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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**.

Generic hash types

| Hash-Mode | Hash-Name | Example |
|-----------|--|--|
| 0 | MD5 | 8743b52063cd84097a65d1633f5c74f5 |
| 10 | md5(\$pass.\$salt) | 01dfae6e5d4d90d9892622325959afbe:7050461 |
| 20 | md5(\$salt.\$pass) | f0fda58630310a6dd91a7d8f0a4ceda2:4225637426 |
| 30 | md5(utf16le(\$pass).\$salt) | b31d032cfdc47a399990a71e43c5d2a: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) | d89c92b4400b15c39e462a8caa939ab40c3aeaea:1234 |
| 200 | MySQL323 | 7196759210defdc0 |
| 300 | MySQL4.1/MySQL5 | fc7c1b8749cf99d88e5f34271d636178fb5d130 |
| 400 | phpass_WordPress (MD5), Joomla (MD5) | \$P\$984478476lagS59wHZvyQMArxfx58u. |
| 400 | phpass_phpBB3 (MD5) | \$H\$984478476lagS59wHZvyQMArxfx58u. |
| 500 | md5crypt, MD5 (Unix), Cisco-IOS \$1\$ (MD5) ² | \$1\$28772684\$iEwNOgGugqO9.blz5sk8k/ |
| 501 | Juniper IVE | 3u+UR6n8AgABAAAAHxxdXKmiOmUoqKnZl8fTOhIPYy93EAKbPfs5+49YLFd/B1+omSKbW7DoqNM40/EeVnwJ8kYoXv9zy9D5C5m5A== |
| 600 | BLAKE2b-512 | \$BLAKE2\$296c269e70ac5f0095e6fb47693480f07b97ccd0307f5c3bfa4d8f5ca5c9308a0e7108e80a0a9c0ebb715e8b7109b072046c6cd5e155b4cfd2f27216283b1e |
| 900 | MD4 | afe04867ec7a3845145579a95f72eca7 |
| 1000 | NTLM | b4b9b02e6f09a9bd760f388b67351e2b |
| 1100 | Domain Cached Credentials (DCC), MS Cache | 4dd8965d1d476fa0d026722989a6b772:3060147285011 |
| 1300 | SHA-224 | e4fa1555ad877b0ec455483371867200eee89550a93eff2f95a6198 |
| 1400 | SHA-256 | 127e6f8fe24a750e72930c220a8e138275656b8e5df848a98c3c92df2caba935 |
| 1410 | sha256(\$pass.\$salt) | c73d08de890479518ed60cf670d17faa26a4a71f995c1dcc978165399401a6c4:53743528 |
| 1420 | sha256(\$salt.\$pass) | eb368a2dfd38b405f014118c7d9747fcc97f4f0ee75c05963cd9da6ee65ef498:560407001617 |
| 1430 | sha256(utf16le(\$pass).\$salt) | 4cc8eb60476c33edac52b5a7548c2c50ef0f9e31ce656c6f4b213f901bc87421:890128 |
| 1440 | sha256(\$salt.utf16le(\$pass)) | a4bd999e1e0aba51814e81388badb23ecc560312c4324b2018ea76393ea1caca9:12345678 |
| 1450 | HMAC-SHA256 (key = \$pass) | abaf88d66bf2334a4a8b207cc61a96fb46c3e38e882e6f6f886742f688b8588c:1234 |
| 1460 | HMAC-SHA256 (key = \$salt) | 8efbef4cec28f228fa948daaf4893ac3638fbae81358ff9020be1d7a9a509fc6:1234 |
| 1500 | decrypt, DES (Unix), Traditional DES | 48c/R8JAv757A |
| 1600 | Apache \$apr1\$ MD5, md5apr1, MD5 (APR) ² | \$apr1\$71850310\$gh9m4xcAn3MGxogwX/ztb. |
| 1700 | SHA-512 | 82a9dda829eb7f8ffe9f8e49e45d47d2dad9664fbb7adf72492e3c81ebd3e29134d9bc12212bf83c6840f10e8246b9db54a4859b7ccd0123d86e5872c1e5082f |
| 1710 | sha512(\$pass.\$salt) | e5c3ede3e49fb86592fb03f471c35ba13e8d89b8ab65142c9a8fdafb635fa2223c24e5558fd9313e8995019dcbec1fb584146b7bb12685c7765fc8cd0d51379fd:6352283260 |
| 1720 | sha512(\$salt.\$pass) | 976b451818634a1e2acba682da3fd6efa72adf8a7a08d7939550c244b237c72c7d42367544e826c0c83fe5c02f97c0373b6b1386cc794bf0d21d2df01bb9c08a:2613516180127 |
| 1730 | sha512(utf16le(\$pass).\$salt) | 13070359002b6fbb3d28e50fba55efcf3d7cc115fe6e3f6c98bf0e3210f1c6923427a1e1a3b214c1de92c467683f6a66727ba3a51684022be5cc2ffcb78457d2:341351589 |
