- $(dd if=$disk bs=1 skip=440 count=4 2>/dev/null | hexdump -n 4)
     if [ "$4$3$2$1" = "$uuid" ]; then
         export BOOTPART="${disk}1"
```

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This fixed sysupgrade for OpenWRT Xen VM. Merged both in gluon (Freifunk) and upstream. See [PR-692](#) on GitHub.

Why Git?

Why?

- ▶ in 2016 most projects start with Git
- ▶ GitHub
- ▶ lots of projects converted their old VCS to Git
- ▶ distributed (offline) work possible

Why Git?

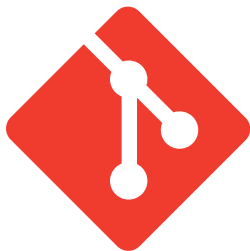
Why?

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Why not?

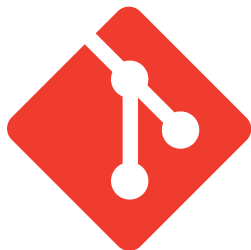
- ▶ the bad things: <https://stevebennett.me/2012/02/24/10-things-i-hate-about-git/>

Learn Git



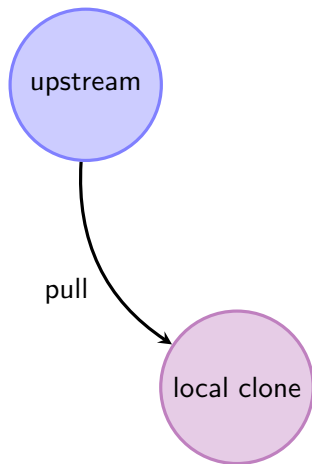
- ▶ Books
 - ▶ e.g. [Pro Git](#)
- ▶ Tutorials
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- ▶ see <https://git-scm.com/doc>

Learn Git



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- ▶ **Use it!**

It's Distributed!



- ▶ add
- ▶ branch
- ▶ checkout
- ▶ commit
- ▶ diff
- ▶ log
- ▶ status

Send Patches

Yes, to mailing lists ...

Do Send

- ▶ clone upstream repository
- ▶ create a local branch
- ▶ work, work ...
- ▶ `git format-patch`
- ▶ `git send-email`

Send Patches

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Do Send

- ▶ clone upstream repository
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Let Pull

- ▶ host your own git server
- ▶ synchronize with upstream **and** your git server
(`git help remote`)
- ▶ write a mail saying someone should pull from your server

Pull Requests

Get some changes from my tree!

- ▶ `git request-pull`
- ▶ click this GitHub button

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What does it mean?

I made some changes and pushed it to my public repository. Would you mind pulling from there to review what I did and maybe integrate it upstream?

Pull Requests

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What does it mean?

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- ▶ upstream maintainer should review patch (series)
- ▶ tools like [patchworks](#) help maintainer
- ▶ <http://www.marmalade.de/magazin/2014/12/pullrequests-fluch-und-segen/>

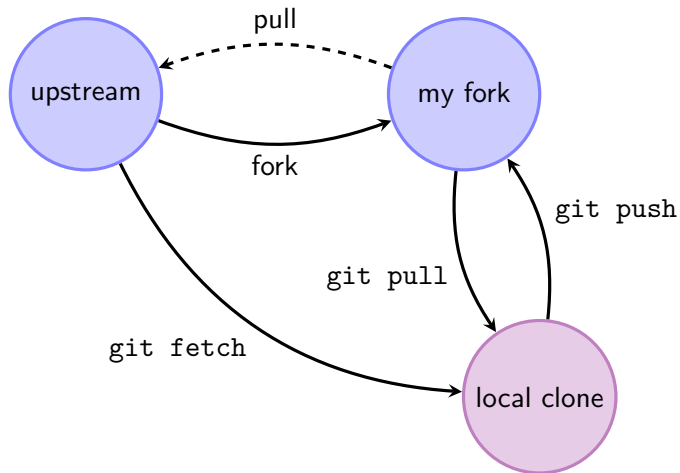
GitHub®



- ▶ Git repository hosting
- ▶ issue tracker
- ▶ wiki
- ▶ easy fork, branch, pull request, merge . . .
- ▶ social net (follower)
- ▶ statistics
- ▶ service integration
- ▶ website hosting
- ▶ (enterprise services)

GitHub Workflow

Looks easier at first sight ...



Patch Improvement

Better Patches

- ▶ change one thing at a time
- ▶ write a good commit message
 - ▶ short first line
 - ▶ one empty line
 - ▶ describe the reason for the change
 - ▶ reference ticket numbers

Patch Improvement

Better Patches

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Patch v2

- ▶ `git format-patch -v4 -M -s -o outgoing origin/master`
- ▶ what can `git rebase` do for you?
- ▶ see [buildroot manual](#) on submitting patches

Contribute Without Git

- ▶ sourcecode and documentation
 - ▶ patch and quilt
 - ▶ other VCS
 - ▶ things not in VCS
 - ▶ ...
- ▶ other categories
 - ▶ you probably won't need a VCS

What Happened Next on the JSON-C Mailing List?

Betreff Re: json-c 0.12.1 release
Von Eric Haszlkiewicz <hawicz@gmail.com> 
Absender json-c@googlegroups.com 
An json-c@googlegroups.com 
Antwort an json-c@googlegroups.com 
Datum 2016-07-27 16:01

On Jul 27, 2016 8:57 AM, "José Bollo" <jose.bollo@iot.bzh> wrote:

I'm volunteer for improving a lot json-c. I have full ideas and good knowledge.

Great! If you have some changes you're thinking of making to json-c feel free to post a message with your idea (w/ a separate subject please). If you have code changes, pull requests are welcome, especially if they include tests and any necessary doc changes.

Eric

--





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Betreff going forward
Von José Bollo <jose.bollo@iot.bzh> 
Absender json-c@googlegroups.com 
An json-c <json-c@googlegroups.com> 
Antwort an json-c@googlegroups.com 
Datum 2016-07-27 18:12

Hi all,

It is a pain for me and for you to read/write long mail thus here are many of my proposals. I already implemented most of it.

- specialize internal structures (partly done)
- avoid to serialize when previous result exist (kind of already done)
- use `size_t` where needed (done)
- serialize to/from `bjson` (half done)
- create a new type "custom" for handling serialisation of both json and `bjson`
- make legacy the model of custom serialisation that has serious drawbacks
- better report errors of serialisation (done)
- reduce the cost in memory (done)
- avoid use of function pointer for serialising (done)
- return status when adding items to dictionaries
- make boolean and empty strings uniques (done)
- make possible to handle a dictionary entries to change it quickly (or iterate over their)
- allow any value as dictionary key

work done for people that have time: <https://gitlab.com/jobol/json-c>

I'm working for embedded systems and would really like to reduce the memory footprint and the performance of `json-c`

I think that it is possible and that the API (that is good) can be preserved.

Feel free to comment and send feedback here

Best regards
Jose Bollo

Legal Stuff

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The Last Slide

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WWW lespocky.de or blog.antiblau.de

Twitter [@LeSpocky](https://twitter.com/LeSpocky)

Slides

- ▶ `hg clone https://bitbucket.org/lespocky/talks`

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