Tails Installer rejects working USB drives, pretending they're not "removable"

there are multiple reports about usb sticks working "flawlessly" before, or know as removable, that are now considered by tails installer as non removable.

a user gave us these links:


and


Tails installer seems to search for a "mediaremovable" flag instead of "removable" wrongly detect removable devices as non-removable.

Related issues:
- Related to Tails - Feature #10731: Tails Installer should not allow installing on non-removable USB sticks added
- Duplicated by Tails - Bug #12697: tails-installer rejecting viable usb drives added

Associated revisions

Revision f2be3a7c - 06/15/2017 08:28 AM - intrigeri
Document a workaround for installation/upgrade regression (refs: #12696).

Revision 69ac29c8 - 06/30/2017 04:40 PM - bertagaz
Merge remote-tracking branch 'origin/bugfix/12696-too-strict-removable-check' into stable

Fix-committed: #12696

History

#1 - 06/14/2017 08:29 AM - goupille
- Related to Feature #10731: Tails Installer should not allow installing on non-removable USB sticks added

#2 - 06/14/2017 02:28 PM - intrigeri
- Duplicated by Bug #12697: tails-installer rejecting viable usb drives added

#3 - 06/14/2017 02:32 PM - intrigeri
- Category set to Installation
- Status changed from New to Confirmed
This was also reported by a few people on Reddit already, so it really seems we got something wrong. I want to fix that in Tails 3.1, and in Debian/Ubuntu ASAP. kurono, can you take care of the code part the end of June? If you can't, no big deal, I'll handle it.

#4 - 06/14/2017 02:33 PM - intrigeri

- Subject changed from Tails-installer non-removable device check can be wrong to Tails Installer rejects working USB drives, pretending they're not "removable"

#5 - 06/15/2017 08:21 AM - intrigeri

- Priority changed from Elevated to High

We're taking a lot of heat about this bug, so I'm documenting a workaround as we speak.

#6 - 06/15/2017 08:32 AM - intrigeri

intrigeri wrote:

We're taking a lot of heat about this bug, so I'm documenting a workaround as we speak.

Pushed: https://tails.boum.org/news/version_3.0/#known-issues

#7 - 06/15/2017 09:08 AM - intrigeri

- Status changed from Confirmed to In Progress

Applied in changeset f2be3a7c78b2764bd7bb5769fb19db80cbb87536.

#8 - 06/15/2017 07:28 PM - kurono

- Assignee changed from intrigeri to kurono

intrigeri wrote:

This was also reported by a few people on Reddit already, so it really seems we got something wrong. I want to fix that in Tails 3.1, and in Debian/Ubuntu ASAP. kurono, can you take care of the code part the end of June? If you can't, no big deal, I'll handle it.

ahh sorry about this ;(', I will take care!
kurono wrote:

intrigeri wrote:

This was also reported by a few people on reddit already, so it really seems we got something wrong. I want to fix that in Tails 3.1, and in Debian/Ubuntu ASAP. kurono, can you take care of the code part the end of June? If you can't, no big deal, I'll handle it.

ahh sorry about this :[, I will take care!

So, I have tested with the user's suggested solution:

```
diff --git a/tails_installer/creator.py b/tails_installer/creator.py
index 95a4102..164bb48 100755
--- a/tails_installer/creator.py
+++ b/tails_installer/creator.py
-608,7 +608,7  class LinuxTailsInstallerCreator(TailsInstallerCreator):
       'size': drive.props.size,
       'mounted_partitions': set(),
-       'removable': drive.props.media_removable,
+       'removable': drive.props.removable,
     }
```

and it starts listing again the non-removable virtual USB sticks we were using for testing.
Probably we were not using that variable because of this. I don't have at the moment one of the affected Sanddisk USB's.
If somebody has it, he/she could test it just by applying that minor change to the installer code.
Hey, I just happen to be working on the same topic (USB/SDCARD detection). I was also wondering about how to use the properties reported by UDisks, so I collected the output of 'udisksctl dump' for various devices I had around me. Let me share the result with you.

