- hashcat
- Forums
- Wiki
- Tools

1740

1750

sha512(\$salt.utf16le(\$pass))

HMAC-SHA512 (key = \$pass)

Events

### **Example hashes**

If you get a "line length exception" error in hashcat, it is often because the hash mode that you have requested does not match the hash. To verify, you can test your commands against example hashes.

Unless otherwise noted, the password for all example hashes is **hashcat**.

<u>Gen</u>	ieneric hash types		
Hash-	Hash-Name	Example	
Mode			
0	MD5	8743b52063cd84097a65d1633f5c74f5	
10	md5(\$pass.\$salt)	01dfae6e5d4d90d9892622325959afbe:7050461	
20	md5(\$salt.\$pass)	Ofda58630310a6dd91a7d8f0a4ceda2:4225637426	
30	md5(utf16le(\$pass).\$salt)	b31d032cfdcf47a399990a71e43c5d2a:144816	
40	md5(\$salt.utf16le(\$pass))	d63d0e21fdc05f618d55ef306c54af82:13288442151473	
50	HMAC-MD5 (key = \$pass)	fc741db0a2968c39d9c2a5cc75b05370:1234	
60	HMAC-MD5 (key = \$salt)	bfd280436f45fa38eaacac3b00518f29:1234	
100	SHA1	b89eaac7e61417341b710b727768294d0e6a277b	
110	sha1(\$pass.\$salt)	2fc5a684737ce1bf7b3b239df432416e0dd07357:2014	
120	sha1(\$salt.\$pass)	cac35ec206d868b7d7cb0b55f31d9425b075082b:5363620024	
130	sha1(utf16le(\$pass).\$salt)	c57f6ac1b71f45a07dbd91a59fa47c23abcd87c2:631225	
140	sha1(\$salt.utf16le(\$pass))	5db61e4cd8776c7969cfd62456da639a4c87683a:8763434884872	
150	HMAC-SHA1 (key = \$pass)	c898896f3f70f61bc3fb19bef222aa860e5ea717:1234	
160	HMAC-SHA1 (key = \$salt)	d89c92b4400b15c39e462a8caa939ab40c3aeeea:1234	
200	MySQL323	7196759210defdc0	
300	MySQL4.1/MySQL5	fcf7c1b8749cf99d88e5f34271d636178fb5d130	
400	phpass, WordPress (MD5), Joomla (MD5)	\$P\$984478476lagS59wHZvyQMArzfx58u.	
400	phpass, phpBB3 (MD5)	\$H\$984478476lagS59wHZvyQMArzfx58u.	
500	md5crypt, MD5 (Unix), Cisco-IOS \$1\$ (MD5) <sup>2</sup>	\$1\$28772684\$iEwNOgGugqO9.blz5sk8k/	
501	Juniper IVE	3u+UR6n8AgABAAAAHxxdXKmiOmUoqKnZlf8lTOhlPYy93EAkbPfs5+49YLFd/B1+omSKbW7DoqNM40/EeVnwJ8kYoXv9zy	
600	BLAKE2b-512	\$BLAKE2\$296c269e70ac5f0095e6fb47693480f0f7b97ccd0307f5c3bfa4df8f5ca5c9308a0e7108e80a0a9c0ebb715e8b71	
900	MD4	afe04867ec7a3845145579a95f72eca7	
1000	NTLM	b4b9b02e6f09a9bd760f388b67351e2b	
1100	Domain Cached Credentials (DCC), MS Cache	4dd8965d1d476fa0d026722989a6b772:3060147285011	
1300	SHA-224	e4fa1555ad877bf0ec455483371867200eee89550a93eff2f95a6198	
1400	SHA-256	127e6fbfe24a750e72930c220a8e138275656b8e5d8f48a98c3c92df2caba935	
1410	sha256(\$pass.\$salt)	c73d08de890479518ed60cf670d17faa26a4a71f995c1dcc978165399401a6c4:53743528	
1420	sha256(\$salt.\$pass)	eb368a2dfd38b405f014118c7d9747fcc97f4f0ee75c05963cd9da6ee65ef498:560407001617	
1430	sha256(utf16le(\$pass).\$salt)	4cc8eb60476c33edac52b5a7548c2c50ef0f9e31ce656c6f4b213f901bc87421:890128	
1440	sha256(\$salt.utf16le(\$pass))	a4bd99e1e0aba51814e81388badb23ecc560312c4324b2018ea76393ea1caca9:12345678	
1450	HMAC-SHA256 (key = \$pass)	abaf88d66bf2334a4a8b207cc61a96fb46c3e38e882e6f6f886742f688b8588c:1234	
1460	HMAC-SHA256 (key = \$salt)	8efbef4cec28f228fa948daaf4893ac3638fbae81358ff9020be1d7a9a509fc6:1234	
1500	descrypt, DES (Unix), Traditional DES	48c/R8JAv757A	
1600	Apache \$apr1\$ MD5, md5apr1, MD5 (APR)	\$apr1\$71850310\$gh9m4xcAn3MGxogwX/ztb.	
1700	SHA-512	82a9dda829eb7f8ffe9fbe49e45d47d2dad9664fbb7adf72492e3c81ebd3e29134d9bc12212bf83c6840f10e8246b9db54a	
1710	sha512(\$pass.\$salt)	e5c3ede3e49fb86592fb03f471c35ba13e8d89b8ab65142c9a8fdafb635fa2223c24e5558fd9313e8995019dcbec1fb5841	
1720	sha512(\$salt.\$pass)	976b451818634a1e2acba682da3fd6efa72adf8a7a08d7939550c244b237c72c7d42367544e826c0c83fe5c02f97c0373b	
1730	sha512(utf16le(\$pass).\$salt)	13070359002b6fbb3d28e50fba55efcf3d7cc115fe6e3f6c98bf0e3210f1c6923427a1e1a3b214c1de92c467683f6466727	
1-10			

bae3a3358b3459c761a3ed40d34022f0609a02d90a0d7274610b16147e58ece00cd849a0bd5cf6a92ee5eb5687075b4e

94cb9e31137913665dbea7b058e10be5f050cc356062a2c9679ed0ad6119648e7be620e9d4e1199220cd02b9efb2b1c78

