

**NAME**

guestfs-release-notes – libguestfs Release Notes

**RELEASE NOTES FOR LIBGUESTFS 1.6**

These release notes only cover the differences from the previous stable/dev branch split (1.4.0). For detailed changelogs, please see the git repository, or the ChangeLog file distributed in the tarball.

**New features**

- Use a new method for creating and caching the appliance. This greatly improves the performance of libguestfs, often by a factor of x 4 to x 5.
- Support for guest inspection (like virt-inspector) via the ordinary API and all language bindings. 'guestfish -i' option is as a side-effect much quicker.
- virt-inspector and core inspection API can now detect guests running: Fedora, Debian, Ubuntu, Windows, Red Hat Enterprise Linux, CentOS, Scientific Linux, Gentoo, Pardus, Arch Linux, MeeGo.
- Support for LUKS whole-disk encryption in guests.
- PHP bindings.
- Progress messages (and progress bars in guestfish and virt-resize) for certain long-running operations.
- virt-df is now much more efficient. Use '--one-per-guest' to restore the old per-guest isolation behaviour.
- guestfish 'copy-in' and 'copy-out' commands for copying files and directories recursively in and out of the guest.
- guestfish 'hexedit' command for doing binary edits to devices and files.
- Change guestfish -i syntax to allow commands to be specified on the command line (retaining backwards compatibility).
- guestfish '-d <domain>' for adding disks from libvirt domains.
- guestfish '-N' option supports several new prepared disk image types:
  - lvfs : disk with LV formatted with filesystem
  - lv : disk with LV
  - bootroot : boot+root
  - bootrootlv : boot and root on LV
- guestfish 'more' and 'edit' commands now work with arbitrary files.
- guestfish '--echo-keys' option allows you to echo keys/passphrases while typing them.
- guestmount now supports -a / -d / -i options, like guestfish.
- Use virtio-serial for communications with the appliance. This also has a major performance benefit.

- virt-edit '-b' option to create a backup of edited files.
- virt-edit '-e' option for non-interactive edits to files.
- Ability to capture core dumps from the appliance (thanks Matthew Booth).
- virt-rescue now shuts down cleanly (thanks Matthew Booth).
- virt-rescue now has a --network option to enable network access.
- virt-resize can now handle guests which use GPT partition table format.
- virt-resize has better support for shrinking guests.
- virt-resize supports qcow2-format guests.
- \$TMPDIR can be used to override almost all temporary directory usage.
- OCaml users can use an alternate OO-style of coding, eg. g#launch ()
- The API supports calls which take optional parameters, eg.  
`$g->add_drive_opts ("disk", readonly => 1);`
- Trace output now escapes and shortens large strings (thanks Matthew Booth).
- Autosync is now on by default, resulting in more reliable behaviour when the handle is closed.
- virt-df --uuid option allows you to follow a domain across migration and renaming.
- Translations of manual pages.

### Security

- CVE-2010-3851 libguestfs: missing disk format specifier when adding a disk  
<https://www.redhat.com/archives/libguestfs/2010-October/msg00036.html>  
 This is comprehensively fixed in this release, and the fix will be backported to the other stable branches after more testing.
- virt-inspector no longer relies on untrusted guest code to list applications in some guests.

### New APIs

download-offset, file-architecture, findfs-label, findfs-uuid,  
 inspect-os, inspect-get-arch, inspect-get-distro,  
 inspect-get-filesystems, inspect-get-major-version,  
 inspect-get-minor-version, inspect-get-mountpoints,  
 inspect-get-product-name, inspect-get-type, is-blockdev, is-chardev,  
 is-fifo, is-lv, is-socket, is-symlink, list-filesystems, luks-add-key,  
 luks-close, luks-format, luks-format-cipher, luks-kill-slot,  
 luks-open, luks-open-ro, lvm-clear-filter, lvm-canonical-lv-name,  
 lvm-set-filter, part-to-dev, pread-device, pwrite-device,  
 upload-offset

**Internals**

- Use `size_t` for loop iterators.
- Refactor the library code into separate files.
- Refactor the generator code into separate files.
- Generate `guestfish` commands.
- `guestfish` & `guestmount` options processing is unified.
- Protocol changes:
  - error message size increased to 64K
  - send `errno` to library
- Add 'make bindist' to make a binary distribution.
- Cleaner behaviour under `valgrind`.
- More testing of the `guestfish` command line options and `libvirt` integration.
- The Perl inspection code is no longer used by any of the tools.

**Bugs fixed**

- 646822 `libguestfs` trace mode should not print long binary strings
- 646821 `virt-df` should have `--uuid` option
- 646432 `/dev/mapper` paths should not be returned from `guestfs_mountpoints`
- 643624 `libguestfs` tools documentation should describe how to quote guest domain
- 642934 No way to specify disk format when adding a disk to `libguestfs`
- 642933 `guestfs_list_filesystems` should be used in all possible places
- 642932 `guestmount` options should match `guestfish` options
- 642930 `virt-inspector` (`Sys::Guestfs::Lib`) should use C inspection APIs
- 642929 C inspection code should ignore `/dev/fd*` in `/etc/fstab`
- 642826 `virt-resize` converts any other image format to raw without notifying us
- 640961 Document that `grub-install` might be needed for old Linux guests after v
- 639986 `virt-df --csv` does not properly quote " in `libvirt` domain names
- 639405 Interrupted cached appliance creation leaves `libguestfs` unusable
- 638901 Appliance filename should not contain repository name
- 638899 `/dev/mapper` paths should not be returned from C inspection APIs
- 636918 Updates to Spanish translation
- 636061 [abrt] `guestfish-1.2.11-1.fc12: malloc_consolidate: Process /usr/bin/gu`
- 635969 `glob echo mkfs ext2 /dev/vd[b-t]l` prints garbage
- 634246 `guestfs_part_get_parttype` returns "loop" when run against a partition, l
- 633766 `virt-resize --shrink` fails
- 633357 Updates to Spanish translation
- 633096 `virt-resize` calculates block device size incorrectly, doesn't work with
- 629593 Dutch translation added
- 627556 Updates to Spanish translations of `libguestfs`
- 626843 Updates to Spanish translations
- 619793 [RFE] Need a way to determine if a particular block device is a logical
- 618556 `virt-rescue` return none zero value when exit
- 617200 mount operation failed and hung on some images which running in read-on
- 610880 `libguestfs` should set broader read perms on `tmpdir`, so works in some si
- 599503 document that `mkmountpoint` and `umount-all` cannot be mixed
- 571714 Running `virt-df` on disk image relabels it, so `qemu` can no longer write
- 502533 Updated Polish translation of `libguestfs`

**SEE ALSO**

`guestfs-examples` (1), `guestfs-faq` (1), `guestfs-performance` (1), `guestfs-recipes` (1), `guestfs-testing` (1), `guestfs` (3), `guestfish` (1), <http://libguestfs.org/>

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## BUGS

To get a list of bugs against libguestfs, use this link:  
<https://bugzilla.redhat.com/buglist.cgi?component=libguestfs&product=Virtualization+Tools>

To report a new bug against libguestfs, use this link:  
[https://bugzilla.redhat.com/enter\\_bug.cgi?component=libguestfs&product=Virtualization+Tools](https://bugzilla.redhat.com/enter_bug.cgi?component=libguestfs&product=Virtualization+Tools)

When reporting a bug, please supply:

- The version of libguestfs.
- Where you got libguestfs (eg. which Linux distro, compiled from source, etc)
- Describe the bug accurately and give a way to reproduce it.
- Run **libguestfs-test-tool** (1) and paste the **complete, unedited** output into the bug report.