$ geth --help

NAME:

geth - the go-ethereum command line interface

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USAGE:

geth [options] command [command options] [arguments...]

VERSION:

1.9.6-stable

COMMANDS:

account Manage accounts

attach Start an interactive JavaScript environment (connect to node)

console Start an interactive JavaScript environment

copydb Create a local chain from a target chaindata folder

dump Dump a specific block from storage

dumpconfig Show configuration values

export Export blockchain into file

export-preimages Export the preimage database into an RLP stream

import Import a blockchain file

import-preimages Import the preimage database from an RLP stream

init Bootstrap and initialize a new genesis block

inspect Inspect the storage size for each type of data in the database

js Execute the specified JavaScript files

license Display license information

makecache Generate ethash verification cache (for testing)

makedag Generate ethash mining DAG (for testing)

removedb Remove blockchain and state databases

retesteth Launches geth in retesteth mode

version Print version numbers

wallet Manage Ethereum presale wallets

help, h Shows a list of commands or help for one command

ETHEREUM OPTIONS:

--config value TOML configuration file

--datadir value Data directory for the databases and keystore (default: "~/Library/Ethereum")

--datadir.ancient value Data directory for ancient chain segments (default = inside chaindata)

--keystore value Directory for the keystore (default = inside the datadir)

--nousb Disables monitoring for and managing USB hardware wallets

--pcscdpath value Path to the smartcard daemon (pcscd) socket file

--networkid value Network identifier (integer, 1=Frontier, 2=Morden (disused), 3=Ropsten, 4=Rinkeby) (default: 1)

--testnet Ropsten network: pre-configured proof-of-work test network

--rinkeby Rinkeby network: pre-configured proof-of-authority test network

--goerli Görli network: pre-configured proof-of-authority test network

--syncmode value Blockchain sync mode ("fast", "full", or "light") (default: fast)

--exitwhensynced Exits after block synchronisation completes

--gcmode value Blockchain garbage collection mode ("full", "archive") (default: "full")

--ethstats value Reporting URL of a ethstats service (nodename:secret@host:port)

--identity value Custom node name

--lightkdf Reduce key-derivation RAM & CPU usage at some expense of KDF strength

--whitelist value Comma separated block number-to-hash mappings to enforce (<number>=<hash>)

LIGHT CLIENT OPTIONS:

--light.serve value Maximum percentage of time allowed for serving LES requests (multi-threaded processing allows values over 100) (default: 0)

--light.ingress value Incoming bandwidth limit for serving light clients (kilobytes/sec, 0 = unlimited) (default: 0)

--light.egress value Outgoing bandwidth limit for serving light clients (kilobytes/sec, 0 = unlimited) (default: 0)

--light.maxpeers value Maximum number of light clients to serve, or light servers to attach to (default: 100)

--ulc.servers value List of trusted ultra-light servers

--ulc.fraction value Minimum % of trusted ultra-light servers required to announce a new head (default: 75)

--ulc.onlyannounce Ultra light server sends announcements only

DEVELOPER CHAIN OPTIONS:

--dev Ephemeral proof-of-authority network with a pre-funded developer account, mining enabled

--dev.period value Block period to use in developer mode (0 = mine only if transaction pending) (default: 0)

ETHASH OPTIONS:

--ethash.cachedir value Directory to store the ethash verification caches (default = inside the datadir)

--ethash.cachesinmem value Number of recent ethash caches to keep in memory (16MB each) (default: 2)

--ethash.cachesondisk value Number of recent ethash caches to keep on disk (16MB each) (default: 3)

--ethash.dagdir value Directory to store the ethash mining DAGs (default: "~/Library/Ethash")

--ethash.dagsinmem value Number of recent ethash mining DAGs to keep in memory (1+GB each) (default: 1)

--ethash.dagsondisk value Number of recent ethash mining DAGs to keep on disk (1+GB each) (default: 2)

TRANSACTION POOL OPTIONS:

--txpool.locals value Comma separated accounts to treat as locals (no flush, priority inclusion)

--txpool.nolocals Disables price exemptions for locally submitted transactions

--txpool.journal value Disk journal for local transaction to survive node restarts (default: "transactions.rlp")