Control Carlot Control Contr	1760	$HWAC-3HA312 \; (Rey = \$Sail)$	/CCE90015505e292d515011250d0/19/1dd54424001540190e5/9b5dede2155//0e5e/521CC21/bdC0415d400eeb1010Cb//
Control   Cont	1800	sha512crypt \$6\$, SHA512 (Unix) <sup>2</sup>	\$6\$52450745\$k5ka2p8bFuSmoVT1tzOyyuaREkkKBcCNqoDKzYiJL9RaE8yMnPgh2XzzF0NDrUhgrcLwg78xs1w5pJiypEdFX/20120000000000000000000000000000000000
Comment   Comm	2100		\$DCC2\$10240#tom#e4e938d12fe5974dc42a90120bd9c90f
	2400	Cisco-PIX MD5	dRRVnUmUHXOTt9nk
1909   MMX/MMX_1904.11	2410	Cisco-ASA MD5	02dMBMYkTdC5Ziyp:36
	2500	WPA/WPA2 <sup>1</sup>	https://hashcat.net/misc/example_hashes/hashcat.hccapx [https://hashcat.net/misc/example_hashes/hashcat.hccapx]
	2501	WPA/WPA2 PMK <sup>14</sup>	https://hashcat.net/misc/example_hashes/hashcat-pmk.hccapx [https://hashcat.net/misc/example_hashes/hashcat-pmk.hc
	2600	md5(md5(\$pass))	a936af92b0ae20b1ff6c3347a72e5fbe
	3000	LM	299bd128c1101fd6
	3100	Oracle H: Type (Oracle 7+), DES(Oracle)	7A963A529D2E3229:3682427524
	3200	bcrypt \$2*\$, Blowfish (Unix)	\$2a\$05\$LhayLxezLhK1LhWvKxCyLOj0j1u.Kj0jZ0pEmm134uzrQlFvQJLF6
	3710	md5(\$salt.md5(\$pass))	95248989ec91f6d0439dbde2bd0140be:1234
	3800	md5(\$salt.\$pass.\$salt)	2e45c4b99396c6cb2db8bda0d3df669f:1234
		·	
### 1800   md5(stroupper(md5(5pass))		· · · · · · · · · · · · · · · · · · ·	
### PROFESSION		·	
halifsalt.shalifspass			
4710		·	
A		·	
Samura   S		,	
		·	
NEF-SK SHA1			
https://hashcat.net/misc/example_hashes/hashcat.ikesha1 [https://hashcat.net/misc/example_hashes/hashcat.ikesha1 [https://hashcat.net/misc/example_hashes/hashcat.i			
NetNTLMV1 / NetNTLMV1+ESS			
		·	
Samsung Android Password/PIN 0223b799d526b596fe4ba5628b9e5068227e68e:f6d458227z8ddb2c  6000 RIPEMD-160 012cb9b334ec1aeb71a9&8ce85586082467f7eb6  6100 Whirlpool 7ca8eaaa15eaa4c038b4c47b9313e92da827c06940e69947f85bc0fbef3eb8fd254da220ad9e208b6b28f6bb9b631c  6211 TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Serpent PBKDF2-HMAC- RIPEMD160 + Serpent-RIPEMD160 + Serpent-RIPEMD			
6100 RIPEMD-160 012cb9b334eclaeb71a9c8ce85586082467f7eb6 620 Whirlpool			
TrueCrypt   S.0+ PBKDF2-HMAC- RIPEMD160 + AES   PBKDF2-HMAC-		· · · · · · · · · · · · · · · · · · ·	
TrueCrypt			
RIPEMD160 + Serpent  TrueCrypt		TrueCrypt 5.0+ PBKDF2-HMAC-	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ri
RIPEMD160 + Twofish https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_shass12_aes-twofish-aes.tc [https://hash	6211		https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent.tc [https://hashcat.net/misc/example_hashes/hashc
RIPEMD160 + AES-Twofish  TrueCrypt	6211		https://hashcat.net/misc/example_hashes/hashcat_ripemd160_twofish.tc [https://hashcat.net/misc/example_hashes/hashc
RIPEMD160 + AES—Twofish—Serpent   https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twonsh—serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent—twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent—twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent—twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent_twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent_twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish_tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish_tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-to [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-to [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-to [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-to [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent—twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent—twofish—aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish—serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish—serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish—serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish—serpent.tc [https://hash	6212		https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish.tc [https://hashcat.net/misc/example_hashes/h
RIPEMD160 + Serpent-AES  TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Serpent-Twofish-AES  https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/e	6213	RIPEMD160 + AES-Twofish-Serpent	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent.tc [https://hashcat.net/misc/example_
RIPEMD160 + Serpent-Twofish-AES  fttps://hashcat.net/misc/example_hashes/hashcat_ripemd160_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha		RIPEMD160 + Serpent-AES	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-aes.tc [https://hashcat.net/misc/example_hashes/h
RIPEMD160 + Twofish-Serpent  RIPEMD160 + AES  RIPEMD160 + Twofish-Serpent  RIPEMD160 + AES  RIPEMD160 + Twofish-Serpent  RIPEMD160 + AES  RIPEMD160 + AES  RIPEMD160 + Twofish-Serpent  RIPEMD160 + AES  RIPEMD160 + A	6213	RIPEMD160 + Serpent-Twofish-AES	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes.tc [https://hashcat.net/misc/example_
TrueCrypt 5.0+ SHA512 + Serpent https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent.tc [https://hashcat.net/misc/example_		RIPEMD160 + Twofish-Serpent	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_twofish-serpent.tc [https://hashcat.net/misc/example_hash
TrueCrypt 5.0+ SHA512 + AES-Twofish https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.t			
TrueCrypt 5.0+ SHA512 + AES-Twofish https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofi		· · · · · · · · · · · · · · · · · · ·	
TrueCrypt 5.0+ SHA512 + AES-Twofish- Serpent https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/  TrueCrypt 5.0+ SHA512 + Serpent-AES https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/  TrueCrypt 5.0+ SHA512 + Serpent- Twofish-AES https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example		,.	
TrueCrypt 5.0+ SHA512 + Serpent-AES https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofi		TrueCrypt 5.0+ SHA512 + AES-Twofish-	https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_aes-twofish-serpent.tc [https://hashcat.net/misc/example_hashcat.net/misc/examp
TrueCrypt 5.0+ SHA512 + Serpent- https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_whirlpool_serpent.tc [https://hashcat.net/misc/exa	6222	•	https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-aes.tc[https://hashcat.net/misc/example_hashes/hash
TrueCrypt 5.0+ SHA512 + Twofish- https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_h		TrueCrypt 5.0+ SHA512 + Serpent-	https://hashcat.net/misc/example_hashes/hashcat_sha512_serpent-twofish-aes.tc [https://hashcat.net/misc/example_hash
6231 TrueCrypt 5.0+ Whirlpool + AES https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_whirlpool_serpent.tc [https://hashcat.net/misc/example_hashcat_whirlpool_serpent.tc [https://hashcat.net/misc/example_hashcat_whirlpool_ser	6222	TrueCrypt 5.0+ SHA512 + Twofish-	https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashes/hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha512_twofish-serpent.tc [https://hashcat.net/misc/example_hashcat_sha612_twofish-serpent.tc [http
	6231	•	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes.tc [https://hashcat.net/misc/example_hashes/hashcat_whi
6231 TrueCrypt 5.0+ Whirlpool + Twofish https://hashcat.net/misc/example hashes/hashcat whirlpool twofish.tc.[https://hashcat.net/misc/example hashes/hashcat.whirlpool twofish.tc.[https://hashcat.net/wisc/example hashes/hashcat.whirlpool twofish.tc.[https://hashcat.net/wisc/example hashes/hashcat.whirlpool twofish.tc.[https://hashcat.net/wisc/example hashes/hashcat.whirlpool twofish.tc.[https://hashcat.net/wisc/example hashcat.whirlpool twofish.tc.[https://hashcat.whirlpool twofish.tc.]	6231	TrueCrypt 5.0+ Whirlpool + Serpent	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_serpent.tc [https://hashcat.net/misc/example_hashes/hashcat
Table 1	6231	TrueCrypt 5.0+ Whirlpool + Twofish	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_twofish.tc [https://hashcat.net/misc/example_hashes/hashcat

7cce966f5503e292a51381f238d071971ad5442488f340f98e379b3aeae2f33778e3e732fcc2f7bdc04f3d460eebf6f8cb77

HMAC-SHA512 (key = \$salt)