<table>
<thead>
<tr>
<th>Device \ Property</th>
<th>Vendor</th>
<th>Model</th>
<th>Removable</th>
<th>Ejectable</th>
<th>Media</th>
<th>MediaAvailable</th>
<th>MediaRemovable</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver thing</td>
<td>Generic</td>
<td>Flash Disk</td>
<td>true</td>
<td>true</td>
<td>true</td>
<td>true</td>
<td>true</td>
</tr>
<tr>
<td>Rotterdam School</td>
<td>Generic</td>
<td>Flash Disk</td>
<td>true</td>
<td>true</td>
<td>true</td>
<td>true</td>
<td>true</td>
</tr>
<tr>
<td>DT101 G2</td>
<td>Kingston</td>
<td>DataTraveler 2.0</td>
<td>true</td>
<td>true</td>
<td>thumb</td>
<td>true</td>
<td>false</td>
</tr>
<tr>
<td>DataTraveler G3</td>
<td>Kingston</td>
<td>DataTraveler 3.0</td>
<td>true</td>
<td>true</td>
<td>thumb</td>
<td>true</td>
<td>false</td>
</tr>
<tr>
<td>Mem Up 4GB</td>
<td>090c</td>
<td>POP KEY</td>
<td>true</td>
<td>true</td>
<td></td>
<td>true</td>
<td>true</td>
</tr>
<tr>
<td>iPod Classic</td>
<td>Apple</td>
<td>iPod Classic</td>
<td>true</td>
<td>true</td>
<td></td>
<td>true</td>
<td>true</td>
</tr>
<tr>
<td>SDIO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samsung 16EVO</td>
<td>00000</td>
<td>true</td>
<td>false</td>
<td>flash_sd</td>
<td>true</td>
<td>true</td>
<td></td>
</tr>
<tr>
<td>Marantz SDHC</td>
<td>AF SD</td>
<td>true</td>
<td>false</td>
<td>flash_sd</td>
<td>true</td>
<td>true</td>
<td></td>
</tr>
<tr>
<td>OPTICAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVD Drive</td>
<td>TSSTcorp</td>
<td>CDDVDW ...</td>
<td>true</td>
<td>true</td>
<td></td>
<td>depends</td>
<td>true</td>
</tr>
</tbody>
</table>

So it looks like MediaRemovable and Ejectable can't be trusted to detect removable devices.

#12 - 06/23/2017 10:17 AM - intrigeri
- % Done changed from 0 to 10

My current plan is to:

1. short-term fix: apply the s/media_removable/removable/ change in order to fix the regression that is harming too many users and the current situation is way worse than the problems #10731 tried to fix
2. reopen #10731, because as kurono says, the above fix will essentially revert to what we did before the branch for #10731 was merged, and thus
the two problems #10731 was about will be back
3. leave it to kurono to address #10731 if you want; I'll leave some notes on that ticket to explain how I understand the problem

#13 - 06/23/2017 10:25 AM - intrigeri
- Assignee changed from intrigeri to bertagaz
- % Done changed from 10 to 20
- QA Check set to Ready for QA
- Feature Branch set to bugfix/12696-too-strict-removable-check

Please review, merge into master, and then follow https://tails.boum.org/contribute/release_process/tails-installer/. The sooner, the better: we can upload the fixed package to Debian and Ubuntu without waiting for Tails 3.1, which will solve the problem for many people.

#14 - 06/29/2017 06:40 AM - intrigeri
I see a discrepancy:

```
tails-installer | 4.4.16+dfsg-0tails1 |       devel | amd64, source
tails-installer | 4.4.17+dfsg-0tails1 |      stable | amd64, source
```

Besides, usually (except at release time) we would upload to a topic branch, using the APT overlays mechanism, so we can test the proposed package before it goes in any release branch. No big deal this time, but please keep this in mind for the rest of your RM'ing cycle :)

#15 - 06/29/2017 10:47 AM - bertagaz
intrigeri wrote:

```
I see a discrepancy:

[...]

Besides, usually (except at release time) we would upload to a topic branch, using the APT overlays mechanism, so we can test the proposed package before it goes in any release branch. No big deal this time, but please keep this in mind for the rest of your RM'ing cycle :)
```

Yes, the APT overlay mechanism completely got out of my head, struggling as I was with this package release process. I'll delete the one I uploaded in stable and will upload it in a topic branch/suite. The cleaner the better.

#16 - 06/29/2017 05:07 PM - intrigeri
It looks very much like you didn't import updated translations from Transifex. https://tails.boum.org/contribute/release_process/ explains how to do so.
Sorry the individual packages' release process doesn't.

#17 - 06/30/2017 06:19 AM - intrigeri
- Target version changed from Tails_3.1 to Tails_3.0.1

#18 - 06/30/2017 10:26 AM - bertagaz
- QA Check changed from Ready for QA to Dev Needed

intrigeri wrote:

It looks very much like you didn't import updated translations from Transifex. https://tails.boum.org/contribute/release_process/ explains how to do so. Sorry the individual packages' release process doesn't.

Indeed I didn't. I've been trying to do so since yesterday, but it seems that the imported translations break the build of the package. It fails at the dpkg-source time and I'm struggling to get how to fix that.

