



Reproducible *buster*?

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Introduction

Status update

Issues in detail



Introduction

Reproducible Builds have the purpose to enable anyone to reproduce identical binary packages from a given source.



Project goals

Ensure builds have identical results.

We want to change the meaning of "Free Software": It's only Free Software if it's reproducible!



Other talks

Bornhack, All Systems Go, All ThingsOpen, OSSE, Hackmit, FreeNode Live, CubaConf, Open Compliance Summit, Linux.conf.au, FOSDEM, Scale, NYLUG, LibrePlanet, Easterhegg, MiniDebConf Curitiba, Foss-North, FLOSSUK; and mentioned by several talks at 34C3.



New since DebConf17 Montreal



Migration to salsa.d.o

3rd Reproducible Builds Summit in Berlin

Logo discussion & voting



(This is the final logo, but not the final typeface/colour...)



GCC - fmacro-prefix-map

```
#include <stdio.h>
int main() {
    fprintf(stderr, "error at %s line %l", __FILE__, __LINE__); return 1;
}
```

```
$ /usr/lib/gcc-snapshot/bin/gcc -o main /home/user/main.c
```

```
$ strings main | grep ^/
/lib64/ld-linux-x86-64.so.2
/home/user/main.c
```




New since DebConf17 Montreal

GCC -fmacro-prefix-map

```
#include <stdio.h>
int main() {
    fprintf(stderr, "error at %s line %l", __FILE__, __LINE__); return 1;
}
```

```
$ /usr/lib/gcc-snapshot/bin/gcc -o main -fmacro-prefix-map=/home/user=/build
```

```
$ strings main | grep ^/
/lib64/ld-linux-x86-64.so.2
/build/main.c
```



New since DebConf17 Montreal

#890195: Testing for unnecessary Build-Depends



Other projects

Arch Linux reached ~80% reproducible packages

openSUSE reached 93%

NetBSD and FreeBSD base systems reached 100%

Tails 3.3, 3.6.1 → 100% reproducible ISO images

OpenWrt images (for at least some targets)

Yocto, AngularJS, Please.build, ...



Debian *buster*

“Packages should build reproducibly” added in Debian
Policy 4.1.0.0



What's missing?



Debian installer images

Comparing against packages from the archive



Funding

New progress is slowing down...

Some things go backwards...

Impact on collaboration / community...

We kept up the weekly blog, which could be misleading...



Lack of funding

New progress is slowing down...

Some things go backwards...

Impact on collaboration / community...

We kept up the weekly blog, which could be misleading...

Debian is wrong

93% is a lie. We need infrastructure, processes and policies.
(And testing. Currently we only have testing and a vague goal.)

With the upcoming list of bugs we don't want to fingerpoint at individual teams, instead I think we can only solve this if we as Debian decide we want to solve it for *buster*. I think this is not happening because people believe things have been sorted out and we take care of them. But we are not, we can't do this alone.



Major blockers, where to help

#869184

sbuild, dput, dpkg: source uploads including
`_amd64.buildinfo` causes problems

#894441

binNMUs, mtimes and rsync(1) causes problems and
binNMUs should be replaced by easy "no-change-except-
debian/changelog-uploads"



.buildinfo files

#862073

ftp.debian.org: Please POST .buildinfo files to
buildinfo.debian.net

#763822

ftp.debian.org: please include .buildinfo file in the archive

#862538

security.debian.org: Please POST .buildinfo files to
buildinfo.debian.net



Debian *stretch*

the 'reproducibly in theory but not in practice' release

Debian *buster*

the 'we should be reproducible but we are not' release?

Debian *bullseye*

the 'we are almost there but still haven't sorted out...'
release???



Debian *buster*

the release is still far away and we haven't frozen yet! :-)



Thanks!

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