1760

6232	TrueCrypt 5.0+ Whirlpool + AES-Twofish	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes-twofish.tc [https://hashcat.net/misc/example_hashes/hashcat.net/misc/example_hashcat.net/misc/	
6233	TrueCrypt 5.0+ Whirlpool + AES-Twofish- Serpent	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_aes-twofish-serpent.tc [https://hashcat.net/misc/example_h	
6232	TrueCrypt 5.0+ Whirlpool + Serpent-AES	https://hashcat.net/misc/example_hashes/hashcat_whirlpool_serpent-aes.tc [https://hashcat.net/misc/example_hashes/ha	
6233	TrueCrypt 5.0+ Whirlpool + Serpent- Twofish-AES	nttps://hashcat.net/misc/example_hashes/hashcat_whirlpool_serpent-twofish-aes.tc [https://hashcat.net/misc/example_h	
6232	TrueCrypt 5.0+ Whirlpool + Twofish- Serpent	nttps://hashcat.net/misc/example_hashes/hashcat_whirlpool_twofish-serpent.tc [https://hashcat.net/misc/example_hashe	
6241	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + AES + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes_boot.tc [https://hashcat.net/misc/example_hashes/hash	
6241	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Serpent + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent_boot.tc [https://hashcat.net/misc/example_hashes/	
6241	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Twofish + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_twofish_boot.tc [https://hashcat.net/misc/example_hashes/	
6242	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + AES-Twofish + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish_boot.tc [https://hashcat.net/misc/example_hash	
6243	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + AES-Twofish-Serpent + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_aes-twofish-serpent_boot.tc [https://hashcat.net/misc/exa	
6242	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Serpent-AES + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-aes_boot.tc [https://hashcat.net/misc/example_hashes	
6243	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Serpent-Twofish-AES + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_serpent-twofish-aes_boot.tc [https://hashcat.net/misc/exa	
6242	TrueCrypt 5.0+ PBKDF2-HMAC- RIPEMD160 + Twofish-Serpent + boot	https://hashcat.net/misc/example_hashes/hashcat_ripemd160_twofish-serpent_boot.tc [https://hashcat.net/misc/example	
6300	AIX {smd5}	{smd5}a5/yTL/u\$VfvgyHx1xUlXZYBocQpQY0	
6400	AIX {ssha256}	{ssha256}06\$aJckFGJAB30LTe10\$ohUsB7LBPlgclE3hJg9x042DLJvQyxVCX.nZZLEz.g2	
6500	AIX {ssha512}	{ssha512}06\$bJbkFGJAB30L2e23\$bXiXjyH5YGIyoWWmEVwq67nCU5t7GLy9HkCzrodRCQCx3r9VvG98o7O3V0r9cVrX3LPPG	
6600	1Password, agilekeychain	https://hashcat.net/misc/example_hashes/hashcat.agilekeychain [https://hashcat.net/misc/example_hashes/hashcat.agileke	
	AIX {ssha1}	{ssha1}06\$bJbkFGJAB30L2e23\$dCESGOsP7jallAJ1QAcmaGeG.kr	
6800	LastPass + LastPass sniffed <sup>4</sup>	a2d1f7b7a1862d0d4a52644e72d59df5:500:lp@trash-mail.com	
	GOST R 34.11-94	df226c2c6dcb1d995c0299a33a084b201544293c31fc3d279530121d36bbcea9	
7000	FortiGate (FortiOS)	AK1AAECAwQFBgclCRARNGqgeC3is8gv2xWWRony9NJnDgE=	
7100	OSX v10.8+ (PBKDF2-SHA512)	\$ml\$35460\$93a94bd24b5de64d79a5e49fa372827e739f4d7b6975c752c9a0ff1e5cf72e05\$752351df64dd2ce9dc9c64a	
	GRUB 2	grub.pbkdf2.sha512.10000.7d391ef48645f626b427b1fae06a7219b5b54f4f02b2621f86b5e36e83ae492bd1db60871e4	
7300	IPMI2 RAKP HMAC-SHA1	b7c2d6f13a43dce2e44ad120a9cd8a13d0ca23f0414275c0bbe1070d2d1299b1c04da0f1a0f1e4e2537300263a22000000	
7400	sha256crypt \$5\$, SHA256 (Unix) <sup>2</sup>	\$5\$rounds=5000\$GX7BopJZJxPc/KEK\$le16UF8I2Anb.rOrn22AUPWvzUETDGefUmAV8AZkGcD	
7500	Kerberos 5 AS-REQ Pre-Auth etype 23	\$krb5pa\$23\$user\$realm\$salt\$4e751db65422b2117f7eac7b721932dc8aa0d9966785ecd958f971f622bf5c42dc0c70b53	
7700	SAP CODVN B (BCODE)	USER\$C8B48F26B87B7EA7	
7701	SAP CODVN B (BCODE) mangled from RFC_READ_TABLE	027642760180\$77EC386300000000	
7800	SAP CODVN F/G (PASSCODE)	USER\$ABCAD719B17E7F794DF7E686E563E9E2D24DE1D0	
7801	SAP CODVN F/G (PASSCODE) mangled from RFC_READ_TABLE	604020408266\$32837BA7B97672BA4E5A00000000000000000000000000000000000	
7900	Drupal7	\$\$\$C33783772bRXEx1aCsvY.dqgaaSu76XmVlKrW9Qu8lQlvxHlmzLf	
	Sybase ASE  Citain NatScalar	0xc00778168388631428230545ed2c976790af96768afa0806fe6c0da3b28f3e132137eac56f9bad027ea2	
8100 8200	Citrix NetScaler  1Password, cloudkeychain	1765058016a22f1b4e076dccd1c3df4e8e5c0839ccded98ea https://hashcat.net/misc/example_hashes/hashcat.cloudkeychain [https://hashcat.net/misc/example_hashes/hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat.cloudkeychain [https://hashcat.net/misc/example_hashcat	
8300	DNSSEC (NSEC3)	7b5n74kq8r441blc2c5qbbat19baj79r:.lvdsiqfj.net:33164473:1	
8400	WBB3 (Woltlab Burning Board)	8084df19a6dc81e2597d051c3d8b400787e2d5a9:6755045315424852185115352765375338838643	
8500	RACF	\$racf\$*USER*FC2577C6EBE6265B	
8600	Lotus Notes/Domino 5	3dd2e1e5ac03e230243d58b8c5ada076	
8700	Lotus Notes/Domino 6	(GDpOtD35gGlyDksQRxEU)	
8800	Android FDE <= 4.3	https://hashcat.net/misc/example_hashes/hashcat.android43fde [https://hashcat.net/misc/example_hashes/hashcat.android43fde [https://hashcat.net/misc/example_hashcat.android43fde [https://hashcat.android43fde [https://hashcat.an	
8900	scrypt	SCRYPT:1024:1:1:MDIwMzMwNTQwNDQyNQ==:5FW+zWivLxgCWj7qLiQbeC8zaNQ+qdO0NUinvqyFcfo=	
9000	Password Safe v2	https://hashcat.net/misc/example_hashes/hashcat.psafe2.dat [https://hashcat.net/misc/example_hashes/hashcat.psafe2.dat	
9100	Lotus Notes/Domino 8	(HsjFebq0Kh9kH7aAZYc7kY30mC30mC3KmC30mCluagXrvWKj1)	
9200	Cisco-IOS \$8\$ (PBKDF2-SHA256)	\$8\$TnGX/fE4KGHOVU\$pEhnEvxrvaynpi8j4f.EMHr6M.FzU8xnZnBr/tJdFWk	
9300	Cisco-IOS \$9\$ (scrypt)	\$9\$2MJBozw/9R3UsU\$2IFhcKvpghcyw8deP25GOfyZaagyUOGBymkryvOdfo6	
9400	MS Office 2007	\$office\$*2007*20*128*16*411a51284e0d0200b131a8949aaaa5cc*117d532441c63968bee7647d9b7df7d6*df1d601ccf	
9500	MS Office 2010	\$office\$*2010*100000*128*16*77233201017277788267221014757262*b2d0ca4854ba19cf95a2647d5eee906c*e30cl	
9600	MS Office 2013  MS Office ← 2003 MD5 + RC4,	\$office\$*2013*100000*256*16*7dd611d7eb4c899f74816d1dec817b3b*948dc0b2c2c6c32f14b5995a543ad037*0b7ee \$oldoffice\$1*04477077758555626246182730342136*b1b72ff351e41a7c68f6b45c4e938bd6*0d95331895e99f73ef8b	
3700	oldoffice\$0, oldoffice\$1  MS Office ← 2003 SHA1 + RC4,		
	ms office v 2005 SHAT T RC4,		

