1.6.3

GIT v1.6.3 Release Notes ========================

With the next major release, "git push" into a branch that is currently checked out will be refused by default. You can choose what should happen upon such a push by setting the configuration variable receive.denyCurrentBranch in the receiving repository.

To ease the transition plan, the receiving repository of such a push running this release will issue a big warning when the configuration variable is missing. Please refer to:

```
https://archive.kernel.org/oldwiki/git.wiki.kernel.org/index.php/GitFaq.html#non-bare
https://lore.kernel.org/git/7vbptlsuyv.fsf@gitster.siamese.dyndns.org/
```

for more details on the reason why this change is needed and the transition plan.

For a similar reason, "git push $there :$killed" to delete the branch $killed in a remote repository $there, if $killed branch is the current branch pointed at by its HEAD, gets a large warning. You can choose what should happen upon such a push by setting the configuration variable receive.denyDeleteCurrent in the receiving repository.

When the user does not tell "git push" what to push, it has always pushed matching refs. For some people it is unexpected, and a new configuration variable push.default has been introduced to allow changing a different default behaviour. To advertise the new feature, a big warning is issued if this is not configured and a git push without arguments is attempted.

Updates since v1.6.2 ----------

(subsystems)

- various git-svn updates.
- git-gui updates, including an update to Russian translation, and a fix to an infinite loop when showing an empty diff.
- gitk updates, including an update to Russian translation and improved Windows support.

(performance)

- many uses of lstat(2) in the codepath for "git checkout" have been optimized out.

(usability, bells and whistles)

- Boolean configuration variable yes/no can be written as on/off.
- rsync:/path/to/repo can be used to run git over rsync for local repositories. It may not be useful in practice; meant primarily for testing.
- http transport learned to prompt and use password when fetching from or pushing to http://user@host.xz/ URL.
- (msysgit) progress output that is sent over the sideband protocol can be handled appropriately in Windows console.
- "--pretty=<style>" option to the log family of commands can now be spelled as "--format=<style>". In addition, --format=%formatstring is a short-hand for --pretty=tformat:%formatstring.
- "--oneline" is a synonym for "--pretty=oneline --abbrev-commit".
- "--graph" to the "git log" family can draw the commit ancestry graph in colors.
- If you realize that you botched the patch when you are editing hunks with the ’edit’ action in git-add -i/-p, you can abort the editor to tell git not to apply it.
- @{-1} is a new way to refer to the last branch you were on introduced in 1.6.2, but the initial implementation did not teach this to a few commands. Now the syntax works with "branch -m @{-1} newname".
- git-archive learned --output=<file> option.
- git-archive takes attributes from the tree being archived; strictly speaking, this is an incompatible behaviour change, but is a good one. Use --worktree-attributes option to allow it to read attributes from the work tree as before (deprecated git-tar tree command always reads attributes from the work tree).
- git-bisect shows not just the number of remaining commits whose goodness is unknown, but also shows the estimated number of remaining rounds.
- You can give --date=<format> option to git-blame.
- "git-branch -r" shows HEAD symref that points at a remote branch in interest of each tracked remote repository.
- "git-branch -v -v" is a new way to get list of names for branches and the "upstream" branch for them.
- git-config learned -e option to open an editor to edit the config file directly.
- git-clone runs post-checkout hook when run without --no-checkout.

- git-difftool is now part of the officially supported command, primarily maintained by David Aguilar.
- git-for-each-ref learned a new "upstream" token.
- git-format-patch can be told to use attachment with a new configuration, format.attach.
- git-format-patch can be told to produce deep or shallow message threads.
- git-format-patch can be told to always add sign-off with a configuration variable.
- git-format-patch learned format.headers configuration to add extra header fields to the output. This behaviour is similar to the existing --add-header=<header> option of the command.
- git-format-patch gives human readable names to the attached files, when told to send patches as attachments.
- git-grep learned to highlight the found substrings in color.
- git-imap-send learned to work around Thunderbird's inability to easily disable format=flowed with a new configuration, imap.preformattedHTML.
- git-rebase can be told to rebase the series even if your branch is a descendant of the commit you are rebasing onto with --force-rebase option.
- git-rebase can be told to report diffstat with the --stat option.
- Output from git-remote command has been vastly improved.
- "git remote update --prune $remote" updates from the named remote and then prunes stale tracking branches.
- git-send-email learned --confirm option to review the Cc: list before sending the messages out.

(developers)

- Test scripts can be run under valgrind.
- Test scripts can be run with installed git.
- Makefile learned 'coverage' option to run the test suites with coverage tracking enabled.
- Building the manpages with docbook-xsl between 1.69.1 and 1.71.1 now requires setting DOCBOOK_SUPPRESS_SP to work around a docbook-xsl bug. This workaround used to be enabled by default, but causes problems with newer versions of docbook-xsl. In addition, there are a few more knobs you can tweak to work around issues with various versions of

the docbook-xsl package. See comments in Documentation/Makefile for details.

- Support for building and testing a subset of git on a system without a working perl has been improved.

Fixes since v1.6.2 ------------------

All of the fixes in v1.6.2.X maintenance series are included in this release, unless otherwise noted.

Here are fixes that this release has, but have not been backported to v1.6.2.X series.

- "git-apply" rejected a patch that swaps two files (i.e. renames A to B and B to A at the same time). May need to be backported by cherry picking d8c81df and then 7fac0ee).

- The initial checkout did not read the attributes from the .gitattribute file that is being checked out.

- git-gc spent excessive amount of time to decide if an object appears in a locally existing pack (if needed, backport by merging 69e020a).

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