

# GHC development flow

*walking guide for new contributors*

Takenobu T.

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WIP

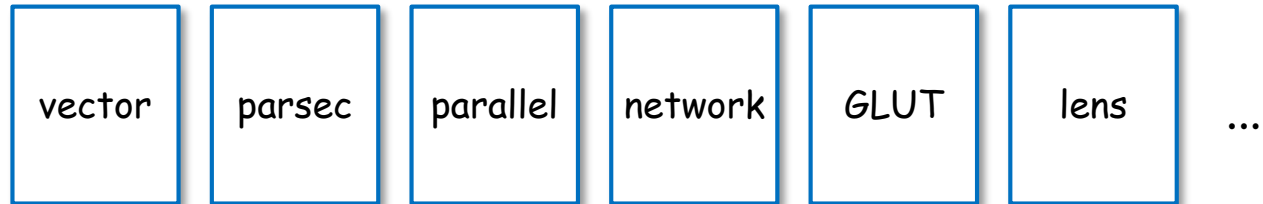
## NOTE

- This is not an official document by the ghc development team.
- Please refer to the official documents in detail.
- This information is current as of Oct, 2016.

Overall relationship

# Development layers

Haskell packages



GHC compiler  
+ Core Libraries

**GHC compiler**

Compiler + Runtime system

Main ML : [ghc-devs at haskell.org](#) [1]  
Steering by [GHC Committee](#) [2]

Haskell Core Libraries

base, array, process,...

Main ML : [libraries at haskell.org](#) [3]  
Steering by [Core Libraries Committee](#) [4]