9800	oldoffice\$3, oldoffice\$4	\$oldoffice\$3*83328705222323020515404251156288*2855956a165ff6511bc7f4cd77b9e101*941861655e73a09c40f7
9810	MS Office ← 2003 \$3, SHA1 + RC4, collider #1	\$oldoffice\$3*83328705222323020515404251156288*2855956a165ff6511bc7f4cd77b9e101*941861655e73a09c40f7
9820	MS Office ← 2003 \$3, SHA1 + RC4, collider #2	\$oldoffice\$3*83328705222323020515404251156288*2855956a165ff6511bc7f4cd77b9e101*941861655e73a09c40f7
9900	Radmin2	22527bee5c29ce95373c4e0f359f079b
10000	Django (PBKDF2-SHA256)	pbkdf2_sha256\$20000\$H0dPx8NeajVu\$GiC4k5kqbbR9qWBlsRgDywNqC2vd9kqfk7zdorEnNas=
10100	SipHash	ad61d78c06037cd9:2:4:81533218127174468417660201434054
	CRAM-MD5	\$cram_md5\$PG5vLXJlcGx5QGhhc2hjYXQubmV0Pg==\$dXNlciA0NGVhZmQyMmZlNzY2NzBmNmlyODc5MDgxYTdmNWY3I
		{x-issha, 1024}C0624EvGSdAMCtuWnBBYBGA0chvqAflKY74oEpw/rpY=
	PDF 1.1 – 1.3 (Acrobat 2 – 4)	\$pdf\$1*2*40*-1*0*16*51726437280452826511473255744374*32*9b09be05c226214fa1178342673d86f273602b951
	PDF 1.4 – 1.6 (Acrobat 5 – 8)	\$pdf\$2*3*128*-1028*1*16*da42ee15d4b3e08fe5b9ecea0e02ad0f*32*c9b59d72c7c670c42eeb4fca1d2ca1500000000
	·	
	PDF 1.7 Level 3 (Acrobat 9)	\$pdf\$5*5*256*-1028*1*16*20583814402184226866485332754315*127*f95d927a94829db8e2fbfbc9726ebe0a391b2
	PDF 1.7 Level 8 (Acrobat 10 – 11)	\$pdf\$5*6*256*-1028*1*16*21240790753544575679622633641532*127*2d1ecff66ea354d3d34325a6503da57e03c1
	SHA-384	07371af1ca1fca7c6941d2399f3610f1e392c56c6d73fddffe38f18c430a2817028dae1ef09ac683b62148a2c8757f42
	PBKDF2-HMAC-SHA256	sha256:1000:MTc3MTA0MTQwMjQxNzY=:PYjCU215Mi57AYPKva9j7mvF4Rc5bCnt
	PrestaShop	810e3d12f0f10777a679d9ca1ad7a8d9:M2uZ122bSHJ4Mi54tXGY0lqcv1r28mUluSkyw37ou5oia4i239ujqw0l
11100	PostgreSQL CRAM (MD5)	\$postgres\$postgres*f0784ea5*2091bb7d4725d1ca85e8de6ec349baf6
11200	MySQL CRAM (SHA1)	\$mysqlna\$1c24ab8d0ee94d70ab1f2e814d8f0948a14d10b9*437e93572f18ae44d9e779160c2505271f85821d
11300	Bitcoin/Litecoin wallet.dat	\$bitcoin\$96\$d011a1b6a8d675b7a36d0cd2efaca32a9f8dc1d57d6d01a58399ea04e703e8bbb44899039326f7a00f171a7
11400	SIP digest authentication (MD5)	\$sip\$*192.168.100.100*192.168.100.121*username*asterisk*REGISTER*sip*192.168.100.121**2b01df0b****MD5*ad05
11500	CRC32 <sup>5</sup>	c762de4a:00000000
11600		\$7z\$0\$19\$0\$salt\$8\$f6196259a7326e3f0000000000000000\$185065650\$112\$98\$f3bc2a88062c419a25acd40c0c2d7
	GOST R 34.11–2012 (Streebog) 256–bit	57e9e50caec93d72e9498c211d6dc4f4d328248b48ecf46ba7abfa874f666e36
11750	HMAC-Streebog-256 (key = \$pass), big- endian	0f71c7c82700c9094ca95eee3d804cc283b538bec49428a9ef8da7b34effb3ba:08151337
11760	HMAC-Streebog-256 (key = \$salt), big-endian	d5c6b874338a492ac57ddc6871afc3c70dcfd264185a69d84cf839a07ef92b2c:08151337
11800	GOST R 34.11-2012 (Streebog) 512-bit	5d5bdba48c8f89ee6c0a0e11023540424283e84902de08013aeeb626e819950bb32842903593a1d2e8f71897ff7fe72e1
11850	HMAC-Streebog-512 (key = \$pass), big-endian	be4555415af4a05078dcf260bb3c0a35948135df3dbf93f7c8b80574ceb0d71ea4312127f839b7707bf39ccc932d9e7cb79
11860	HMAC-Streebog-512 (key = \$salt), big- endian	bebf6831b3f9f958acb345a88cb98f30cb0374cff13e6012818487c8dc8d5857f23bca2caed280195ad558b8ce393503e63
	PBKDF2-HMAC-MD5	md5:1000:MTg1MzA=:Lz84VOcrXd699Edsj34PP98+f4f3S0rTZ4kHAIHoAjs=
12000	PBKDF2-HMAC-SHA1	sha1:1000:MzU4NTA4MzIzNzA1MDQ=:19ofiY+ahBXhvkDsp0j2ww==
12100	PBKDF2-HMAC-SHA512	sha512:1000:ODQyMDEwNjQyODY=:MKaHNWXUsuJB3IEwBHbm3w==
12200	eCryptfs	\$ecryptfs\$0\$1\$7c95c46e82f364b3\$60bba503f0a42d0c
12300	Oracle T: Type (Oracle 12+)	78281A9C0CF626BD05EFC4F41B515B61D6C4D95A250CD4A605CA0EF97168D670EBCB5673B6F5A2FB9CC4E0C0101E6
12400	BSDiCrypt, Extended DES	_9G8147mpcfKT8g0U.
12500	RAR3-hp	\$RAR3\$*0*45109af8ab5f297a*adbf6c5385d7a40373e8f77d7b89d317
12600	ColdFusion 10+	aee9edab5653f509c4c63e559a5e967b4c112273bc6bd84525e630a3f9028dcb:51362568667837773345747837828104
12700	Blockchain, My Wallet	\$blockchain\$288\$5420055827231730710301348670802335e45a6f5f631113cb1148a6e96ce645ac69881625a115fd3
12800	MS-AzureSync PBKDF2-HMAC-SHA256	v1;PPH1_MD4,84840328224366186645,100,005a491d8bf3715085d69f934eef7fb19a15ffc233b5382d9827910bc32f35
	Android FDE (Samsung DEK)	38421854118412625768408160477112384218541184126257684081604771129b6258eb22fc8b9d08e04e6450f72b
13000		\$rar5\$16\$74575567518807622265582327032280\$15\$f8b4064de34ac02ecabfe9abdf93ed6a\$8\$9843834ed0f7c754
	Kerberos 5 TGS-REP etype 23	\$krb5tgs\$23\$*user\$realm\$test/spn*\$63386d22d359fe42230300d56852c9eb\$891ad31d09ab89c6b3b8c5e5de6c06a7f
	AxCrypt	\$axcrypt\$*1*10000*aaf4a5b4a7185551fea2585ed69fe246*45c616e901e48c6cac7ff14e8cd99113393be259c595325e
	AxCrypt in-memory SHA1 <sup>13</sup>	\$axcrypt_sha1\$b89eaac7e61417341b710b727768294d0e6a277b
_	KeePass 1 AES / without keyfile	\$keepass\$*1*50000*0*375756b9e6c72891a8e5645a3338b8c8*82afc053e8e1a6cfa39adae4f5fe5e59f545a54d6956593
	· · · · · · · · · · · · · · · · · · ·	·
	KeePass 2 AES / without keyfile	\$keepass\$*2*6000*222*a279e37c38b0124559a83fa452a0269d56dc4119a5866d18e76f1f3fd536d64d*7ec7a06bc975e
	KeePass 1 Twofish / with keyfile	\$keepass\$*1*6000*1*31c087828b0bb76362c10cae773aacdf*6d6c78b4f82ecbcd3b96670cf490914c25ea8c31bc3aeb3f
	Keepass 2 AES / with keyfile	\$keepass\$*2*6000*222*15b6b685bae998f2f608c909dc554e514f2843fbac3c7c16ea3600cc0de30212*c417098b445cfc
	PeopleSoft PS_TOKEN	b5e335754127b25ba6f99a94c738e24cd634c35a:aa07d396f5038a6cbeded88d78d1d6c907e4079b3dc2e12fddee409a5
13600	WinZip  VeraCrypt PBKDF2-HMAC-RIPEMD160 + AES	\$zip2\$*0*3*0*e3222d3b65b5a2785b192d31e39ff9de*1320*e*19648c3e063c82a9ad3ef08ed833*3135c79ecb86cd6f48 https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes_13711.vc [https://hashcat.net/misc/example_hashes
13712	VeraCrypt PBKDF2-HMAC-RIPEMD160 + AES-Twofish	https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish_13712.vc [https://hashcat.net/misc/examp
13711	VeraCrypt PBKDF2-HMAC-RIPEMD160 + Serpent	https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_serpent_13711.vc [https://hashcat.net/misc/example_hashes
13712	VeraCrypt PBKDF2-HMAC-RIPEMD160 + Serpent-AES	https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_serpent-aes_13712.vc [https://hashcat.net/misc/examp
13713	VeraCrypt PBKDF2-HMAC-RIPEMD160 + Serpent-Twofish-AES	https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_serpent-twofish-aes_13713.vc [https://hashcat.net/mi