| 1740 | sha512(\$salt.utf16le(\$pass)) | bae3a3358b3459c761a3ed40d34022f0609a02d90ad7724610b16147e58ece00cd849a0bd5cfa92ee5eb5687075b4e754324dfa70deca6993a85b2ca865bc8:1237015423 |
| 1750 | HMAC-SHA512 (key = \$pass) | 94cb9e31137913665d8ea7b058e10be5f050cc356062a2c9679ed0ad6119648e7be620e9d4e1199220cd02b9efb2b1c78234fa1000c728f82bf9f14ed82c1976:1234 |
| 1760 | HMAC-SHA512 (key = \$salt) | 7cce966f5503e292a51381f238d071971ad5442488f40a9f8e379b3aaee2f33778e3e732fcc277bdc04f3d460eebf6f8cb77da32df25500c09160dd3bf7d2a6b:1234 |
| 1800 | sha512crypt \$6\$, SHA512 (Unix) ² | \$6\$2450745\$5ka2p8bFuSmoVT1tOyyuaREkKbCNqoDKzYjL9RaE8yMnPgH2XzFONDrUhgrcLwg78xs1w5pJiypEdFX/ |
| 2000 | STDOUT | n/a |
| 2100 | Domain Cached Credentials 2 (DCC2), MS Cache 2 | \$DCC2\$10240#tom#e4e938d12fe5974dc42a90120bd9c90f |
| 2400 | Cisco-PIX MD5 | dRRVnUmUHXOTt9nk |
| 2410 | Cisco-ASA MD5 | 02dMBMYkTdC5Ziyp:36 |
| 2500 | WPA/WPA2 ¹ | https://hashcat.net/misc/example_hashes/hashcat.hccapx [https://hashcat.net/misc/example_hashes/hashcat.hccapx] |
| 2501 | WPA/WPA2 PMK ¹⁴ | https://hashcat.net/misc/example_hashes/hashcat-pmk.hccapx [https://hashcat.net/misc/example_hashes/hashcat-pmk.hccapx] |
| 2600 | md5(md5(\$pass)) | a936af92b0ae20b1ff6c3347a72e5f8e |
| 3000 | LM | 299bd128c1101fd6 |
| 3100 | Oracle H: Type (Oracle 7+), DES(Oracle) | 7A963A529D2E3229:3682427524 |

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| Hash-Mode | Hash-Name | Example |
|-----------|--|---|
| 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] |
| 13722 | VeraCrypt PBKDF2-HMAC-SHA512 + AES-Twofish | 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] |
| 13721 | VeraCrypt PBKDF2-HMAC-SHA512 + Serpent | https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent_13721.vc] |
| 13722 | VeraCrypt PBKDF2-HMAC-SHA512 + 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] |
| 13723 | VeraCrypt PBKDF2-HMAC-SHA512 + Serpent-Twofish-AES | https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13723.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_serpent-twofish-aes_13723.vc] |
| 13721 | VeraCrypt PBKDF2-HMAC-SHA512 + Twofish | https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha512_twofish_13721.vc] |
| 13722 | VeraCrypt PBKDF2-HMAC-SHA512 + Twofish-Serpent | 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] |
| 13731 | VeraCrypt PBKDF2-HMAC-Whirlpool + AES | https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_aes_13731.vc] |
| 13732 | VeraCrypt PBKDF2-HMAC-Whirlpool + AES-Twofish | 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] |
| 13731 | VeraCrypt PBKDF2-HMAC-Whirlpool + Serpent | https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_serpent_13731.vc] |
| 13732 | VeraCrypt PBKDF2-HMAC-Whirlpool + Serpent-AES | 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] |
| 13733 | VeraCrypt PBKDF2-HMAC-Whirlpool + Serpent-Twofish-AES | 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] |
| 13731 | VeraCrypt PBKDF2-HMAC-Whirlpool + Twofish | https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish_13731.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish_13731.vc] |
