











Command line options

XMRig / Command line options

Network 🔗

Short option	Long option	Description	Version	
-0	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	
-0	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 69

Short option	Long option	Description	Version
-S	syslog	use system log for output messages	All

-1	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+