--txpool.rejournal value Time interval to regenerate the local transaction journal (default: 1h0m0s)

--txpool.pricelimit value Minimum gas price limit to enforce for acceptance into the pool (default: 1)

--txpool.pricebump value Price bump percentage to replace an already existing transaction (default: 10)

--txpool.accountslots value Minimum number of executable transaction slots guaranteed per account (default: 16)

--txpool.globalslots value Maximum number of executable transaction slots for all accounts (default: 4096)

--txpool.accountqueue value Maximum number of non-executable transaction slots permitted per account (default: 64)

--txpool.globalqueue value Maximum number of non-executable transaction slots for all accounts (default: 1024)

--txpool.lifetime value Maximum amount of time non-executable transaction are queued (default: 3h0m0s)

PERFORMANCE TUNING OPTIONS:

--cache value Megabytes of memory allocated to internal caching (default = 4096 mainnet full node, 128 light mode) (default: 1024)

--cache.database value Percentage of cache memory allowance to use for database io (default: 50)

--cache.trie value Percentage of cache memory allowance to use for trie caching (default = 25% full mode, 50% archive mode) (default: 25)

--cache.gc value Percentage of cache memory allowance to use for trie pruning (default = 25% full mode, 0% archive mode) (default: 25)

--cache.noprefetch Disable heuristic state prefetch during block import (less CPU and disk IO, more time waiting for data)

ACCOUNT OPTIONS:

--unlock value Comma separated list of accounts to unlock

--password value Password file to use for non-interactive password input

--signer value External signer (url or path to ipc file)

--allow-insecure-unlock Allow insecure account unlocking when account-related RPCs are exposed by http

API AND CONSOLE OPTIONS:

--ipcdisable Disable the IPC-RPC server

--ipcpath value Filename for IPC socket/pipe within the datadir (explicit paths escape it)

--rpc Enable the HTTP-RPC server

--rpcaddr value HTTP-RPC server listening interface (default: "localhost")

--rpcport value HTTP-RPC server listening port (default: 8545)

--rpcapi value API's offered over the HTTP-RPC interface

--rpc.gascap value Sets a cap on gas that can be used in eth\_call/estimateGas (default: 0)

--rpccorsdomain value Comma separated list of domains from which to accept cross origin requests (browser enforced)

--rpcvhosts value Comma separated list of virtual hostnames from which to accept requests (server enforced). Accepts '\*' wildcard. (default: "localhost")

--ws Enable the WS-RPC server

--wsaddr value WS-RPC server listening interface (default: "localhost")

--wsport value WS-RPC server listening port (default: 8546)

--wsapi value API's offered over the WS-RPC interface

--wsorigins value Origins from which to accept websockets requests

--graphql Enable the GraphQL server

--graphql.addr value GraphQL server listening interface (default: "localhost")

--graphql.port value GraphQL server listening port (default: 8547)

--graphql.corsdomain value Comma separated list of domains from which to accept cross origin requests (browser enforced)

--graphql.vhosts value Comma separated list of virtual hostnames from which to accept requests (server enforced). Accepts '\*' wildcard. (default: "localhost")

--jspath loadScript JavaScript root path for loadScript (default: ".")

--exec value Execute JavaScript statement

--preload value Comma separated list of JavaScript files to preload into the console

NETWORKING OPTIONS:

--bootnodes value Comma separated enode URLs for P2P discovery bootstrap (set v4+v5 instead for light servers)

--bootnodesv4 value Comma separated enode URLs for P2P v4 discovery bootstrap (light server, full nodes)

--bootnodesv5 value Comma separated enode URLs for P2P v5 discovery bootstrap (light server, light nodes)

--port value Network listening port (default: 30303)

--maxpeers value Maximum number of network peers (network disabled if set to 0) (default: 50)

--maxpendpeers value Maximum number of pending connection attempts (defaults used if set to 0) (default: 0)

--nat value NAT port mapping mechanism (any|none|upnp|pmp|extip:<IP>) (default: "any")

--nodiscover Disables the peer discovery mechanism (manual peer addition)

--v5disc Enables the experimental RLPx V5 (Topic Discovery) mechanism

--netrestrict value Restricts network communication to the given IP networks (CIDR masks)

