Tails - Bug #15400
Python files installed in /usr/local/lib break reproducibility
03/13/2018 10:50 AM - bertagaz

Status: Resolved
Priority: Elevated
Assignee:
Category:
Target version: Tails_3.6.1
Feature Branch: bugfix/15400-python-lib-breaks-reproducibility
Type of work: Code
Blueprint:

Start date: 03/13/2018
Due date:
% Done: 100%
Estimated time: 0.00 hour
Spent time: 0.00 hour
Starter:

Description
Since #14680 and the installation of the Tails pythonlib in the ISO, it's not possible to reproduce the ISO anymore.


Related issues:
- Related to Tails - Bug #15421: Improve the implementation of the #15400 bugfix
  Resolved 03/16/2018
- Blocks Tails - Bug #15417: Upgrade Tor Browser to 7.5.2
  Resolved 03/16/2018

Associated revisions

Revision f9cf01b9 - 03/13/2018 11:21 AM - bertagaz
Add reproducibility issue to the 3.6 release note.
Refs: #15400

Revision 6dbd9f55 - 03/16/2018 07:55 AM - intrigeri
Release Manager: make some expectations explicit.

The goal is to avoid issues such as #15400: Jenkins had been telling us for 48 hours that the testing branch did not build reproducibly anymore, but the release manager missed that, built a tentative 3.6 ISO and decided to release it as-is.

refs: #15400

Revision 85d42412 - 03/16/2018 01:20 PM - segfault
Strip dates from Tailslib Python package

Will-fix: #15400

Revision 158b83c2 - 03/16/2018 04:58 PM - intrigeri
Merge branch 'bugfix/15400-python-lib-breaks-reproducibility' into stable (Fix-committed: #15400)
Revision d5fd1ef5 - 05/07/2018 09:50 AM - bertagaz
Merge remote-tracking branch 'origin/bug/15400-python-lib-breaks-reproducibility' into stable
Fix-committed: #15400

History

#1 - 03/13/2018 12:15 PM - bertagaz
- Status changed from Confirmed to In Progress

Applied in changeset f9cf01b9b7af5f4832da455af97fbee3c1ccbf.

#2 - 03/13/2018 08:04 PM - intrigeri
bertagaz wrote:

Since #14680 and the installation of the Tails pythonlib in the ISO, it's not possible to reproduce the ISO anymore.

I suspect you mean something else than #14680.

It would be nice to have some kind of blame-free post-mortem to understand why this problem was not identified early enough in this dev cycle, as in: best case, before the faulty branch was merged; or worst case, before the 3.6 ISO was built. Quite possibly it's not clear who is responsible to notice such problems and ensure they're addressed. I would first like to hear bertagaz' take on it because I guess he's the one who has followed the closest what happened in the 48 hours before the release, after this problem has been diagnosed by our CI. I'll try to start a discussion about this on a more suitable place.

#3 - 03/13/2018 11:07 PM - bertagaz
intrigeri wrote:

I suspect you mean something else than #14680.

right, sorry, I meant #15370 probably, or #11753 (if testing how python apps behave was part of this ticket).

It would be nice to have some kind of blame-free post-mortem to understand why this problem was not identified early enough in this dev cycle, as in: best case, before the faulty branch was merged; or worst case, before the 3.6 ISO was built. Quite possibly it's not clear who is responsible to notice such problems and ensure they're addressed. I would first like to hear bertagaz' take on it because I guess he's the one who has followed the closest what happened in the 48 hours before the release, after this problem has been diagnosed by our CI. I'll try to start a discussion about this on a more suitable place.

I clearly missed this when I reviewed #15370, and it was part of the job. This issue was raised late in the release cycle, and I merged it while having also other hotter branches to review in a timely manner, so I did not pay enough attention to check if the change broke reproducibility. I fixed other issues brought by it though, but did not think reproducibility would be that hit.

05/15/2020
#4 - 03/14/2018 05:06 PM - lamby
Could you update the ticket with a diffoscope HTML URI? The linked one 404s and I can't seem to find the now-relevant job/build. :)

#5 - 03/14/2018 06:39 PM - segfault
- Description updated

Could you update the ticket with a diffoscope HTML URI?

Done.