13712   VeraCrypt PBKDF2-HMAC-SHA256 + AES   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_twofish_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes-twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13732.vc [https://hashcat.net/misc/example_hashes/	_
VeraCrypt PBKDF2-HMAC-SHA256 + AES   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes-twofish_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes-twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes-twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_1375.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_1375.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_wc/hashcat_sha256_	2.vc [https://hashcat.net/misc/e
Twofish  13751 VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent_aes_13752.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_1375  13751 VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_1375  13752 VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc 13721 VeraCrypt PBKDF2-HMAC-SHA512 + AES https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_1372.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_1372.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_wiripool_aes_twofish_aes_1372	cat.net/misc/example_hashes/vo
Serpent   13752   VeraCrypt   PBKDF2-HMAC-SHA256   + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-aes_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-aes_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_serpent_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_serpent_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13732.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc   https://hashcat.net/misc/example_hashes/vc/	ps://hashcat.net/misc/example_l
13732   VeraCrypt   PBKDF2-HMAC-SHA256   https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_1375.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish-serpent_13752.vc https://hashcat.net/misc/example_hashes/vc/hashcat_sha252_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_serpent-twofish-aes_1372.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_twofish_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_twofish-serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha212_twofish-serpent_13722.vc https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13722.vc [https://hashcat	hashcat.net/misc/example_hash
Serpent-Twofish-AES  13751 VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_13751.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_serpent_13752.vc  13721 VeraCrypt PBKDF2-HMAC-SHA512 + AES https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_1372.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_1372.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_serpent_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_serpent_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13732.v	ps://hashcat.net/misc/example_
Twofish  13752 VeraCrypt PBKDF2-HMAC-SHA512 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13722.vc [https://hashcat.net	53.vc [https://hashcat.net/misc/
Twofish-Serpent https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes_twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha	hashcat.net/misc/example_hashe
13722 VeraCrypt PBKDF2-HMAC-SHA512 + AES- Twofish PBKDF2-HMAC-SHA512 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes-twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_aes-twofish_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_serpent_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/	: [https://hashcat.net/misc/exam
Twofish  13721 VeraCrypt PBKDF2-HMAC-SHA512 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_aes_1372	cat.net/misc/example_hashes/vo
Serpent  13722   VeraCrypt   PBKDF2-HMAC-SHA512   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13722   VeraCrypt   PBKDF2-HMAC-SHA512   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc	ps://hashcat.net/misc/example_l
Serpent-AES    https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-aes_13722.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_1372	hashcat.net/misc/example_hash
Serpent-Twofish-AES  13721 VeraCrypt Twofish PBKDF2-HMAC-SHA512 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc	ps://hashcat.net/misc/example_
Twofish  13722 VeraCrypt PBKDF2-HMAC-SHA512 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish-serpent_13722.vc  13731 VeraCrypt PBKDF2-HMAC-Whirlpool + https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732	23.vc [https://hashcat.net/misc/
Twofish–Serpent    13731   VeraCrypt   PBKDF2-HMAC-Whirlpool   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes-twofish_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://has	hashcat.net/misc/example_hashe
AES  13732   VeraCrypt   PBKDF2-HMAC-Whirlpool   https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13733.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13	[https://hashcat.net/misc/exam
AES-Twofish  VeraCrypt PBKDF2-HMAC-Whirlpool + https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net	shcat.net/misc/example_hashes/
13731   Serpent   https://hashcat.net/misc/example_nashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_aes_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13733.vc [https://hashcat_net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13733.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13733.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_twofish_aes_13733.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whi	nttps://hashcat.net/misc/example
Serpent-AES   Interpretation   Serpent-AES	//hashcat.net/misc/example_has
TINES TO THE PROPERTY OF THE P	nttps://hashcat.net/misc/exampl
	733.vc [https://hashcat.net/misc
VeraCrypt PBKDF2-HMAC-Whirlpool + https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish_13731.vc [https://hashcat.net/misc/example_hashcat_whirlpool_twofish_13731.vc [https://hashcat.net/misc/example_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_twofish_hashcat_whirlpool_tw	//hashcat.net/misc/example_has
VeraCrypt PBKDF2-HMAC-Whirlpool + https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish-serpent_13732.v	vc [https://hashcat.net/misc/exa
VeraCrypt PBKDF2-HMAC-RIPEMD160 + https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes_boot.vc [https://hashcat_ripemd160_aes_boot.v	shcat.net/misc/example_hashes/
VeraCrypt PBKDF2-HMAC-RIPEMD160 + https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_aes-twofish_boot.vc [https://hashcat.net/misc/example_hashcat_ripemd160_a	ttps://hashcat.net/misc/example
VeraCrypt PBKDF2-HMAC-RIPEMD160 + https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish-serpent_beat-beat-beat-beat-beat-beat-beat-beat-	ooot.vc [https://hashcat.net/misc
VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_boot.vc [https://hashcat.net/misc/example_hashcat_sha256_twofish_boot.vc [	.shcat.net/misc/example_hashes
VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-aes_boot.vc [https://bashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-aes_boot.vc [https://bashcat.net/misc/example_hashcat_sha256_serpent-aes_boot.vc [https://bashcat.net/misc/example_hashcat_sha256_se	:://hashcat.net/misc/example_ha
VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_boot.	.vc [https://hashcat.net/misc/ex
VeraCrypt PBKDF2-HMAC-SHA256 + https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boot_pim500.vc [https://bashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boot_pim500.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boot_pim500.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boo	:://hashcat.net/misc/example_ha
13800 Windows Phone 8+ PIN/password 95fc4680bcd2a5f25de3c580cbebadbbf256c1f0ff2e9329c58e36f8b914c11f:44713471564	480581513210137061422464
13900 OpenCart 6e36dcfc6151272c797165fce21e68e7c7737e40:472433673	
14000 DES (PT = \$salt, key = \$pass) 8 a28bc61d44bb815c:1172075784504605	
14100 3DES (PT = \$salt, key = \$pass) 9 37387ff8d8dafe15:8152001061460743	
14400 sha1(CX) fd9149fb3ae37085dc6ed1314449f449fbf77aba:87740665218240877702	
14600 LUKS <sup>10</sup> https://hashcat.net/misc/example_hashes/hashcat_luks_testfiles.7z [https://hashcat.net/misc/example_hashes/hashcat_luks_testfiles.7z [https://hashcat.net/misc/example_hashcat_luks_testfiles.7z [https	isc/example_hashes/hashcat_luk
14700 iTunes backup < 10.0 <sup>11</sup> \$itunes_backup\$*9*b8e3f3a970239b22ac199b622293fe4237b9d16e74bad2c3c3568cd1b	bd3c471615a6c4f867265642
14800 iTunes backup >= 10.0 <sup>11</sup> \$itunes_backup\$*10*8b715f516ff8e64442c478c2d9abb046fc6979ab079007d3dbcef3ddc	d84217f4c3db01362d88fa68*
14900 Skip32 (PT = \$salt, key = \$pass) <sup>12</sup> c9350366:44630464	
15000 FileZilla Server >= 0.9.55 632c4952b8d9adb2c0076c13b57f0c934c80bdc14fc1b4c341c2e0a8fd97c4528729c7bd7e	ed1268016fc44c3c222445ebb
15100 Juniper/NetBSD sha1crypt \$sha1\$15100\$jiJDkz0E\$E8C7RQAD3NetbSDz7puNAY.5Y2jr	
15200 Blockchain, My Wallet, V2 \$blockchain\$v2\$5000\$288\$06063152445005516247820607861028813ccf6dcc5793dc0	

