### Tails - Feature #11966

**Feature # 5630 (Resolved): Reproducible builds**

#### Reproducible website build

11/19/2016 03:57 PM - intrigeri

<table>
<thead>
<tr>
<th>Status:</th>
<th>Resolved</th>
<th>Start date:</th>
<th>11/19/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
<td>Due date:</td>
<td></td>
</tr>
<tr>
<td>Assignee:</td>
<td></td>
<td>% Done:</td>
<td>100%</td>
</tr>
<tr>
<td>Category:</td>
<td>Build system</td>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Target version:</td>
<td></td>
<td>Spent time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Feature Branch:</td>
<td>web/11966-deterministic-website</td>
<td>Starter:</td>
<td></td>
</tr>
<tr>
<td>Type of work:</td>
<td>Code</td>
<td>Affected tool:</td>
<td></td>
</tr>
<tr>
<td>Blueprint:</td>
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</tbody>
</table>

**Description**

We include a local copy of the website in the ISO image. It must build reproducibly, somehow. ikiwiki has a deterministic option that should help.

**Related issues:**

- Related to Tails - Bug #11987: ikiwiki includes "Posted" timestamps in some g... Resolved 11/22/2016
- Related to Tails - Feature #12051: Use ikiwiki 3.20161219+ instead of our pat... Resolved 12/21/2016
- Related to Tails - Bug #13531: Use ikiwiki 3.20161219+, again Duplicate 07/29/2017
- Blocks Tails - Bug #12032: The SquashFS creation is not deterministic Resolved 12/14/2016

**Associated revisions**

**Revision a459578c - 11/19/2016 04:02 PM - intrigeri**

Enable ikiwiki's "deterministic" option, and require it when building.

refs: #11966

**Revision 00b542cd - 11/19/2016 09:01 PM - intrigeri**

page.tmpl: drop "Created" comment.

It causes reproducibility issues, and we don't display it anyway.

refs: #11966

**Revision aa3feb64 - 11/19/2016 10:00 PM - intrigeri**

Merge remote-tracking branch 'origin/web/11966-deterministic-website' into feature/5630-deterministic-builds

refs: #11966

**Revision d8fc848a - 11/20/2016 08:12 AM - intrigeri**

Web site: remove the "Last edited" block (refs: #11966).

It causes reproducibility issues and brings little value: e.g. for non-English pages, it boils down to "when the website was last refreshed", which is mostly useless information.

05/15/2020
Install ikiwiki from our builder-jessie APT suite, to make the pagestats plugin output deterministic (refs: #11966).

Patch submitted upstream: https://ikiwiki.info/bugs/pagestats_output_is_not_deterministic/

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Merge remote-tracking branch 'origin/web/11966-deterministic-website'

Fix-committed: #11966

---

Add an explicit publication date to the 3.0 announcement.

refs: #11966

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Fix publication date of old calls for testing (refs: #11966).

Buggy dates make the website fail to build reproducibly.

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Fix "meta date" directives that were translated by mistake.

This is metadata, not strings displayed as-is to users. It must be in a format that Date::Parse can read, which means translating dates into arbitrary language won't cut it.

refs: #11966

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### History

#### #1 - 11/19/2016 03:59 PM - intrigeri
- Feature Branch set to web/11966-deterministic-website

#### #2 - 11/19/2016 04:20 PM - intrigeri
- Assignee set to intrigeri

#### #3 - 11/20/2016 07:17 AM - intrigeri
- Status changed from Confirmed to In Progress
- % Done changed from 0 to 10

Progress!

- ikiwiki's "deterministic" option was enabled; not sure if it buys us much, but it should only improve things;
- the pagestats output issue was reported with a patch: https://ikiwiki.info/bugs/pagestats_output_is_not_deterministic/ -- next step is probably to upload a patched ikiwiki to our builder-jessie overlay APT suite;
- the email address mangling issue was fixed on the topic branch (by using a new "discount" package), that I'll merge into feature/5630-deterministic-builds once anonym has fixed his Git history there; same for the "Created" timestamp issue.
Once my branch will be merged and a patched ikiwiki uploaded, it looks like the "Last edited" timestamp may be the only remaining problem.

inrigeri wrote:

- the pagestats output issue was reported with a patch: [https://ikiwiki.info/bugs/pagestats_output_is_not_deterministic/](https://ikiwiki.info/bugs/pagestats_output_is_not_deterministic/) -- next step is probably to upload a patched ikiwiki to our builder-jessie overlay APT suite;

Uploaded, and web/11966-deterministic-website ensures it is installed in the Vagrant build box.

- it looks like the "Last edited" timestamp may be the only remaining problem.

Fixed on the topic branch.

I did two ISO builds with cleanall from feature/5630-deterministic-builds, that has web/11966-deterministic-website merged in, and the resulting SquashFS'es contain exactly the same website (empty diff output). So please merge the topic branch into master.

Looks great!

This was merged into master.
#9 - 11/22/2016 08:07 AM - intrigeri
- Related to Bug #11987: ikiwiki includes "Posted" timestamps in some generated web pages added

#10 - 11/22/2016 12:45 PM - sajolida
I'm quite happy we got rid of the "Last edited" timestamp!

#11 - 12/21/2016 08:52 AM - intrigeri
- Related to Feature #12051: Use ikiwiki 3.20161219+ instead of our patched one added

#12 - 03/14/2017 06:37 AM - intrigeri
- Status changed from Resolved to In Progress
- Assignee set to intrigeri
- Target version deleted (Tails_2.9.1)
- % Done changed from 100 to 50
- QA Check deleted (Pass)

Actually it's still not 100% reproducible: some of the pages that list other pages (with inline) produce different results, apparently depending on the mtime of source files. I'm on it.

#13 - 03/14/2017 06:41 AM - intrigeri
- Blocks Bug #12032: The SquashFS creation is not deterministic added

#14 - 03/14/2017 11:02 AM - intrigeri
- Status changed from In Progress to Resolved
- Assignee deleted (intrigeri)
- % Done changed from 50 to 100

I've fixed all issues I've seen happen so far. Will reopen if more problems show up.

#15 - 07/29/2017 07:04 AM - intrigeri
- Related to Bug #13531: Use ikiwiki 3.20161219+, again added