| 13732 | VeraCrypt PBKDF2-HMAC-Whirlpool + Twofish-Serpent | https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish-serpent_13732.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_whirlpool_twofish-serpent_13732.vc] |
| 13741 | VeraCrypt PBKDF2-HMAC-RIPEMD160 + boot-mode + AES | https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes_boot.vc] |
| 13742 | VeraCrypt PBKDF2-HMAC-RIPEMD160 + boot-mode + AES-Twofish | 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] |
| 13743 | VeraCrypt PBKDF2-HMAC-RIPEMD160 + boot-mode + AES-Twofish-Serpent | https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish-serpent_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_ripemd160_aes-twofish-serpent_boot.vc] |
| 13761 | VeraCrypt PBKDF2-HMAC-SHA256 + boot-mode + Twofish | https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_twofish_boot.vc] |
| 13762 | VeraCrypt PBKDF2-HMAC-SHA256 + boot-mode + Serpent-AES | https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-aes_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-aes_boot.vc] |
| 13763 | VeraCrypt PBKDF2-HMAC-SHA256 + boot-mode + Serpent-Twofish-AES | https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_boot.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_serpent-twofish-aes_boot.vc] |
| 13761 | VeraCrypt PBKDF2-HMAC-SHA256 + boot-mode + PIM + AES ¹⁶ | https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boot_pim500.vc [https://hashcat.net/misc/example_hashes/vc/hashcat_sha256_aes_boot_pim500.vc] |
| 13771* | VeraCrypt Streebog-512 + XTS 512 bit | TBD |
| 13772* | VeraCrypt Streebog-512 + XTS 1024 bit | TBD |
| 13773* | VeraCrypt Streebog-512 + XTS 1536 bit | TBD |
| 13800 | Windows Phone 8+ PIN/password | 95fc4680bcd2a5f25de3c580cbebadbbf256c1f0ff2e9329c58e36f8b914c11f:4471347156480581513210137061422464818088437334031753080747625028271635402815635172140161077854 |
| 13900 | OpenCart | 6e36dcfc6151272c797165fce21e68e7c7737e40:472433673 |
| 14000 | DES (PT = \$salt, key = \$pass) ⁸ | a28bc61d44bb815c:1172075784504605 |
| 14100 | 3DES (PT = \$salt, key = \$pass) ⁹ | 37387ff8d8dfe15:8152001061460743 |
| 14400 | sha1(CX) | fd9149fb3ae37085dc6ed1314449f449fbf77aba:87740665218240877702 |
| 14600 | LUKS ¹⁰ | https://hashcat.net/misc/example_hashes/hashcat_luks_testfiles.7z [https://hashcat.net/misc/example_hashes/hashcat_luks_testfiles.7z] |
| 14700 | iTunes backup < 10.0 ¹¹ | \$itunes_backup\$*9*b8c3fa970239b22ac199b622293fe4237b9d16e74bad2c3c3568cd1bd3c471615a6c4f867265642*10000*4542263740587424862267232255853830404566** |
| 14800 | iTunes backup >= 10.0 ¹¹ | \$itunes_backup\$*10*b715f516ff8e64442c478c2d9abb046fc6979ab079007d3dbcef3d8d4217f4c3db01362d88fa68*10000*23533637840736082643373772324886300850*10000000*425b4 |
| 14900 | Skip32 (PT = \$salt, key = \$pass) ¹² | c9350366:44630464 |
| 15000 | FileZilla Server >= 0.9.55 | 632c4952b8d9adb2c0076c13b57f0c934c80bdc14fc1b4c341c2e0a8fd97c4528729c7bd7ed1268016fc44c3c222445ebb880eca9a6638ea5df74696883a2978:06085163111480502664040724070f |