Haskell Language

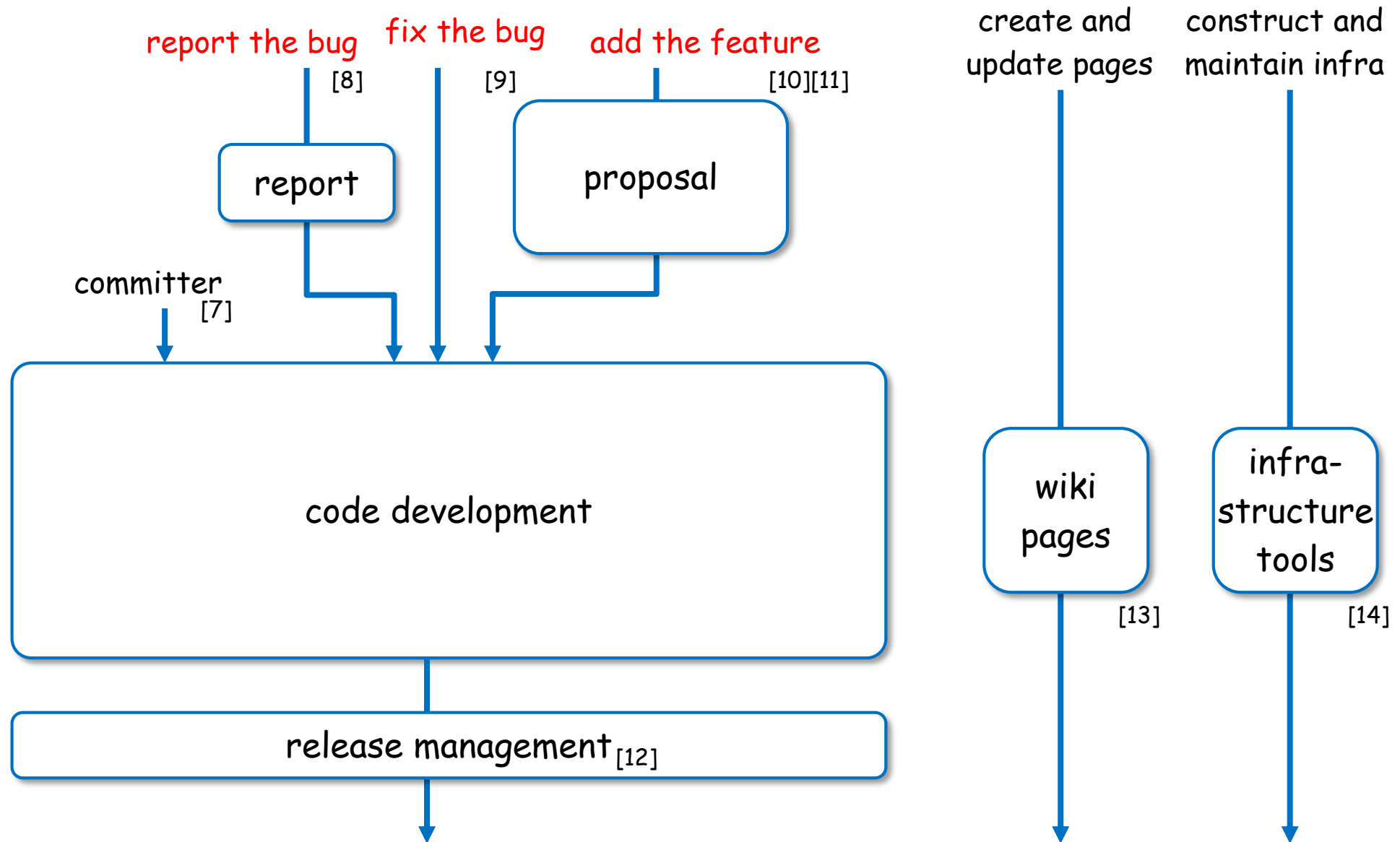
Language Report

Haskell 98, Haskell 2010,  
Haskell 2020

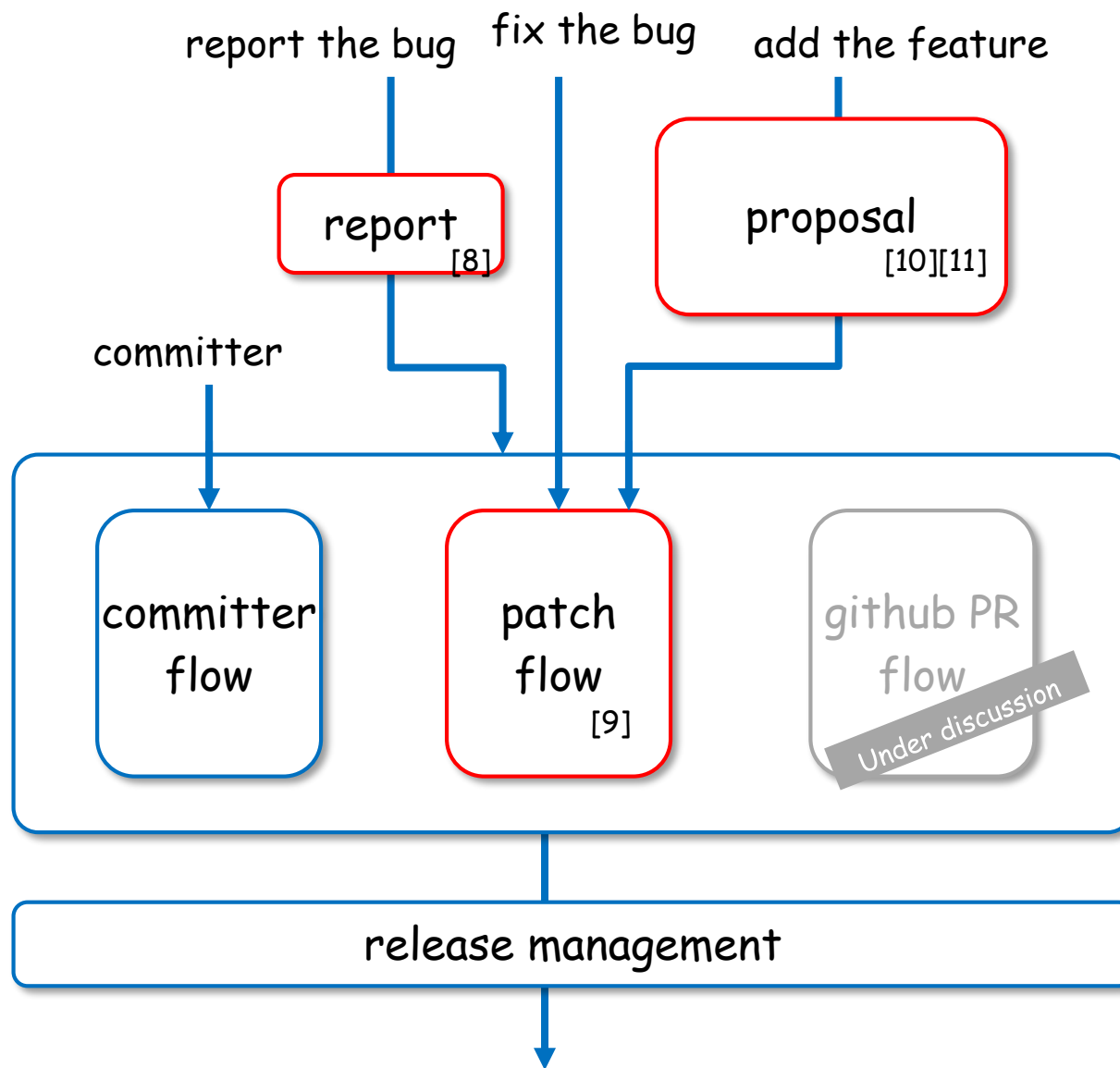
Main ML : [haskell-prime at haskell.org](#) [5]  
Steering by [Haskell 2020 Committee](#) [6]