--nodekey value P2P node key file

--nodekeyhex value P2P node key as hex (for testing)

MINER OPTIONS:

--mine Enable mining

--miner.threads value Number of CPU threads to use for mining (default: 0)

--miner.notify value Comma separated HTTP URL list to notify of new work packages

--miner.gasprice value Minimum gas price for mining a transaction (default: 1000000000)

--miner.gastarget value Target gas floor for mined blocks (default: 8000000)

--miner.gaslimit value Target gas ceiling for mined blocks (default: 8000000)

--miner.etherbase value Public address for block mining rewards (default = first account) (default: "0")

--miner.extradata value Block extra data set by the miner (default = client version)

--miner.recommit value Time interval to recreate the block being mined (default: 3s)

--miner.noverify Disable remote sealing verification

GAS PRICE ORACLE OPTIONS:

--gpoblocks value Number of recent blocks to check for gas prices (default: 20)

--gpopercentile value Suggested gas price is the given percentile of a set of recent transaction gas prices (default: 60)

VIRTUAL MACHINE OPTIONS:

--vmdebug Record information useful for VM and contract debugging

--vm.evm value External EVM configuration (default = built-in interpreter)

--vm.ewasm value External ewasm configuration (default = built-in interpreter)

LOGGING AND DEBUGGING OPTIONS:

--fakepow Disables proof-of-work verification

--nocompaction Disables db compaction after import

--verbosity value Logging verbosity: 0=silent, 1=error, 2=warn, 3=info, 4=debug, 5=detail (default: 3)

--vmodule value Per-module verbosity: comma-separated list of <pattern>=<level> (e.g. eth/\*=5,p2p=4)

--backtrace value Request a stack trace at a specific logging statement (e.g. "block.go:271")

--debug Prepends log messages with call-site location (file and line number)

--pprof Enable the pprof HTTP server

--pprofaddr value pprof HTTP server listening interface (default: "127.0.0.1")

--pprofport value pprof HTTP server listening port (default: 6060)

--memprofilerate value Turn on memory profiling with the given rate (default: 524288)

--blockprofilerate value Turn on block profiling with the given rate (default: 0)

--cpuprofile value Write CPU profile to the given file

--trace value Write execution trace to the given file

METRICS AND STATS OPTIONS:

--metrics Enable metrics collection and reporting

--metrics.expensive Enable expensive metrics collection and reporting

--metrics.influxdb Enable metrics export/push to an external InfluxDB database

--metrics.influxdb.endpoint value InfluxDB API endpoint to report metrics to (default: "http://localhost:8086")

--metrics.influxdb.database value InfluxDB database name to push reported metrics to (default: "geth")

--metrics.influxdb.username value Username to authorize access to the database (default: "test")

--metrics.influxdb.password value Password to authorize access to the database (default: "test")

--metrics.influxdb.tags value Comma-separated InfluxDB tags (key/values) attached to all measurements (default: "host=localhost")

WHISPER (EXPERIMENTAL) OPTIONS:

--shh Enable Whisper

--shh.maxmessagesize value Max message size accepted (default: 1048576)

--shh.pow value Minimum POW accepted (default: 0.2)

--shh.restrict-light Restrict connection between two whisper light clients

DEPRECATED OPTIONS:

--lightserv value Maximum percentage of time allowed for serving LES requests (deprecated, use --light.serve) (default: 0)

--lightpeers value Maximum number of light clients to serve, or light servers to attach to (deprecated, use --light.maxpeers) (default: 100)

--minerthreads value Number of CPU threads to use for mining (deprecated, use --miner.threads) (default: 0)

--targetgaslimit value Target gas floor for mined blocks (deprecated, use --miner.gastarget) (default: 8000000)

--gasprice value Minimum gas price for mining a transaction (deprecated, use --miner.gasprice) (default: 1000000000)

--etherbase value Public address for block mining rewards (default = first account, deprecated, use --miner.etherbase) (default: "0")

--extradata value Block extra data set by the miner (default = client version, deprecated, use --miner.extradata)

MISC OPTIONS:

--override.istanbul value Manually specify Istanbul fork-block, overriding the bundled setting (default: 0)

--help, -h show help

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