15300	DPAPI master key file version 1 + local context	\$DPAPImk\$1*1*S-15-21-466364039-425773974-453930460-1925*des3*sha1*24000*b038489dee5ad04e3e3cab4d9
15400	ChaCha20	\$chacha20\$*040000000000003*9*02000000000001*4a4b4c4d4e4f5051*676e31b5ad612c2b
15500	JKS Java Key Store Private Keys (SHA1)	\$jksprivk\$*5A3AA3C3B7DD7571727E1725FB09953EF3BEDBD9*0867403720562514024857047678064085141322*81*
15600	Ethereum Wallet, PBKDF2-HMAC-SHA256 \$ethereum\$p*262144*32383831373131303534383437373837363234373534373838313730343437	
15700	Ethereum Wallet, SCRYPT	\$ethereum\$s*262144*1*8*3436383737333838313035343736303637353530323430373235343034363130*8b58d9d
15900	DPAPI master key file version 2 + Active \$DPAPImk\$2*2*S-15-21-423929668-478423897-489523715-1834*aes256*sha512*8000*740866e4105c7	
16000	Tripcode	pfaRCwDe0U
16100	TACACS+	\$tacacs-plus\$0\$5fde8e68\$4e13e8fb33df\$c006
16200	Apple Secure Notes	\$ASN\$*1*20000*80771171105233481004850004085037*d04b17af7f6b184346aad3efefe8bec0987ee73418291a41
16300	Ethereum Pre-Sale Wallet, PBKDF2-HMAC- SHA256	\$ethereum\$w*e94a8e49deac2d62206bf9bfb7d2aaea7eb06c1a378cfc1ac056cc599a569793c0ecc40e6a0c242dee2812f0
16400	CRAM–MD5 Dovecot	{CRAM-MD5}5389b33b9725e5657cb631dc50017ff1535ce4e2a1c414009126506fc4327d0d
16500	JWT (JSON Web Token)	eyJhbGciOiJIUzI1NiJ9.eyIzNDM2MzQyMCI6NTc2ODc1NDd9.f1nXZ3V_Hrr6ee-AFCTLaHRnrkiKmio2t3JqwL32guY
16600	Electrum Wallet (Salt-Type 1-3)	\$electrum\$1*44358283104603165383613672586868*c43a6632d9f59364f74c395a03d8c2ea
16700	FileVault 2	\$fvde\$1\$16\$84286044060108438487434858307513\$20000\$f1620ab93192112f0a23eea89b5d4df065661f974b7041
16800	WPA-PMKID-PBKDF2 <sup>1</sup>	2582a8281bf9d4308d6f5731d0e61c61*4604ba734d4e*89acf0e761f4*ed487162465a774bfba60eb603a39f3a
16801	WPA-PMKID-PMK <sup>15</sup>	2582a8281bf9d4308d6f5731d0e61c61*4604ba734d4e*89acf0e761f4
16900	Ansible Vault	\$ansible\$0*0*6b761adc6faeb0cc0bf197d3d4a4a7d3f1682e4b169cae8fa6b459b3214ed41e*426d313c5809d4a80a4b9k
17200	PKZIP (Compressed) *	\$pkzip2\$1*1*2*0*e3*1c5*eda7a8de*0*28*8*e3*eda7*5096*a9fc1f4e951c8fb3031a6f903e5f4e3211c8fdc4671547bf77
	PKZIP (Uncompressed) *	\$pkzip2\$1*1*2*0*1d1*1c5*eda7a8de*0*28*0*1d1*eda7*5096*1dea673da43d9fc7e2be1a1f4f664269fceb6cb88723a97
	PKZIP (Compressed Multi-File) *	\$pkzip2\$3*1*1*0*8*24*a425*8827*d1730095cd829e245df04ebba6c52c0573d49d3bbeab6cb385b7fa8a28dcccd3098b
	PKZIP (Mixed Multi-File) *	\$pkzip2\$3*1*1*0*0*24*3e2c*3ef8*0619e9d17ff3f994065b99b1fa8aef41c056edf9fa4540919c109742dcb32f797fc90ce
	PKZIP (Mixed Multi-File Checksum-	
17230	Only) *	\$pkzip2\$8*1*1*0*8*24*a425*8827*3bd479d541019c2f32395046b8fbca7e1dca218b9b5414975be49942c3536298e9c
	SHA3-224	412ef78534ba6ab0e9b1607d3e9767a25c1ea9d5e83176b4c2817a6c
	SHA3-256	d60fcf6585da4e17224f58858970f0ed5ab042c3916b76b0b828e62eaf636cbd
	SHA3-384	983ba28532cc6320d04f20fa485bcedb38bddb666eca5f1e5aa279ff1c6244fe5f83cf4bbf05b95ff378dd2353617221
	SHA3-512	7c2dc1d743735d4e069f3bda85b1b7e9172033dfdd8cd599ca094ef8570f3930c3f2c0b7afc8d6152ce4eaad6057a2ff22ei
	Keccak-224	e1dfad9bafeae6ef15f5bbb16cf4c26f09f5f1e7870581962fc84636
	Keccak-256	203f88777f18bb4ee1226627b547808f38d90d3e106262b5de9ca943b57137b6
	Keccak-384	5804b7ada5806ba79540100e9a7ef493654ff2a21d94d4f2ce4bf69abda5d94bf03701fe9525a15dfdc625bfbd769701
	Keccak-512	2fbf5c9080f0a704de2e915ba8fdae6ab00bbc026b2c1c8fa07da1239381c6b7f4dfd399bf9652500da723694a4c719587d
	TOTP (HMAC-SHA1)	597056:3600
_	Kerberos 5 AS-REP etype 23	\$krb5asrep\$23\$user@domain.com:3e156ada591263b8aab0965f5aebd837\$007497cb51b6c8116d6407a782ea0e1c540
18300	Apple File System (APFS)	\$fvde\$2\$16\$58778104701476542047675521040224\$20000\$39602e86b7cea4a34f4ff69ff6ed706d68954ee474de1d2
18400	Open Document Format (ODF) 1.2 (SHA-256, AES) *	\$odf\$*1*1*100000*32*751854d8b90731ce0579f96bea6f0d4ac2fb2f546b31f1b6af9a5f66952a0bf4*16*2185a966155b
18500	sha1(md5(md5(\$pass))) *	888a2ffcb3854fba0321110c5d0d434ad1aa2880
18600	Open Document Format (ODF) 1.1 (SHA-1, Blowfish) *	\$odf\$*0*0*1024*16*bff753835f4ea15644b8a2f8e4b5be3d147b9576*8*ee371da34333b69d*16*a902eff54a4d782a26a
18700	Java Object hashCode() *	29937c08
18800	Blockchain, My Wallet, Second Password (SHA256) *	YnM6WYERjJfhxwepT7zV6odWoEUz1X4esYQb4bQ3KZ7bbZAyOTc1MDM3OTc1NjMyODA0ECcAAD3vFoc=
18900	Android Backup *	\$ab\$5*0*10000*b8900e4885ff9cad8f01ee1957a43bd633fea12491440514ae27aa83f2f5c006ec7e7fa0bce040add61991
19000	QNX /etc/shadow (MD5) *	@m@75f6f129f9c9e77b6b1b78f791ed764a@8741857532330050
19100	QNX /etc/shadow (SHA256) *	@s@0b365cab7e17ee1e7e1a90078501cc1aa85888d6da34e2f5b04f5c614b882a93@5498317092471604
19200	QNX /etc/shadow (SHA512) *	@S@715df9e94c097805dd1e13c6a40f331d02ce589765a2100ec7435e76b978d5efc364ce10870780622cee003c9951bc
19300	sha1(\$salt1.\$pass.\$salt2) *	630d2e918ab98e5fad9c61c0e4697654c4c16d73:18463812876898603420835420139870031762867:4449516425193
	Ruby on Rails Restful-Authentication *	d7d5ea3e09391da412b653ae6c8d7431ec273ea2:238769868762:8962783556527653675
19600	Kerberos 5 TGS-REP etype 17 (AES128-CTS-HMAC-SHA1-96) *	\$krb5tgs\$17\$user\$realm\$ae8434177efd09be5bc2eff8\$90b4ce5b266821adc26c64f71958a475cf9348fce65096190be0
19700	Kerberos 5 TGS-REP etype 18 (AES256-CTS-HMAC-SHA1-96) *	\$krb5tgs\$18\$user\$realm\$8efd91bb01cc69dd07e46009\$7352410d6aafd72c64972a66058b02aa1c28ac580ba41137d5a
19800	Kerberos 5, etype 17, Pre-Auth *	\$krb5pa\$17\$hashcat\$HASHCATDOMAIN.COM\$a17776abe5383236c58582f515843e029ecbff43706d177651b7b6cdb27
	Kerberos 5, etype 18, Pre-Auth *	*krb5pa\$18\$hashcat\$HASHCATDOMAIN.COM\$96c289009b05181bfd32062962740b1b1ce5f74eb12e0266cde74e81094
		https://hashcat.net/misc/example_hashes/dc/hashcat_aes.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_aes.dc]
20011	DiskCryptor SHA512 + XTS 512 bit (ALS)  DiskCryptor SHA512 + XTS 512 bit (Twofish) *	https://hashcat.net/misc/example_hashes/dc/hashcat_twofish.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_twofish.dc [https://hashcat.net/misc/example_hashcat_twofish.dc [https://hashcat.net/misc/example_hashcat_twofish.dc [https://hashcat.net/misc/example_hashcat.net/misc/exampl
20011	DiskCryptor SHA512 + XTS 512 bit (Serpent) *	https://hashcat.net/misc/example_hashes/dc/hashcat_serpent.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_ser