GHC compiler development flow

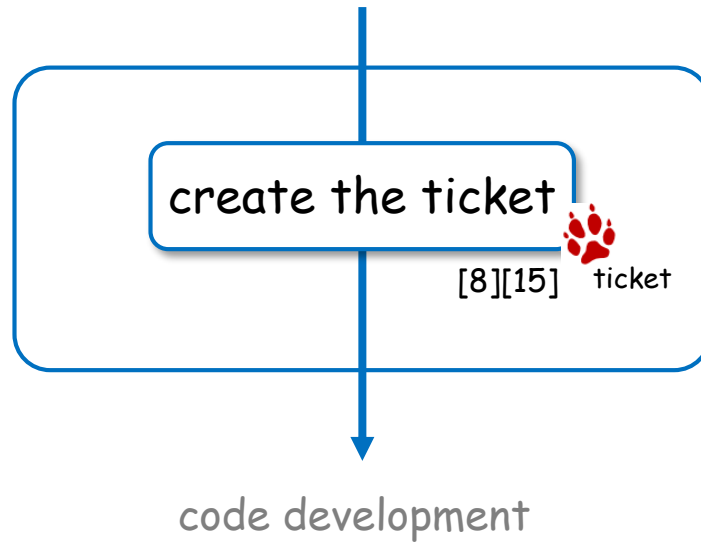
# GHC compiler development flow (overview)