| 15100 | Juniper/NetBSD sha1crypt | \$sha1\$15100\$jjJdkz0E\$E8C7RQAD3NetbSDz7puNAY.5Y2jr |
| 15200 | Blockchain, My Wallet, V2 | \$blockchain\$*2\$5000\$288\$06063152445005516247820607861028813cfd6cc5793dc0c7a82dcd604c5c3e8d91bea9531e628c2027c56328380c87356f86ae88968f179c366da9f0f11b09492cea- |
| 15300 | DPAPI master key file version 1 + local context | \$DPAPImk\$*1*1*S-15-21-466364039-425773974-453930460-1925*des\$*sha1*24000*b038489dee5ad04e3c3ab4d957258b5*208*cb9b5b7d96a0d2a00305ca403d3fd9c47c561e35b4b2cf3aetf |
| 15400 | ChaCha20 | \$chacha20\$*0400000000000003*9*020000000000001*4a4b4c4d4e4f5051*676e31b5ad612c2b |
| 15500 | JKS Java Key Store Private Keys (SHA1) | \$jksprivk\$*5AA3A3C3BD7571727E1725FB09953EF3BEDBD9*0867403720562514024857047678064085141322*81*C3*50DDDD9F523430367905C9DE31FB1*test |
| 15600 | Ethereum Wallet, PBKDF2-HMAC-SHA256 | \$ethereum\$*262144*3238383137313130353438343737383736323437353437383831373034343735*06eae7ee0a4b9e8abc02c9990e3730827396e8531558ed15bb733fa12a44ce1*e6d5891c |
| 15700 | Ethereum Wallet, SCRYPT | \$ethereum\$*262144*1*8*343638373733838313035343736303637353530323430373235343034363130*8b58d9d15f579faba1cd13dd372faeb51718e7f70735de96f0bcb2ef4fb90278*8de566t |
| 15900 | DPAPI master key file version 2 + Active Directory domain context | \$DPAPImk\$*2*2*S-15-21-423929668-478423897-489523715-1834*aes256*sha512*8000*740866e4105c77f800f02d367dd96699*288*ebc2907e16245dfe6c902ad4be70a079e62204c8a9474984 |
| 16000 | Tripcode | pfaRCwDe0U |
| 16100 | TACACS+ | \$tacacs-plus\$0\$5fde8e68\$4e13e8fb33df\$006 |
| 16200 | Apple Secure Notes | \$ASNS*1*20000*80771171105233481004850004085037*d04b17af7f6b184346aad3efef8ebec0987ee73418291a41 |
| 16300 | Ethereum Pre-Sale Wallet, PBKDF2-HMAC-SHA256 | \$ethereum\$*w9a4a8e49deac2d62206bf9bf7d2aaea7eb06c1a3783c1ac056cc599a569793c0ecc40e6a0c242dee2812f06b644d70f43331b1fa2c4bd6cbb9f6d2d5b443235bdb4c1ffb222084c9 |
| 16400 | CRAM-MD5 Dovecot | {CRAM-MD5}5389b33b9725e5657cb631dc50017f1535ce4e2a19c1414009126506fc4327d0d |

| Hash-Mode | Hash-Name | Example |
|-----------|---|---|
| 16500 | JWT (JSON Web Token) | eyJhbGciOiJIUzI1NiJ9.eyJlZiNDNDM2MzQyMCI6NTc0ODc1NDd9.f1nXZ3V_Hrr6ee-AFCTLaHRnrkiMio2t3JqWl32guY |
| 16600 | Electrum Wallet (Salt-Type 1-3) | \$electrum\$1*44358283104603165383613672586868*c43a6632d9f59364f74c395a03d8c2ea |
| 16700 | FileVault 2 | \$fvdcs\$1\$16\$84286044060108438487434858037513\$20000\$f1620ab93192112f0a23eea89b5d4df065661f974b704191 |
| 16800 | WPA-PMKID-PBKDF2 ¹ | 2582a8281b9d4308d6f5731d0e61c61*4604ba734d4e*89acf0e761f4*ed487162465a774bfb06eb603a39f3a |
| 16801 | WPA-PMKID-PMK ¹⁵ | 2582a8281b9d4308d6f5731d0e61c61*4604ba734d4e*89acf0e761f4 |
| 16900 | Ansible Vault | \$ansible\$0*0*6b761adcf6aeb0cc0bf197d3d4a4a7d3f1682e4b169cae8fa6b459b3214ed41e*426d313c5809d4a80a4b9bc7d4823070*d8bad190c7fbc7c3cb1c60a27afb0ff59d6fb73178681c7454 |
| 17200 | PKZIP (Compressed) * | \$pkzip2\$1*1*2*0*e3*1c5*eda7a8de*0*28*0*e3*eda7*5096*a9cf14e951c8fb3031a6f903e5f4e3211c8fcd4671547bf7f7f6f682afbfc7475d83898985621a7af9bccd1349d1976500a68c48f630b7f22c |
