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Command line options

Network 🔗

Short option	Long option	Description	Version
-o	--url=URL	URL of mining server	All
-a	--algo=ALGO	mining algorithm	All
	--coin=COIN	specify coin instead of algorithm	3.2.0+
-u	--user=USERNAME	username for mining server	All
-p	--pass=PASSWORD	password for mining server	All
-O	--userpass=U:P	username:password pair for mining server	All
-x	--proxy=HOST:PORT	connect through a SOCKS5 proxy	5.7.0+
-k	--keepalive	send keepalive packet for prevent timeout (needs pool support)	All
	--nicehash	enable nicehash support	All
	--rig-id=ID	rig identifier for pool-side statistics (needs pool support)	2.6.1+
	--tls	enable SSL/TLS support (needs pool support)	2.8.0+
	--tls-fingerprint=HEX	pool TLS certificate fingerprint for strict certificate pinning	2.8.0+
	--dns-ipv6	prefer IPv6 records from DNS responses	6.11.0+
	--dns-ttl=N	N seconds (default: 30) TTL for internal DNS cache	6.11.0+
	--daemon	use daemon RPC instead of pool for solo mining	3.0.0+

	--daemon-zmq-port=N	daemon's 🎮 zmq-pub port number (only use it if daemon has it enabled)	6.14.0+
	--daemon-poll-interval=N	daemon poll interval in milliseconds (default: 1000)	3.0.0+
	--daemon-job-timeout=N	daemon job timeout in milliseconds (default: 15000)	6.19.0+
	--self-select=URL	self-select block templates from URL	4.4.0+
	--submit-to-origin	also submit solution back to self-select URL	6.9.0+
-r	--retries=N	number of times to retry before switch to backup server (default: 5)	All
-R	--retry-pause=N	time to pause between retries (default: 5)	All
	--user-agent	set custom user-agent string for pool	2.3.0+
	--donate-level=N	donate level, default 1% (1 minute in 100 minutes)	All
	--donate-over-proxy=N	control donate over xmrig-proxy feature	3.0.0+

CPU backend 🔗

Short option	Long option	Description	Version
	--no-cpu	disable CPU mining backend	3.0.0+
-t	--threads=N	number of CPU threads. Proper CPU affinity required for some optimizations.	All
	--cpu-affinity=N	set process affinity to CPU core(s), mask 0x3 for cores 0 and 1	All
-v	--av=N	algorithm variation, 0 auto select	All
	--cpu-priority=N	set process priority (0 idle, 2 normal to 5 highest)	2.3.0+
	--cpu-max-threads-hint=N	maximum CPU threads count (in percentage) hint for autoconfig	4.2.0+

	`--cpu-memory-pool=N`	number of 2 MB pages for persistent memory pool, -1 (auto), 0 (disable)	4.3.0+
	`--cpu-no-yield`	prefer maximum hashrate rather than system response/stability	5.1.1+
	`--no-huge-pages`	disable huge pages support	2.3.0+
	`--hugepage-size=N`	custom hugepage size in kB (Linux only)	2.8.1+
	`--huge-pages-jit`	enable huge pages support for RandomX JIT code	All
	`--asm=ASM`	ASM optimizations, possible values: auto, none, intel, ryzen, bulldozer	2.8.0+
	`--argon2-impl=IMPL`	argon2 implementation: x86_64, SSE2, SSSE3, XOP, AVX2, AVX-512F	6.3.1+
	`--randomx-init=N`	thread count to initialize RandomX dataset	3.0.0+
	`--randomx-no-numa`	disable NUMA support for RandomX	3.0.0+
	`--randomx-mode=MODE`	RandomX mode: auto, fast, light	5.1.0+
	`--randomx-1gb-pages`	use 1GB hugepages for RandomX dataset (Linux only)	5.2.0+
	`--randomx-wrmsr=N`	write custom value(s) to MSR registers or disable MSR mod (-1)	5.2.0+
	`--randomx-no-rdmsr`	disable reverting initial MSR values on exit	5.5.0+
	`--randomx-cache-qos`	enable Cache QoS	6.3.1+

OpenCL backend 🔗

Short option	Long option	Description	Version
	`--opencl`	enable OpenCL mining backend	5.0.0+
	`--opencl-devices=N`	comma separated list of OpenCL devices to use	5.0.0+
	`--opencl-platform=N`	OpenCL platform index or name	5.0.0+

	--opencl-loader=PATH	path to OpenCL-ICD-Loader (OpenCL.dll or libOpenCL.so)	5.0.0+
	--opencl-no-cache	disable OpenCL cache	5.0.0+
	--print-platforms	print available OpenCL platforms and exit	5.0.0+

CUDA backend 🔗

Short option	Long option	Description	Version
	--cuda	enable CUDA mining backend	5.0.0+
	--cuda-loader=PATH	path to CUDA plugin (xmrig-cuda.dll or libxmrig-cuda.so)	5.0.0+
	--cuda-devices=N	comma separated list of CUDA devices to use	5.0.0+
	--cuda-bfactor-hint=N	bfactor hint for autoconfig (0-12)	5.0.1+
	--cuda-bsleep-hint	bsleep hint for autoconfig	5.0.1+
	--no-nvml	disable NVML (NVIDIA Management Library) support	5.0.0+

API 🔗

Short option	Long option	Description	Version
	--api-worker-id=ID	custom worker-id for API	2.4.0+
	--api-id=ID	custom instance ID for API	2.4.0+
	--http-host=HOST	bind host for HTTP API (default: 127.0.0.1)	5.0.0+
	--http-port=N	bind port for HTTP API	5.0.0+
	--http-access-token=T	access token for HTTP API	5.0.0+
	--http-no-restricted	enable full remote access to HTTP API (only if access token set)	5.0.0+

Logging 🔗

Short option	Long option	Description	Version

-S	--syslog	use system log for output messages	All
-l	--log-file=FILE	log all output to a file	All
	--print-time=N	print hashrate report every N seconds	All
	--health-print-time=N	print health report every N seconds	5.0.0+
	--no-color	disable colored output	All
	--verbose	verbose output	5.4.0+

Misc 🔗

Short option	Long option	Description	Version
-c	--config=FILE	load a JSON-format configuration file	All
-B	--background	run the miner in the background	All
-V	--version	output version information and exit	All
-h	--help	display this help and exit	All
	--dry-run	test configuration and exit	All
	--export-topology	export hwloc topology to a XML file and exit	3.0.0+
	--title	set custom console window title	6.0.1+
	--no-title	disable setting console window title	6.0.1+
	--pause-on-battery	pause mine on battery power	6.3.1+
	--pause-on-active=N	pause mine when the user is active (resume after N seconds of last activity)	6.9.0+
	--stress	run continuous stress test to check system stability	6.4.0+
	--bench=N	run benchmark, N can be between 1M and 10M	6.4.0+
	--submit	perform an online benchmark and submit result for sharing	6.5.0+
	--verify=ID	verify submitted benchmark by ID	6.5.0+

`--seed=SEED`	custom RandomX seed for benchmark	6.5.0+
`--hash=HASH`	compare benchmark result with specified hash	6.5.0+
`--no-dmi`	disable DMI/SMBIOS reader	6.8.0+