

These are benchmarks collected from the community used to measure the effects of changes to the Go core (compiler, runtime, garbage collector, and libraries). They should have the following properties:

- they matter; someone cares, perhaps in a dollars-and-cents way, that they run well
- they are go-gettable and don't require customized steps for building the benchmark
- they run under `go test -bench ...`
- they run relatively quickly, ideally a single "run" takes less than a second (there should perhaps be a separate set of longer-running benchmarks)
- their timings are not gratuitously noisy
- they run cleanly in a restricted environment, such as a Docker or rkt container
- they're not gratuitously redundant with other benchmarks already in the list; we don't need ten microbenchmarks of Go transcendental functions

These benchmarks change over time, and that is okay. Their intended use is for performance testing of proposed changes; is the geometric mean better, were any benchmarks made substantially worse?

Information for each benchmark includes (or should include):

- a short name for the benchmark
- the path to `go get` the benchmark
- a regexp for the benchmark suite excluding individual benchmarks that might be noisy, long-running, or redundant
- (ideally) a contact person for questions about the benchmarks

short name	notes	go get path	
ajstarks_deck_generate		github.com/ajstarks/deck/generate	Benchmark (Po...
benhoyt_goawk		github.com/benhoyt/goawk/interp	BenchmarkR
bindata		github.com/kevinburke/go-bindata	Benchmark
capnproto2		zombiezen.com/go/capnproto2/	Benchmark (Te...
cespare_mph		github.com/cespare/mpb	BenchmarkBui...
cespare_xxhash		github.com/cespare/xxhash	BenchmarkHas...
ericlagergren_decimal		github.com/ericlagergren/decimal/benchmarks	BenchmarkPi_c...
ethereum_bitutil		github.com/ethereum/go-ethereum/common/bitutil	Benchmark (Bas...
ethereum_core		github.com/ethereum/go-ethereum/core	BenchmarkCha...
ethereum_corevm		github.com/ethereum/go-ethereum/core/vm	BenchmarkOpD...
ethereum_ecies		github.com/ethereum/go-ethereum/crypto/ecies	BenchmarkGen...
ethereum_ethash		github.com/ethereum/go-ethereum/consensus/ethash	BenchmarkHas...
ethereum_sha3		github.com/ethereum/go-ethereum/crypto/sha3	BenchmarkSha...
ethereum_storage		github.com/ethereum/go-ethereum/swarm/storage	BenchmarkJoi...

ethereum_trie		github.com/ethereum/go-ethereum/trie	Benchmark
gonum_blas_native		gonum.org/v1/gonum/blas/gonum	Benchmark (Das
gonum_community		gonum.org/v1/gonum/graph/community/	BenchmarkLouv
gonum_lapack_native		gonum.org/v1/gonum/lapack/gonum	BenchmarkDgee
gonum_mat		gonum.org/v1/gonum/mat	Benchmark (Mu
gonum_path		gonum.org/v1/gonum/graph/path/	Benchmark (AS
gonum_topo		gonum.org/v1/gonum/graph/topo/	Benchmark (Ta
gonum_traverse		gonum.org/v1/gonum/graph/traverse/	BenchmarkWall
gtank_blake2s		github.com/gtank/blake2s	BenchmarkHas
gtank_ed25519		github.com/gtank/ed25519	Benchmark (Is
hugo_helpers		github.com/gohugoio/hugo/helpers	Benchmark (St
hugo_hugolib		github.com/gohugoio/hugo/hugolib	BenchmarkPar
hugo_hugolib_sitebuilding		github.com/gohugoio/hugo/hugolib	BenchmarkSite 12
k8s_api		k8s.io/kubernetes/pkg/api/testing	BenchmarkEnc
k8s_schedulercache		k8s.io/kubernetes/pkg/scheduler/cache	BenchmarkList
minio		github.com/minio/minio/cmd	BenchmarkGet
nelsam_gxui_interval		github.com/nelsam/gxui/interval	Benchmark
pilosa_bitmaps	benchmarks in roaring/ subdirectory	github.com/pilosa/pilosa	BenchmarkBitr
semver		github.com/Masterminds/semver	BenchmarkVal
spexs2		github.com/egonelbre/spexs2/_benchmark/	BenchmarkRun
uber_zap		go.uber.org/zap/benchmarks	BenchmarkAdd
uuid		github.com/satori/go.uuid/	Benchmark (Ne

There is a [benchmark runner](#) that automates downloading, building, and running these benchmarks under various (user-defined) configurations. Benchmarking noise on Linux can be somewhat reduced with [perflock](#).

A few have been proposed but have so far failed to make the cut (for fetch, build, or noise problems):

short name	notes	go get path	benchmark regexp	cont
eolian_dsp		buddin.us/eolian/dsp	Benchmark	
ethereum_whisperv5		github.com/ethereum/go- ethereum/whisper/whisperv5	Benchmark	

kanzi		github.com/flanglet/kanzi/go/src/kanzi/benchmark	Benchmark	
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