	···········			
20012	DiskCryptor SHA512 + XTS 1024 bit (Serpent-AES) *	https://hashcat.net/misc/example_hashes/dc/hashcat_serpent_aes.dc [https://hashcat.net/misc/example_hashes/dc/hashca		
20013	DiskCryptor SHA512 + XTS 1536 bit (AES-Twofish-Serpent) $^{\ast}$	https://hashcat.net/misc/example_hashes/dc/hashcat_aes_twofish_serpent.dc [https://hashcat.net/misc/example_hashes/d		
20200	Python passlib pbkdf2-sha512 *	pbkdf2-sha512\$25000\$LyWE0HrP2RsjZCxIDGFMKQ\$1vC5Ohk2mCS9b6akqsEfgeb4l74SF8XjH.SljXf3dMLHdlY1GK9		
20300	Python passlib pbkdf2-sha256 *	\$pbkdf2-sha256\$29000\$x9h7j/Ge8x6DMEao1VqrdQ\$kra3R1wEnY8mPdDWOpTqOTINaAmZvRMcYd8u5OBQP9A		
20400	Python passlib pbkdf2-sha1 *	\$pbkdf2\$131000\$r5WythYixPgfQ2jt3buXcg\$8Kdr.QQEOaZIXNOrrru36I/.6Po		
20500	PKZIP Master Key *	f1eff5c0368d10311dcfc419		
20510	PKZIP Master Key (6 byte optimization) <sup>17</sup>	f1eff5c0368d10311dcfc419		
20600	Oracle Transportation Management (SHA256) *	otm_sha256:1000:1234567890:S5Q9Kc0ETY6ZPyQU+JYY60oFjaJuZZaSinggmzU8PC4=		
20710	sha256(sha256(\$pass).\$salt) *	bfede293ecf6539211a7305ea218b9f3f608953130405cda9eaba6fb6250f824:7218532375810603		
20800	sha256(md5(\$pass)) *	74ee1fae245edd6f27bf36efc3604942479fceefbadab5dc5c0b538c196eb0f1		
20900	md5(sha1(\$pass).md5(\$pass).sha1(\$pass)) *	100b3a4fc1dc8d60d9bf40688d8b740a		
21000	BitShares v0.x - sha512(sha512_bin(pass)) caec04bdf7c17f763a9ec7439f7c9abda112f1bfc9b1bb684fef9b6142636979b9896cfc236896d821a69a961a143			
21100	00 sha1(md5(\$pass.\$salt)) * aade80a61c6e3cd3cac614f47c1991e0a87dd028:6			
21200	md5(sha1(\$salt).md5(\$pass)) *	e69b7a7fe1bf2ad9ef116f79551ee919:baa038987e582431a6d		
21300	md5(\$salt.sha1(\$salt.\$pass)) *	799dc7d9aa4d3f404cc21a4936dbdcde:68617368636174		
21400	sha256(sha256_bin(pass)) *	0cc1b58a543f372327aa0281e97ab56e345267ee46feabf7709515debb7ec43c		
99999	Plaintext	hashcat		
<sup>1</sup> Passv <sup>2</sup> Roun <sup>3</sup> As in	* In beta or not yet released  1 Password: "hashcat!"  2 Rounds=[# of iterations] is <b>optional</b> here, after signature, e.g. \$5\$rounds=5000  3 As in <sup>2</sup> but the number of rounds <b>must</b> be specified			
The hash used here is <b>not</b> the one sent via e.g. the web interface to LastPass servers (pbkdf2_sha256_hex (pbkdf2_sha256 (\$pass, \$email, \$iterations), \$pass, 1) but instead the one stored (by e.g. your browser or the pocket version) to disk. For instance, Opera and Chrome store the hash in local SQLite databases; Firefox uses files ending with "lpall.slps" – for Linux: 2nd line is interesting / base64 decode it; for Windows, see here [https://hashcat.net/forum/thread-2701-post-16111.html#pid16111] – and_key.itr				
<sup>6</sup> The r <sup>7</sup> The f <sup>8</sup> Passv	<ul> <li>You can consider the second part as a "salt". If it is equal to 00000000, the CRC32 code will be considered as "not salted"</li> <li>The raw sha256 output is used for base64() encoding (not the hexadecimal output)</li> <li>The format is hash:salt:id</li> <li>Password: "hashcat1"</li> <li>Password: "hashcat1hashcat1hashcat1"</li> </ul>			
10				

<sup>10</sup> This file actually contains several examples of the different hash+cipher combinations. The password is stored in the pw file.

