

# Changelog

## v1.4.7 / 2018-01-09

- BSD/macOS: Fix possible deadlock on closing the watcher on kqueue (thanks @nhooyr and @glycerine)
- Tests: Fix missing verb on format string (thanks @rchiossi)
- Linux: Fix deadlock in Remove (thanks @aarondl)
- Linux: Watch.Add improvements (avoid race, fix consistency, reduce garbage) (thanks @twpayne)
- Docs: Moved FAQ into the README (thanks @vahe)
- Linux: Properly handle inotify's IN\_Q\_OVERFLOW event (thanks @zeldovich)
- Docs: replace references to OS X with macOS

## v1.4.2 / 2016-10-10

- Linux: use InotifyInit1 with IN\_CLOEXEC to stop leaking a file descriptor to a child process when using fork/exec [#178](#) (thanks @pattyshack)

## v1.4.1 / 2016-10-04

- Fix flaky inotify stress test on Linux [#177](#) (thanks @pattyshack)

## v1.4.0 / 2016-10-01

- add a String() method to Event.Op [#165](#) (thanks @oozie)

## v1.3.1 / 2016-06-28

- Windows: fix for double backslash when watching the root of a drive [#151](#) (thanks @brunoqc)

## v1.3.0 / 2016-04-19

- Support linux/arm64 by [patching](#) x/sys/unix and switching to it from syscall (thanks @suihkulokki) [#135](#)

## v1.2.10 / 2016-03-02

- Fix golint errors in windows.go [#121](#) (thanks @tiffanyfj)

## v1.2.9 / 2016-01-13

kqueue: Fix logic for CREATE after REMOVE [#111](#) (thanks @bep)

## v1.2.8 / 2015-12-17

- kqueue: fix race condition in Close [#105](#) (thanks @djuj for reporting the issue and @ppknap for writing a failing test)
- inotify: fix race in test
- enable race detection for continuous integration (Linux, Mac, Windows)

## v1.2.5 / 2015-10-17

- inotify: use epoll\_create1 for arm64 support (requires Linux 2.6.27 or later) [#100](#) (thanks @suihkulokki)
- inotify: fix path leaks [#73](#) (thanks @chamaken)
- kqueue: watch for rename events on subdirectories [#83](#) (thanks @guotie)
- kqueue: avoid infinite loops from symlinks cycles [#101](#) (thanks @illicitonion)

## **v1.2.1 / 2015-10-14**

- kqueue: don't watch named pipes [#98](#) (thanks @evanphx)

## **v1.2.0 / 2015-02-08**

- inotify: use epoll to wake up readEvents [#66](#) (thanks @PieterD)
- inotify: closing watcher should now always shut down goroutine [#63](#) (thanks @PieterD)
- kqueue: close kqueue after removing watches, fixes [#59](#)

## **v1.1.1 / 2015-02-05**

- inotify: Retry read on EINTR [#61](#) (thanks @PieterD)

## **v1.1.0 / 2014-12-12**

- kqueue: rework internals [#43](#)
  - add low-level functions
  - only need to store flags on directories
  - less mutexes [#13](#)
  - done can be an unbuffered channel
  - remove calls to os.NewSyscallError
- More efficient string concatenation for Event.String() [#52](#) (thanks @mdlayher)
- kqueue: fix regression in rework causing subdirectories to be watched [#48](#)
- kqueue: cleanup internal watch before sending remove event [#51](#)

## **v1.0.4 / 2014-09-07**

- kqueue: add dragonfly to the build tags.
- Rename source code files, rearrange code so exported APIs are at the top.
- Add done channel to example code. [#37](#) (thanks @chenyukang)

## **v1.0.3 / 2014-08-19**

- [Fix] Windows MOVED\_TO now translates to Create like on BSD and Linux. [#36](#)

## **v1.0.2 / 2014-08-17**

- [Fix] Missing create events on macOS. [#14](#) (thanks @zhssso)
- [Fix] Make ./path and path equivalent. (thanks @zhssso)

## **v1.0.0 / 2014-08-15**

- [API] Remove AddWatch on Windows, use Add.
- Improve documentation for exported identifiers. [#30](#)
- Minor updates based on feedback from golint.

## **dev / 2014-07-09**

- Moved to [github.com/fsnotify/fsnotify](https://github.com/fsnotify/fsnotify).
- Use os.NewSyscallError instead of returning errno (thanks @hariharan-uno)

## **dev / 2014-07-04**

- kqueue: fix incorrect mutex used in Close()
- Update example to demonstrate usage of Op.

## dev / 2014-06-28

- [API] Don't set the Write Op for attribute notifications [#4](#)
- Fix for String() method on Event (thanks Alex Brainman)
- Don't build on Plan 9 or Solaris (thanks @4ad)

## dev / 2014-06-21

- Events channel of type Event rather than \*Event.
- [internal] use syscall constants directly for inotify and kqueue.
- [internal] kqueue: rename events to kevents and fileEvent to event.

## dev / 2014-06-19

- Go 1.3+ required on Windows (uses syscall.ERROR\_MORE\_DATA internally).
- [internal] remove cookie from Event struct (unused).
- [internal] Event struct has the same definition across every OS.
- [internal] remove internal watch and removeWatch methods.

## dev / 2014-06-12

- [API] Renamed Watch() to Add() and RemoveWatch() to Remove().
- [API] Pluralized channel names: Events and Errors.
- [API] Renamed FileEvent struct to Event.
- [API] Op constants replace methods like IsCreate().

