Maintaining the Neovim project

Notes on maintaining the Neovim project.

General guidelines

- Decide by cost-benefit
- · Write down what was decided
- · Constraints are good
- Use automation to solve problems
- Never break the API... but sometimes break the UI

Ticket triage

In practice we haven't found a way to forecast more precisely than "next" and "after next". So there are usually one or two (at most) planned milestones:

- Next bugfix-release (1.0.x)
- Next feature-release (1.x.0)

The forecasting problem might be solved with an explicit priority system (like Bram's todo.txt). Meanwhile the Neovim priority system is defined by:

- · PRs nearing completion.
- Issue labels. E.g. the +plan label increases the ticket's priority merely for having a plan written down: it is closer to completion than tickets without a plan.
- Comment activity or new information.

Anything that isn't in the next milestone, and doesn't have a finished PR—is just not something you care very much about, by construction. Post-release you can review open issues, but chances are your next milestone is already getting full...:)

Release policy

Release "often", but not "early".

The (unreleased) master branch is the "early" channel; it should not be released if it's not stable. High-risk changes may be merged to master if the next release is not imminent.

For maintenance releases, create a release-x.y branch. If the current release has a major bug:

- 1. Fix the bug on master .
- 2. Cherry-pick the fix to release-x.y.
- 3. Cut a release from release-x.y.
 - Run ./scripts/release.sh
 - Update (force-push) the remote stable tag.
 - The <u>nightly job</u> will update the release assets based on the stable tag.

The neovim repository includes a backport github action. In order to trigger the action, a PR must be labeled with a label matching the form backport release-0.X. If the label is applied before the PR is merged, the backport will be filed automatically against the target branch. Otherwise, comment backport on the merged PR after the label has been applied to trigger a backport. Note, the PR must have a description in the issue body, or the backport will fail.

Third-party dependencies

These "bundled" dependencies can be updated by bumping their versions in third-party/CMakeLists.txt:

- Lua
- <u>LuaJIT</u>
- <u>Luv</u>
- <u>libtermkey</u>
- <u>libuv</u>
- <u>libvterm</u>
- <u>lua-compat</u>
- tree-sitter

scripts/bump-dep.sh is a script that can automate this process for LuaJIT , Luv , libuv & tree-sitter . See usage guide:

- Run ./scripts/bump-deps.sh --dep Luv --version 1.43.0-0 to update a dependency. See ./scripts/bump-deps.sh -h for more detailed usage
- Run ./scripts/bump-deps.sh --pr to create a pr To generate the default PR title and body, the script uses the most recent commit (not in master) with prefix build(deps):

These dependencies are "vendored" (inlined), we need to update the sources manually:

- <u>libmpack</u>
- xdiff
- <u>lua-cjson</u>
- Klib

We also maintain some forks, particularly for Windows, if we are waiting on upstream changes: https://github.com/neovim/neovim/neovim/wiki/Deps

See also

- https://github.com/neovim/neovim/issues/862
- https://github.com/git/git/blob/master/Documentation/howto/maintain-git.txt