

# Mining software

There are many different types of Bitcoin mining software available. These tables should help you find what will work best for your mining.

information														
Info	BFG	BitMinter	BTCMiner	cgminer	Diablo	EasyMiner	gMiner	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
language	C	Scala	Java	C	Java		Python	C++	Python	Tcl	Twisted	Python	C++	Scala
license	GPL-3	All rights reserved	GPL-3	GPL-3	GPL-3		PD	Windows Store	GPL-2+	GPL-3	MIT	PD	GPL-3	GPL-3
website	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>		<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>
forum	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>		<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	<a href="#">link</a>	
related pool	<a href="#">Eligius</a>	<a href="#">BitMinter</a>		<a href="#">Ckpool</a>										
operating systems														
OS	BFG	BitMinter	BTCMiner	cgminer	Diablo	EasyMiner	gMiner	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
Arch	pkg			src,ARM bin				No						Java
Debian	pkg	Java	jar	pkg	jar	No	py	No	py	?	py	py	src	Java
Fedora	pkg	Java	jar	bin	jar	No	py	No	py	?	py	py	src	Java
Gentoo	pkg	Java	jar	pkg	jar	No	py	No	py	?	py	py	src	Java
Mac OS X	hmbwr	Java	jar	src	jar	No	py	No	py	?	py	py	src	Java
OpenWrt	pkg			bin		No		No						
Raspbian	pkg	Java	jar	bin	No	No	py	No	py		py	py		Java
Ubuntu	pkg	Java	jar	pkg	jar	No	py	No	py	?	py	py	src	Java
Windows (32-bit)	zip	Java	jar	zip	jar	Yes	Yes	Yes			Yes	Yes	Yes	Java
Windows (64-bit) <sup>[1]</sup>	zip	Java	jar	W32 <sup>[1]</sup>	jar			Yes						Java
Windows RT	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No
mining devices (virtual)														
Virtual device	BFG	BitMinter	BTCMiner	cgminer	Diablo	EasyMiner	gMiner	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
getwork server	3.2.0	No	No	No	No	No	No	No	No	No	No	No		Yes
stratum server	3.3.0	No	No	No	No	No	No	No	No	No	No	No		No
mining devices (asic)														
Device	BFG	BitMinter	BTCMiner	cgminer	Diablo	EasyMiner	gMiner	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
AntMiner S1	5.4.0	No	No	4.1.0	No	No	No	No	No	No	No	No	No	No
AntMiner S2	5.4.0	No	No	4.3.5	No	No	No	No	No	No	No	No	No	No
AntMiner S3/S3+	5.4.0	No	No	Yes	No	No	No	No	No	No	No	No		No
AntMiner S4	5.4.0	No	No	Yes	No	No	No	No	No	No	No	No		No
AntMiner S5	5.4.0	No	No	Patch	No	No	No	No	No	No	No	No		No
AntMiner S5+		No	No	Patch	No	No	No	No	No	No	No	No		No
AntMiner S7		No	No	Patch	No	No	No	No	No	No	No	No		No
AntMiner U1/U2	3.10.0	Yes	No	3.12.0	No	No	No	No	No	No	No	No	No	0.2
AntMiner U3	5.2.0		No	Yes	No	No	No	No	No	No	No	No	No	0.2
Avalon	3.0.0	No	No	2.10.4	No	No	No	No	No	No	No	No	No	No
Avalon Gen2/Gen3	3.6.0	No	No	Yes	No	No	No	No	No	No	No	No	No	No
Avalon Nano	Yes	No	No	Yes	No	No	No	No	No	No	No	No	No	No
BFx2 Bitfury USB	4.0.0	No	No	4.1.0	No	No	No	No	No	No	No	No		No
Bi°Fury	3.7.0		No	3.8.2	No	No	No	No			No	No		No
BitBurner	No	No	No	3.3.2	No	No	No	No	No	No	No	No	No	No
BitForce SC 5 Gh/s	3.0.0	Yes	No	3.1.0	No		No	No		No	No	No	No	Yes
BitForce SC 25 Gh/s	3.1.1	Yes	No	3.3.1	No		No	No		No	No	No	No	Yes
BitForce SC 50 Gh/s	3.1.0	Yes	No	3.3.1	No		No	No		No	No	No	No	Yes
BitFury GPIO	3.3.0	No	No	3.8.0	No	No	No	No			No	No		No
Bitfury S.B.	3.3.0	No	No	3.11.0	No	No	No	No			No	No		No
BitMine A1	No	No	No	4.0.0	No	No	No	No	No	No	No	No	No	No
BlackArrow Prospero X1	5.0.0	No	No	Yes	No	No	No	No	No	No	No	No	No	No
BlackArrow Prospero X3		No	No	Yes	No	No	No	No	No	No	No	No	No	No
Block Erupter Blade	3.2.0	No	No	No	No	No	No	No	No	No	No	No	No	Yes
Block Erupter USB	2.6.4	Yes	No	2.6.4	No	No	No	No	No	No	No	No	No	0.2
CoinTerra	3.8.0	No	No	3.12.1	No	No	No	No	No	No	No	No	No	No
Compac	5.3.0	No	No	Patch	No	No	No	No	No	No	No	No	No	No
Drillbit	3.10.0	No	No	3.9.0	No	No	No	No	No	No	No	No	No	No
DualMiner	4.0.0	No	No	No	No	No	No	No	No	No	No	No	No	Yes