# GHC compiler code development flow



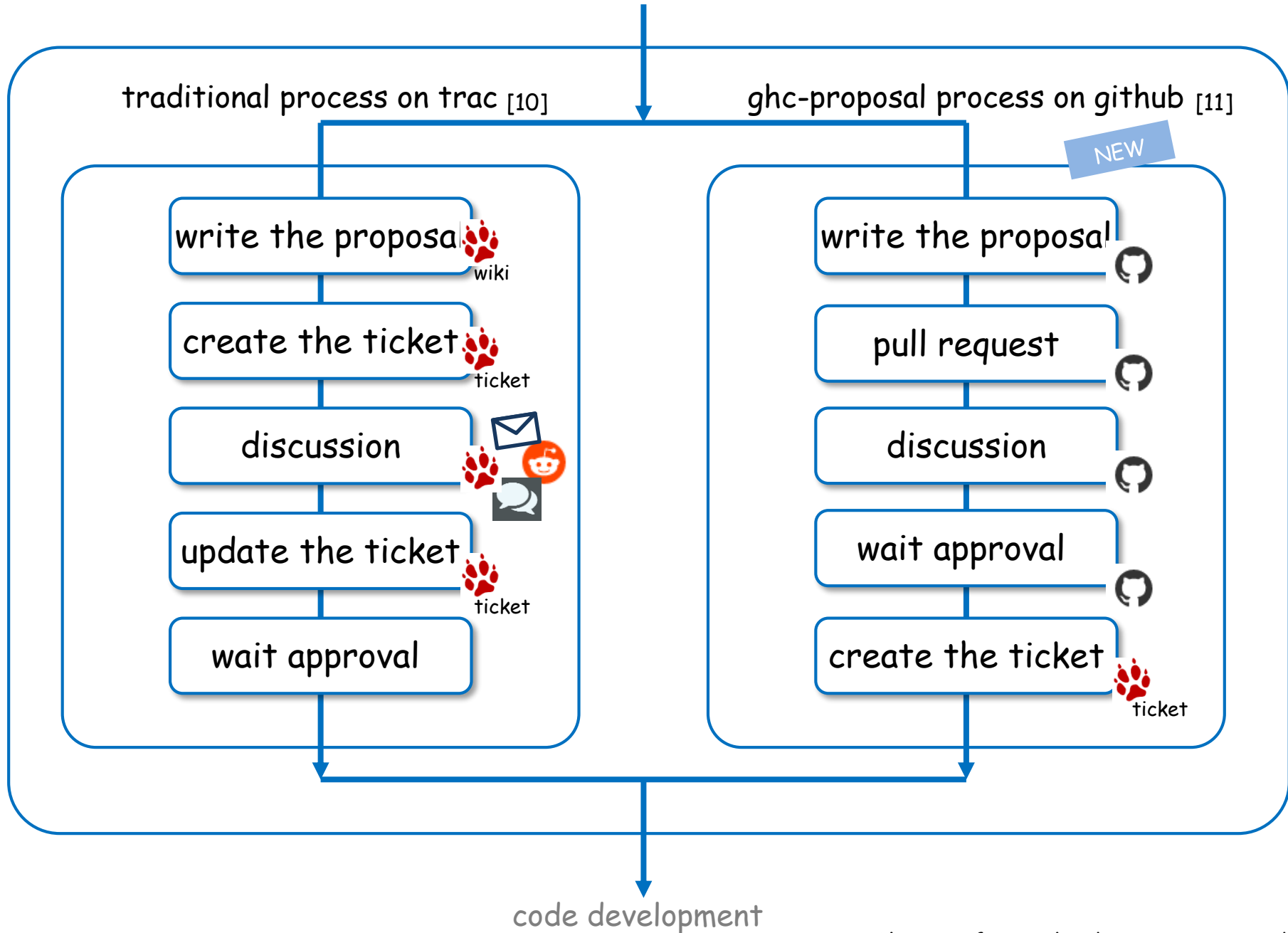
# Report flow



Please consult ghc-devs ML if you worry.