## dev / 2014-06-12

- Fix data race on kevent buffer (thanks @tilaks) [#98](#)

## dev / 2014-05-23

- [API] Remove current implementation of WatchFlags.
  - current implementation doesn't take advantage of OS for efficiency
  - provides little benefit over filtering events as they are received, but has extra bookkeeping and mutexes
  - no tests for the current implementation
  - not fully implemented on Windows [#93](#)

## v0.9.3 / 2014-12-31

- kqueue: cleanup internal watch before sending remove event [#51](#)

## v0.9.2 / 2014-08-17

- [Backport] Fix missing create events on macOS. [#14](#) (thanks @zhssso)

## v0.9.1 / 2014-06-12

- Fix data race on kevent buffer (thanks @tilaks) [#98](#)

## v0.9.0 / 2014-01-17

- `IsAttrib()` for events that only concern a file's metadata [#79](#) (thanks @abustany)
- [Fix] kqueue: fix deadlock [#77](#) (thanks @cespare)
- [NOTICE] Development has moved to `code.google.com/p/go.exp/fsnotify` in preparation for inclusion in the Go standard library.

## v0.8.12 / 2013-11-13

- [API] Remove `FD_SET` and friends from Linux adapter

## v0.8.11 / 2013-11-02

- [Doc] Add Changelog [#72](#) (thanks @nathany)
- [Doc] Spotlight and double modify events on macOS [#62](#) (reported by @paulhammond)

## v0.8.10 / 2013-10-19

- [Fix] kqueue: remove file watches when parent directory is removed [#71](#) (reported by @mdwhatcott)
- [Fix] kqueue: race between `Close` and `readEvents` [#70](#) (reported by @bernerdschaefer)
- [Doc] specify OS-specific limits in README (thanks @debrando)

## v0.8.9 / 2013-09-08

- [Doc] Contributing (thanks @nathany)
- [Doc] update package path in example code [#63](#) (thanks @paulhammond)
- [Doc] GoCI badge in README (Linux only) [#60](#)
- [Doc] Cross-platform testing with Vagrant [#59](#) (thanks @nathany)

## v0.8.8 / 2013-06-17

- [Fix] Windows: handle `ERROR_MORE_DATA` on Windows [#49](#) (thanks @jbowtie)

## v0.8.7 / 2013-06-03

- [API] Make syscall flags internal
- [Fix] inotify: ignore event changes
- [Fix] race in symlink test [#45](#) (reported by @srid)
- [Fix] tests on Windows
- lower case error messages

## v0.8.6 / 2013-05-23

- kqueue: Use `EVT_ONLY` flag on Darwin
- [Doc] Update README with full example

## v0.8.5 / 2013-05-09

- [Fix] inotify: allow monitoring of "broken" symlinks (thanks @tsg)

## v0.8.4 / 2013-04-07

- [Fix] kqueue: watch all file events [#40](#) (thanks @ChrisBuchholz)

### **v0.8.3 / 2013-03-13**

- [Fix] inotify/kqueue memory leak [#36](#) (reported by @nbkolchin)
- [Fix] kqueue: use fsnFlags for watching a directory [#33](#) (reported by @nbkolchin)

### **v0.8.2 / 2013-02-07**

- [Doc] add Authors
- [Fix] fix data races for map access [#29](#) (thanks @fsouza)

### **v0.8.1 / 2013-01-09**

- [Fix] Windows path separators
- [Doc] BSD License

### **v0.8.0 / 2012-11-09**

- kqueue: directory watching improvements (thanks @vmirage)
- inotify: add `IN_MOVED_TO` [#25](#) (requested by @cpisto)
- [Fix] kqueue: deleting watched directory [#24](#) (reported by @jakerr)

### **v0.7.4 / 2012-10-09**

- [Fix] inotify: fixes from <https://codereview.appspot.com/5418045/> (ugorji)
- [Fix] kqueue: preserve watch flags when watching for delete [#21](#) (reported by @robfig)
- [Fix] kqueue: watch the directory even if it isn't a new watch (thanks @robfig)
- [Fix] kqueue: modify after recreation of file

### **v0.7.3 / 2012-09-27**

- [Fix] kqueue: watch with an existing folder inside the watched folder (thanks @vmirage)
- [Fix] kqueue: no longer get duplicate CREATE events

### **v0.7.2 / 2012-09-01**

- kqueue: events for created directories

### **v0.7.1 / 2012-07-14**

- [Fix] for renaming files

### **v0.7.0 / 2012-07-02**

- [Feature] FSNotify flags
- [Fix] inotify: Added file name back to event path

### **v0.6.0 / 2012-06-06**

- kqueue: watch files after directory created (thanks @tmc)

### **v0.5.1 / 2012-05-22**

- [Fix] inotify: remove all watches before Close()

### **v0.5.0 / 2012-05-03**

- [API] kqueue: return errors during watch instead of sending over channel
- kqueue: match symlink behavior on Linux
- inotify: add `DELETE_SELF` (requested by @taralx)
- [Fix] kqueue: handle EINTR (reported by @robfig)
- [Doc] Godoc example [#1] (thanks @davecheney)

## **v0.4.0 / 2012-03-30**

- Go 1 released: build with go tool
- [Feature] Windows support using winfsnotify
- Windows does not have attribute change notifications
- Roll attribute notifications into IsModify

## **v0.3.0 / 2012-02-19**

- kqueue: add files when watch directory

## **v0.2.0 / 2011-12-30**

- update to latest Go weekly code

## **v0.1.0 / 2011-10-19**

- kqueue: add watch on file creation to match inotify
- kqueue: create file event
- inotify: ignore `IN_IGNORED` events
- event String()
- linux: common FileEvent functions
- initial commit