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HashBuster Alpha	4.0.0	No	No	Patch	No	No	No	No			No	No		No
HashBuster Micro	3.8.0	No	No	No	No	No	No	No			No	No		No
HashBuster Nano	3.5.0	No	No	No	No	No	No	No			No	No		No
HashFast	3.10.0	No	No	3.5.0	No	No	No	No			No	No		No
Hex*Fury	4.0.0	No	No	4.2.3	No	No	No	No			No	No		No
JingTian	4.4.0	No	No	Patch	No	No	No	No			No	No		No
Klondike	3.6.0	No	No	3.6.0	No	No	No	No						No
KnCMiner 28nm	3.4.0	No	No	3.7.0	No	No	No	No	No	No	No	No		No
KnCMiner Neptune	5.0.0	No	No	Patch	No	No	No	No	No	No	No	No		No
LittleFury	3.5.0	No	No	No	No	No	No	No			No	No		No
Metabank BitFury	3.3.0	No	No	No	No	No	No	No			No	No		No
Monarch PCI-e/Linux	4.3.0	No	No	No	No	No	No	No			No	No		No
Monarch PCI-e/Win	4.5.0	No	No	No	No	No	No	No			No	No		No
Monarch USB	4.3.0	No	No	Yes	No	No	No	No			No	No		No
NanoFury / IceFury	3.4.0		No	3.10.0	No	No	No	No			No	No		No
NanoFury NF2	4.0.0		No	4.3.1	No	No	No	No			No	No		No
NanoFury NF6	4.0.0		No	4.3.1	No	No	No	No			No	No		No
OneStringMiner	4.0.0	No	No	3.8.2	No	No	No	No	No	No	No	No	No	No
Red/BlueFury	3.3.0	Yes	No	3.5.0	No	No	No	No			No	No		No
Rockminer R-Box	4.2.0	No	No	4.3.5	No	No	No	No			No	No		No
Spondoolies SP10	4.7.0	No	No	4.2.3	No	No	No	No	No	No	No	No	No	No
Spondoolies SP30	4.10.0	No	No	Yes	No	No	No	No	No	No	No	No	No	No
T1/Tube	3.3.0	No	No	Yes	No	No	No	No	No	No	No	No	No	No
Twinfury	3.7.0		No	No	No	No	No	No			No	No		No
mining devices (fpga)														
Device	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
Avnet LX150T Devkit	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No
BitForce Single	2.2.0	1.2.0	No	2.2.0	No	Yes	No	No	Yes		No	git	Yes	No
BFL MiniRig	2.4.3	1.2.0	No	2.5.0	No	Yes	No	No	Yes		No	No		No
Cairnsmore1	2.6.4	No	No	2.6.4	No	No	No	No	Yes		No	No	No	No
Digilent Nexys 2 500K	No	No	No	No	No	No	No	No			No	No	No	No
Icarus	2.2.7	1.3.0	No	2.2.7	No	No	No	No	Yes		No	No	No	No
Lancelot	2.6.4	No	No	2.6.4	No	No	No	No	Yes		No	No	No	No
ModMiner	2.4.3	No	No	2.4.3	No	No	No	No	Yes		No	No	No	No
Terasic DE2-115	No	No	No	No	No	No	No	No		Yes	No	No	No	No
X5000	No	No	No	No	No	No	No	No	No		No	No	No	No
X6500	2.9.0	No	No	No	No	No	No	No	Yes		No	No	No	No
ZTEX 1.15b	No	No	Yes	No	No	No	No	No			No	No	No	No
ZTEX 1.15x	2.3.4	No	Yes	3.5.0	No	No	No	No	Yes		No	No	No	No
ZTEX 1.15y	2.4.1	No	Yes	3.5.0	No	No	No	No			No	No	No	No
mining devices (gpu)														
Device	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
OpenCL (Mesa AMD)	3.0.1		No	No		No		No	No	No				No
OpenCL (Mesa NV)			No	No		No		No	No	No				No
OpenCL (AMD APP)	Yes	Yes	No	3.7.2	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No
OpenCL (nvidia)	Yes	Yes	No	3.7.2		No		No	No	No				No
CUDA (nvidia)	No	No	No	No	No	No	No	No	No	No		No	Yes	No
DirectCompute	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No
mining devices (cpu)														
Device	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
Intel SHA256	No	No	No	No	No	No	No	No	No	No	No	No	No	No
SSE4 (x86_64)	Yes	No	No	2.x		No	No	No	No	No		No		No
SSE2 (x86_32)	Yes	No	No	2.x		No	No	Yes	No	No		No		No
SSE2 (x86_64)	Yes	No	No	2.x		No	No	Yes	No	No		No		No
Altivec (PPC)	Yes	No	No	2.x		No	No	No	No	No		No		No
VIA PadLock	Yes	No	No	2.x		No	No	No	No	No		No		No
Assembly (x86_32)	Yes	No	No	2.x		No	No	No	No	No		No		No