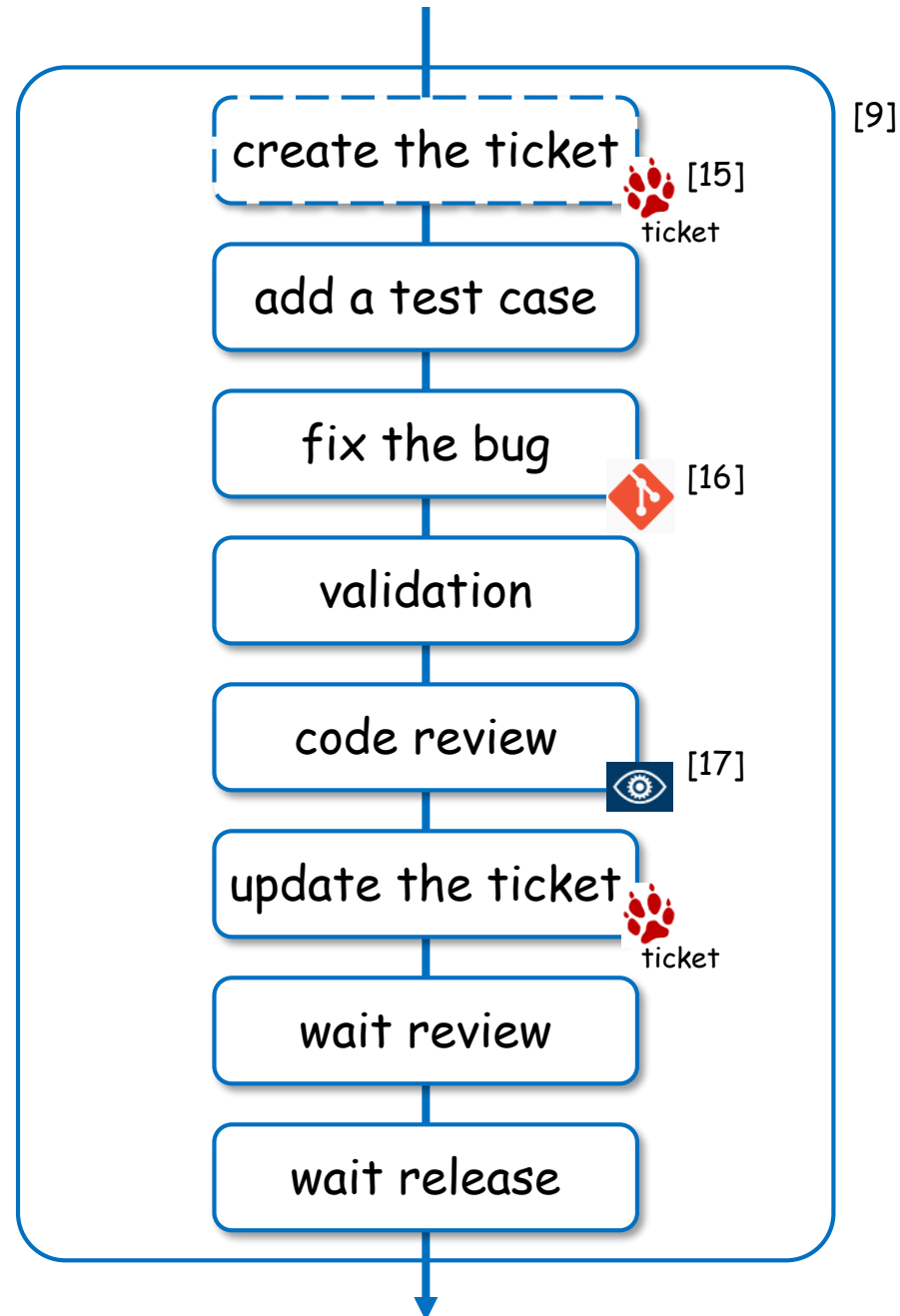


# Proposal flow



Please refer to the documentation in details.

# Patch flow



Please refer to the documentation in details.

Infrastructure tools

# Tool relation

communication

discussion

ghc-devs ML



[1]

information

Trac (wiki)



[13]

wiki

issue tracking,  
discussion and PR

Github



[11]

issue tracking  
and discussion

Trac (ticket)



[15]

ticket

code review

Phabricator



[17]

phabricator cli

Arcinst



[17]

automated build

Harbormaster



[18]

code repository

Git



[16]

various builds

GHC builder

[19]

code management

performance  
regression

Perf

[20]

## References

# References

- [1] *ghc-devs* -- GHC development discussion  
<https://mail.haskell.org/mailman/listinfo/ghc-devs>
- [2] Call for Nominations: *GHC Steering Committee*  
<https://ghc.haskell.org/trac/ghc/blog/steering-committee-cfn>
- [3] *Libraries* -- Discussion about libraries for Haskell  
<https://mail.haskell.org/cgi-bin/mailman/listinfo/libraries>
- [4] *Core Libraries Committee*  
[https://wiki.haskell.org/Core\\_Libraries\\_Committee](https://wiki.haskell.org/Core_Libraries_Committee)
- [5] *Haskell-prime* -- Haskell' - A Haskell Standard Revision - discussion list  
<https://mail.haskell.org/cgi-bin/mailman/listinfo/haskell-prime>
- [6] *Welcome to Haskell'*  
<https://prime.haskell.org/>
- [7] *The Glasgow Haskell Team*  
<https://ghc.haskell.org/trac/ghc/wiki/TeamGHC>
- [8] *Reporting bugs in GHC*  
<https://ghc.haskell.org/trac/ghc/wiki/ReportABug>
- [9] *How to contribute a patch to GHC*  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions/FixingBugs>
- [10] *How to contribute a new feature to GHC*  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions/AddingFeatures>

# References

- [11] GHC Proposals  
<https://github.com/ghc-proposals/ghc-proposals>
- [12] Release management and branches  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions/Releases>
- [13] Welcome to the GHC Developer Wiki  
<https://ghc.haskell.org/trac/ghc/wiki>
- [14] Developer's Infrastructure  
<https://ghc.haskell.org/trac/ghc/wiki/Infrastructure>
- [15] The Bug Tracker  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions/BugTracker>
- [16] Using git with GHC  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions/Git>
- [17] Using Phabricator for GHC development  
<https://ghc.haskell.org/trac/ghc/wiki/Phabricator>
- [18] Harbormaster: continuous integration & patch building for GHC  
<https://ghc.haskell.org/trac/ghc/wiki/Phabricator/Harbormaster>
- [19] The GHC Builder  
<https://ghc.haskell.org/trac/ghc/wiki/Builder>
- [20] perf  
<https://perf.haskell.org/ghc/>

# References

See also

- [21] Working on GHC  
<https://ghc.haskell.org/trac/ghc/wiki/WorkingConventions>
- [22] Resources for newcomers to GHC  
<https://ghc.haskell.org/trac/ghc/wiki/Newcomers>
- [23] Haskell :: Reddit  
<https://www.reddit.com/r/haskell/>
- [24] IRC Channels  
<https://www.haskell.org/irc>  
<http://ircbrowse.net/ghc>