<sup>11</sup> You can use itunes backup2hashcat [https://github.com/philsmd/itunes backup2hashcat/] to extract the hashes from the Manifest.plist file

20012 DiskCryptor SHA512 + XTS 1024 bit (AES- https://hashcat.net/misc/example\_hashes/dc/hashcat\_aes\_twofish.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_aes\_twofish.dc [https://hashcat.net/misc/example\_hashcat\_aes\_twofish.dc [https://hashcat.net/misc/example\_

https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat\_twofish\_serpent.dc [https://hashcat.net/misc/example\_hashes/dc/hashcat.net/misc/example\_hashes/dc/hashcat.net/misc/example\_hashes/dc/hashcat.net/misc/example\_hashes/dc/hashcat.net/misc/example\_hashes/dc/hashcat.net/misc/example\_has

# These hash types are usually only found on a specific platform.

Specific hash types

<sup>16</sup> PIM: 500

Twofish)

(Twofish-Serpent)

20012

DiskCryptor SHA512 + XTS 1024 bit

Hash-Hash-Name Example Mode

11	Joomla < 2.5.18	19e0e8d91c722e7091ca7a6a6fb0f4fa:54718031842521651757785603028777
12	PostgreSQL	a6343a68d964ca596d9752250d54bb8a:postgres
Z 1	osCommerce, xt:Commerce	374996a5e8a5e57fd97d893f7df79824:36

ostgres

<sup>12</sup> Password: "hashcat!!!". Min/max password length is exactly 10 characters/bytes.

13 You can use AxSuite by FistOurs [https://github.com/FistOurs/AxSuite] to retrieve the hashes.

<sup>14</sup> Password: a288fcf0caaacda9a9f58633ff35e8992a01d9c10ba5e02efdf8cb5d730ce7bc

<sup>15</sup> Password: 5b13d4babb3714ccc62c9f71864bc984efd6a55f237c7a87fc2151e1ca658a9d

 $^{17}$  full password in output is hashcat, but input provided must be without the first 6 bytes (therefore just: t)

Juniper NetScreen/SSG nNxKL2rOEkbBc9BFLsVGG6OtOUO/8n:user 22

(ScreenOS) Skype 3af0389f093b181ae26452015f4ae728:user

23 SHAnsldap, 101 1(Base64), Netscape | {SHA}uJ6qx+YUFzQbcQtyd2gpTQ5qJ3s= LDAP SHA

111	nsIdaps, SSHA- 1(Base64), Netscape LDAP SSHA	{SSHA}AZKja92fbuuB9SpRlHqaoXxbTc43Mzc2MDM1Ng==
112	Oracle S: Type (Oracle 11+)	ac5f1e62d21fd0529428b84d42e8955b04966703:38445748184477378130
121	SMF (Simple Machines Forum) > v1.1	ecf076ce9d6ed3624a9332112b1cd67b236fdd11:17782686
122	OSX v10.4, OSX v10.5, OSX v10.6	1430823483d07626ef8be3fda2ff056d0dfd818dbfe47683
124	Django (SHA-1)	sha1\$fe76b\$02d5916550edf7fc8c886f044887f4b1abf9b013
125	ArubaOS	5387280701327dc2162bdeb451d5a465af6d13eff9276efeba
131	MSSQL (2000)	0x010027025605000000000000000000000000000000
132	MSSQL (2005)	0x010018102152f8f28c8499d8ef263c53f8be369d799f931b2fbe
133	PeopleSoft	uXmFVrdBvv293L9kDR3VnRmx4ZM=
141	Episerver 6.x < .NET 4	\$episerver\$*0*bEtiVGhPNlZpcUN4a3ExTg==*utkfN0EOgljbv5FoZ6+AcZD5iLk
1411	SSHA-256(Base64), LDAP {SSHA256}	{SSHA256}OZiz0cnQ5hgyel3Emh7NCbhBRCQ+HVBwYplQunHYnER7TLuV
1421	hMailServer	8fe7ca27a17adc337cd892b1d959b4e487b8f0ef09e32214f44fb1b07e461c532e9ec3
1441	Episerver 6.x >= .NET 4	\$episerver\$*1*MDEyMzQ1Njc4OWFiY2RlZg==*lRjiU46qHA7S6ZE7RfKUcYhB85ofArj1j7TrCtu3u6Y
1711	SSHA-512(Base64), LDAP {SSHA512}	{SSHA512}ALtwKGBdRgD+U0fPAy31C28RyKYx7+a8kmfksccsOeLknLHv2DBXYI7TDnTolQMBuPkWDISgZr2cHfnNPFjGZTEyNDU4OTkw
1722	OSX v10.7	648742485c9b0acd786a233b2330197223118111b481abfa0ab8b3e8ede5f014fc7c523991c007db6882680b09962d16fd9c45568260531b
1731	MSSQL (2012, 2014)	0x02000102030434ea1b17802fd95ea6316bd61d2c94622ca3812793e8fb1672487b5c904a45a31b2ab4a78890d563d2fcf5663e46fe797d
2611	vBulletin < v3.8.5	16780ba78d2d5f02f3202901c1b6d975:568
2612	PHPS	\$PHPS\$34323438373734\$5b07e065b9d78d69603e71201c6cf29f
2711	vBulletin >= v3.8.5	bf366348c53ddcfbd16e63edfdd1eee6:181264250056774603641874043270
2811	IPB2+ (Invision Power Board), MyBB 1.2+	8d2129083ef35f4b365d5d87487e1207:47204
3711	MediaWiki B type	\$B\$56668501\$0ce106caa70af57fd525aeaf80ef2898
4521	Redmine	1fb46a8f81d8838f46879aaa29168d08aa6bf22d:3290afd193d90e900e8021f81409d7a9
4522	PunBB	4a2b722cc65ecf0f7797cdaea4bce81f66716eef:653074362104
4711	Huawei sha1(md5(\$pass).\$salt)	53c724b7f34f09787ed3f1b316215fc35c789504:hashcat1
12001	Atlassian (PBKDF2- HMAC-SHA1)	{PKCS5S2}NzIyNzM0NzY3NTIwNjI3MdDDis7wPxSbSzfFqDGf7u/L00kSEnupbz36XCL0m7wa

## **Legacy hash types**

These hash types are only supported in <a href="https://hashcat-legacy">hashcat-legacy</a> or <a href="https://ocitable.com/ocitable.co

Hash- Mode	Hash-Name	Example
<del>123</del>	<del>EPi</del>	0x326C6D7B4E4F794B79474E36704F35723958397163735263516265456E31 0xAFC55E260B8F45C0C6512BCE776C1AD8312B56E6
<del>190</del>	<del>sha1(LinkedIn)</del> 2 b89eaac7e61417341b710b727768294d0e6a277b	
<del>1431</del>	base64(sha256(unicode(\$pass))) 1	npKD5jP0p6QtOryTcBFVvor+VmDaJMh1jn01M+Ly3II=
<del>3300</del>	MD5(Sun) <sup>1</sup>	\$md5\$rounds=904\$iPPKEBnEkp3JV8uX\$0L6m7rOFTVFn.SGqo2M9W1
<del>3500</del>	md5(md5(md5(\$pass))) 1	9882d0778518b095917eb589f6998441
<del>3610</del>	md5(md5(\$salt).\$pass) 1	7b57255a15958ef898543ea6cc3313bc:1234
<del>3720</del>	md5(\$pass.md5(\$salt)) 1	10ce488714fdbde9453670e0e4cbe99c:1234
<del>3721</del>	WebEdition CMS <sup>1</sup>	fa01af9f0de5f377ae8befb03865178e:5678
<del>4210</del>	md5(\$username.0.\$pass) 1	09ea048c345ad336ebe38ae5b6c4de24:1234
4600	sha1(sha1(sha1(\$pass))) 1	dc57f246485e62d99a5110afc9264b4ccbfcf3cc

<sup>&</sup>lt;sup>1</sup> Supported in <u>hashcat-legacy</u>

## Superseded hash types

These hash types used to be in some version of hashcat, but were removed or replaced.

Hash-Mode	Hash-Name	Example	
5000	SHA-3 (Keccak)	203f88777f18bb4ee1226627b547808f38d90d3e106262b5de9ca943b57137b6	replaced by specific Keccak types in hashcat 5.0.0

Except where otherwise noted, content on this wiki is licensed under the following license: Public Domain

<sup>&</sup>lt;sup>2</sup> Supported in <u>oclHashcat</u>