High-level CPU	Yes	No	No	2.x		No	No	Yes	No	No		No		No
NEON (ARM)	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No
miner protocols														
Protocol	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
getblocktemplate	2.8.0	No	No	2.10.5	No		No	No	No	No	No		Yes	No
Stratum	2.9.0	Yes	No	2.8.0	No	No	No	Yes	testing	No	No	Yes	Yes	Yes
getwork	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
BikPrep	No	No	No	No	No	No	No	No	No	No	No	No	No	No
UBBP	No	No	No	No	No	No	No	No	No	No	No	No	No	No
getwork extensions														
Extension	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
hostlist	No	No	No	No	No		Yes	Yes	No	No	No	Yes	Yes	No
longpoll	Yes	Yes	Yes	No	Yes		Yes	Yes	0.1	Yes <sup>[2]</sup>	No <sup>[3]</sup>	Yes <sup>[2]</sup>	Yes	No
midstate	Yes	Yes	Yes	No	No		Yes <sup>[2]</sup>	Yes	0.1	No	Yes <sup>[2]</sup>	Yes	Yes	Yes
noncerange	No	No	No	No	No			Yes	No	No	No	No	Yes	Yes
reject-reason	Yes	Yes	Yes	No	Yes		No	Yes	0.0	No	Yes	Patch	Yes	No
rollntime	Yes	Yes	No	No	Yes		Yes	Yes	0.1	No	No	Yes	No <sup>[3]</sup>	Yes
expire=N	Yes	Yes	No	No	Yes		Yes	Yes	0.1	No	No	No	No	No
submitold	Yes	Yes <sup>[2][4]</sup>	Yes	No	No		No	Yes <sup>[2][4]</sup>	0.0 <sup>[2][4]</sup>	No	No	No	No	No
switchto	No	No	No	No	Yes		Yes	Yes	No	No	No	No	Yes	No
getblocktemplate/BikPrep functionality														
Function	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
longpoll	Yes	n/a	n/a	Yes	n/a		n/a	n/a	n/a	n/a	n/a		Yes	n/a
noncerange	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
proposal	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
serverlist	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
getblocktemplate/BikPrep variations														
Variation	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
(fixed coinbase)	2.9.0	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
coinbase/append	2.9.0	n/a	n/a	2.8.7	n/a		n/a	n/a	n/a	n/a	n/a		Required	n/a
coinbase (set)	2.10.4 <sup>[5]</sup>	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
generation	2.9.0	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
(full submit)	2.9.0	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
share/coinbase	2.9.0	n/a	n/a	2.8.7	n/a		n/a	n/a	n/a	n/a	n/a			n/a
share/merkle	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
share/truncate	2.9.0	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a			n/a