#19 - 06/30/2017 10:47 AM - intrigeri

it seems that the imported translations break the build of the package. It fails at the dpkg-source time and I'm struggling to get how to fix that.

The translations shall be imported on the master branch, otherwise dpkg-source will complain about upstream files being modified.

What error do you see?

#20 - 06/30/2017 11:27 AM - bertagaz

intrigeri wrote:

it seems that the imported translations break the build of the package. It fails at the dpkg-source time and I'm struggling to get how to fix that.

The translations shall be imported on the master branch, otherwise dpkg-source will complain about upstream files being modified.

That's what I've done, it's in master.

What error do you see?
I get this:

```
$ ARCH=amd64 DIST=stretch BUILDER=pbuilder sudo gbp buildpackage
dpkg-source: info: applying tails-installer-as-helper
dh_clean --with python2
dh_testdir
debian/rules override_dh_auto_clean
make[1]: Entering directory '/home/build/deb_packages/liveusb-creator.git'
dh_auto_clean
    python setup.py clean -a
running clean
removing 'build/mo' (and everything under it)
removing 'build/lib-linux-x86_64-2.7' (and everything under it)
'build/bdist-linux-x86_64' does not exist -- can't clean it
removing 'build/scripts-2.7' (and everything under it)
removing 'build'
    find . -name '*.pyc' -exec rm {} \+
rm -f tails-installer.1 tails-installer-launcher.1
make[1]: Leaving directory '/home/build/deb_packages/liveusb-creator.git'
dh_clean
dpkg-source: info: using source format '3.0 (quilt)'
dpkg-source: info: building tails-installer using existing ./tails-installer_4.4.18+dfsg.orig.tar.gz
dpkg-source: info: local changes detected, the modified files are:
    liveusb-creator.git/data/tails-installer-launcher.ui.h
liveusb-creator.git/data/tails-installer-launcher.ui.h
dpkg-source: error: aborting due to unexpected upstream changes, see /tmp/tails-installer_4.4.18+dfsg-0tails1.diff.stFHyY
dpkg-source: info: you can integrate the local changes with dpkg-source --commit
gbp:error: 'pdebuild' failed: it exited with 2
```

Indeed some languages have quite some changes for the *.ui.h files mentioned.

I've just built the persistence-setup package, and it went fine (so that lower the risk of some mis-configuration in my build setup). I'm following the tails-installer release process from what's currently in the master branch.
#21 - 06/30/2017 11:37 AM - intrigeri

You've run git clean -fdx as documented, right?

Please push all your current WIP branches so I can try to reproduce.

#22 - 06/30/2017 11:56 AM - bertagaz

- QA Check changed from Dev Needed to Ready for QA

intrigeri wrote:

You've run git clean -fdx as documented, right?

Grmh, no I jumped this step. Works fine now, uploaded a newer package with translations updated, let see if Jenkins find new problems or not.

#23 - 06/30/2017 04:46 PM - bertagaz

- Status changed from In Progress to 11
- Assignee deleted (bertagaz)
- % Done changed from 20 to 100
- QA Check changed from Ready for QA to Pass

bertagaz wrote:

Grmh, no I jumped this step. Works fine now, uploaded a newer package with translations updated, let see if Jenkins find new problems or not.

Jenkins doesn't not complain so this is now merged.

#24 - 07/05/2017 07:03 PM - intrigeri

- Status changed from 11 to Resolved

#25 - 07/08/2017 04:23 AM - GigabyteProductions

In addition to correcting the detection of removable media, is there a reason not to allow users to install onto non-removable media, besides trying to protect users from themselves?

#26 - 07/08/2017 11:37 AM - Anonymous

GigabyteProductions wrote:

In addition to correcting the detection of removable media, is there a reason not to allow users to install onto non-removable media, besides trying to protect users from themselves?
Yes.

Tails also uses the live-media=removable boot parameter while would make Tails fail to boot on non-removable drives.

#27 - 07/09/2017 02:55 PM - GigabyteProductions

While I understand that Tails has a responsibility to protect users from harming themselves, there comes a point where Tails prevents users who know what they are doing, or know exactly what they want to do, from being able to operate at all. I think that providing an option to allow installing onto non-removable storage is necessary, even if it makes users jump through hoops to accept the consequences. Not providing an option or telling people "Tails is not for your use case" encourages users to use some other solution entirely, which produces split/duplicate effort.

#28 - 07/17/2017 04:00 PM - intrigeri

GigabyteProductions, I believe #6397 will address your concerns... once someone does the work it requires.