#6 - 03/14/2018 07:01 PM - segfault
- Assignee changed from segfault to bertagaz
- QA Check set to Ready for QA
- Feature Branch set to bug/15400-python-lib-breaks-reproducibility

Should be fixed by d55d2c0a08d5f5eacf654d7486dfc7a8adcc695 in branch bug/15400-python-lib-breaks-reproducibility in my repo. Assigning to the 3.7 RM, which is bertagaz according our calendar :) 

#7 - 03/14/2018 07:47 PM - segfault

segfault wrote:

Should be fixed by d55d2c0a08d5f5eacf654d7486dfc7a8adcc695 in branch bug/15400-python-lib-breaks-reproducibility in my repo

I had to fix a path, the commit is now cccf81352617406099e9a5b00511ae68a41bb7.

#8 - 03/16/2018 07:58 AM - intrigeri

It would be nice to have some kind of blame-free post-mortem [...] 

I clearly missed this when I reviewed #15370, and it was part of the job. This issue was raised late in the release cycle, and I merged it while having also other hotter branches to review in a timely manner, so I did not pay enough attention to check if the change broke reproducibility. I fixed other issues brought by it though, but did not think reproducibility would be that hit.

Thanks for explaining! I think I've understood the root cause and I hope 6dbd9f55bbcc7d69a013976f0e7000b43c2e7ff will avoid such issues in the future :) Case closed then.
intrigeri wrote:

```
segfault, in the future please fork bugfix branches off stable.
```

Ok, didn't know this, but will try to keep it in mind.

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intrigeri wrote:

```
segfault, in the future please fork bugfix branches off stable.
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intrigeri wrote:

```
segfault, in the future please fork bugfix branches off stable.
```

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Ok, didn't know this

Then I suggest you read https://tails.boum.org/contribute/git/ one of these days :)

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#16 - 03/16/2018 03:21 PM - intrigeri
- Blocks Bug #15417: Upgrade Tor Browser to 7.5.2 added

#17 - 03/16/2018 05:00 PM - intrigeri
- QA Check changed from Ready for QA to Pass

intrigeri wrote:

- Automated test suite: I'll have results in ~1.5 hours and if nothing is wrong I'll merge.

Passes (minus the fragile tests that I did not run) locally except one scenario that is always broken here => merging!

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#18 - 03/16/2018 05:04 PM - intrigeri
- Status changed from In Progress to 11
- % Done changed from 70 to 100

Applied in changeset 158b83c284d8a2489ef993527eece5eff3360348.

#19 - 03/16/2018 05:06 PM - intrigeri
- Assignee deleted (intrigeri)

#20 - 03/16/2018 05:44 PM - segfault

intrigeri wrote:

- Thanks!

  - Code review:
    - wrt. a867dfd898275d60c935c739a676e6dddb99e2847: I don't really get it: why not drop the quotes instead? You're not quoting the same variable a few lines above so it has to be safe for unquoted usage anyway.

You are right. I thought the quotes in strip_nondeterminism_wrapper() in the following line were the cause:

```
strip-nondeterminism "$(@)"
```
But indeed in a quick test (I didn't run the build yet) it seems to work if I just remove the quotes in 00-install-tailslib. I don't understand why, but I'm used to not understanding why bash does weird things.

- I'm not super happy with the fact the implementation will break if the glob ever matches more than one file. Something based on ls or find and loops over the matches would be more robust.

It should not break. I already tested this before, but I see that I should have noted it in the commit message: Both realpath and strip-nondeterminism can take multiple filenames, and then do its work on all of them. So if the glob matches multiple files, they will simply all be stripped.

- segfault, if you agree with the above please give yourself a follow-up ticket for 3.7 or later. But I'm not going to block on this for our 3.6.1 security release.

I just pushed b3429630495744cb9d88471c6389d340db399df2, if you find the time to review it in time for 3.6.1, you could cherry-pick on your branch. Else I can create a follow-up ticket for 3.7.

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#21 - 03/16/2018 05:44 PM - segfault
- Assignee set to intrigeri

#22 - 03/16/2018 05:54 PM - intrigeri
- Assignee deleted (intrigeri)

Let's discuss this on #15421: I'm not going to do the QA of this branch again today.

#23 - 03/16/2018 05:54 PM - intrigeri
- Related to Bug #15421: Improve the implementation of the #15400 bugfix added

#24 - 03/18/2018 06:11 PM - bertagaz
- Status changed from 11 to Resolved