time/increment	2.9.0	n/a	n/a		n/a		n/a	n/a	n/a	n/a	n/a			n/a
time/decrement	2.9.0	n/a	n/a		n/a		n/a	n/a	n/a	n/a	n/a			n/a
txns/add	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
txns/remove	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
prevblock	No	n/a	n/a	No	n/a		n/a	n/a	n/a	n/a	n/a		No	n/a
solo to bitcoind	Yes	n/a	n/a	Yes	n/a		n/a	n/a	n/a	n/a	n/a			n/a
Stratum functionality														
Function	BFG	BitMinter	BTCTMiner	cgminer	Diablo	EasyMiner	gMinor	GroupFabric	MPBM	OSFPGABM	Phoenix	poclbm	Ufasoft	ScalaMiner
resume	3.0.0	No	n/a	2.11.0	n/a	n/a	n/a	No		n/a	n/a	No	No	No
reconnect	2.9.0	Yes	n/a	2.8.2	n/a	n/a	n/a	Yes		n/a	n/a	Yes	No	No
add peers	No	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
set diff	2.9.0	Yes	n/a	2.8.0	n/a	n/a	n/a	Yes	testing	n/a	n/a	20121020	Yes	No
suggest target	3.2.0 <sup>[6]</sup>	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
suggest difficulty	5.4.0	No	n/a	Yes <sup>[7]</sup>	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
transparency	partial	No	n/a	No	n/a	n/a	n/a	No		n/a	n/a	No	No	No
get ver	2.9.0	Yes	n/a	2.8.2	n/a	n/a	n/a	Yes		n/a	n/a	Yes	No	No
show msg	3.0.0	Yes	n/a	2.11.1	n/a	n/a	n/a	No		n/a	n/a	No	No	No
get hashrate	No	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
get temp	No	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
roll ntime	3.1.4	Yes	n/a	No	n/a	n/a	n/a	No		n/a	n/a			Yes
extranonce	4.7.0	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	No
subscribe														
block unsafe	4.0.0	No	n/a	4.3.1	n/a	n/a	n/a	1.15.1.0	No	n/a	n/a	No	No	
reconnect														
unauth TLS	4.0.0	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	
mining goals	5.0.0	No	n/a	No	n/a	n/a	n/a	No	No	n/a	n/a	No	No	

- ↑ [1.0 1.1](#) Windows includes (usually installed by default) the [WoW64 subsystem](#) which enables running 32-bit Windows applications, with low performance impact.
- ↑ [2.0 2.1 2.2 2.3 2.4 2.5 2.6](#) Supported, but not advertised
- ↑ [3.0 3.1](#) Supported, but has bugs.
- ↑ [4.0 4.1 4.2](#) Not advertised, but generally doesn't discard shares.
- ↑ Older versions have serious bugs.
- ↑ Uses precise string target, implemented Aug 12, 2013 [commit 4a12eae](#)
- ↑ Uses difficulty integer, implemented Oct 20, 2014 [commit 4a83f2c](#) as per the [stratum designers suggested implementation](#) Feb 20, 2013

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