| 17210 | PKZIP (Uncompressed) * | \$pkzip2\$1*1*2*0*d1*1c5*eda7a8de*0*28*0*d1*eda7*5096*idea673da43d9fc7e2be1a1f4f664269fceb6cb88723a97408ae1fe07f774d31d1442ea8485081e63f919851ca0b7588d5e3442317fff1 |
| 17220 | PKZIP (Compressed Multi-File) * | \$pkzip2\$3*1*1*0*8*24*a425*8827*d1730095cd829e245d04ebba6c5c20573d49d3bbeab6cb385b7fa8a28dcccc3098bfdd7*1*0*8*24*2a74*882a*51281ac874a60baedc375ca45888d29780e20c |
| 17225 | PKZIP (Mixed Multi-File) * | \$pkzip2\$3*1*1*0*0*24*3e2c*3ef8*0619e9d17ff3f994065b99b1fa8fae4f1c056ed9f9a4540919c109742dc32f79fc90ce0*1*0*8*24*431a*3f26*18e2461c0dbad89bd9cc763067a020c89b5e16195b1 |
| 17230 | PKZIP (Compressed Multi-File Checksum-Only) * | \$pkzip2\$8*1*1*0*8*24*a425*8827*3bd479d541019c2f32395046b8fba7e1dca218b9b5414975be49942c3536298e9cc939e*1*0*8*24*2a74*882a*537af57c30fd9fd4b3eefa9ce55b6bf3bfada23 |
| 17300 | SHA3-224 | 412ef78534ba6ab0e9b1607d3e9767a25c1ea9d5e83176b4c2817a6c |
| 17400 | SHA3-256 | d60cf6585da4e17224f58858970f0ed5ab042c3916b76b0b828e62aef636cbd |
| 17500 | SHA3-384 | 983ba28532cc6320d40f20fa485bcdcb38dbd666eca5f1e5aa279ff1c6244fe5f83cf4bbf05b95ff378dd2353617221 |
| 17600 | SHA3-512 | 7c2dcd1743735d4e069f3bda85b1b7e9172033dfdd8cd599ca094ef8570f3930c3f2c0b7afc8d6152ce4eaad6057a2ff22e71934b3a3dd0fb55a7fc84a53144e |
| 17700 | Keccak-224 | e1dfad9bafaeae6ef15f5bbb16cf4c26f09f5f1e7870581962fc84636 |
| 17800 | Keccak-256 | 203f88777f118bb4ee1226627b547808f38d90d3e106262b5de9ca943b57137b6 |
| 17900 | Keccak-384 | 5804b7ada5806ba79540100e9a7ef493654ff2a21d94d4f2ce4bf69abda5d94bf03701fe9525a15dfdc625bfbd769701 |
| 18000 | Keccak-512 | 2fbf5c9080f0a704de2e915ba8fdae6ab00bbc026b2c1c8fa07da1239381c6b7f4dfdc399bf9652500da723694ac719587dd0219cb30eabe61210a84de4c0b03 |
| 18100 | TOTP (HMAC-SHA1) | 597056:3600 |
| 18200 | Kerberos 5 AS-REP etype 23 | \$krb5asrep\$23\$user@domain.com:3e156ada591263b8aab0965f5aebd837\$007497cb51b6c8116d407a782ea0e1c5402b17db7afa6b05a6d30ed164a9933c754d720e279c6c573679bd27128fe |
| 18300 | Apple File System (APFS) | \$fvdcs\$2\$16\$858778104701476542047675521040224\$20000\$39602e86b7cea4a34f4ff69ffed706d68954ee474de1d2a9f6af2d24d172001ea484c1d4eaa237d |
| 18400 | Open Document Format (ODF) 1.2 (SHA-256, AES) * | \$odf\$1*1*100000*32*751854d8b90731ce0579f96baef0d4ac2bf2f546b31f1b6a9a5f66952a0bf4*16*2185a966155baa9e2fb597298f6ebecb*16*c18eaae34bcbb9e119be017fe5f8b52d*0*051e0 |
| 18500 | sha1(md5(md5(\$pass))) * | 888a2ffc3854fba0321110c5d0d434ad1aa2880 |
| 18600 | Open Document Format (ODF) 1.1 (SHA-1, Blowfish) | \$odf\$0*0*1024*16*bf753835f4ea15644b8a2df8e4b5be3d147b9576*8*ee371da34333b69d*16*a902eff54a4d782a26a899a31f97bef4*0*dac7e41fbc3a500d3ce152ed8876c4f38fb17d673ee2ac |
| 18700 | Java Object hashCode() * | 29937c08 |
| 18800 | Blockchain, My Wallet, Second Password (SHA256) * | YnM6WYERjfhxwepT7zV6odWu0zU1X4esYQb4bQ3KZ7bbZAYOtC1MDM3OTc1NjMyODA0ECcAAD3vFc= |
| 18900 | Android Backup * | \$ab\$5*0*10000*b8900e4885f9cad8f01ee1957a43bd633fea12491440514ae27aa83f2f5c006ce7e7fa0bce040add619919b4eb60608304b7d571a2ed87fd58c9ad6bc5f4c*7d254d93e16be9312f |
| 19000 | QNX /etc/shadow (MD5) * | @m@75f6f129f9c9e77b6b1b78f791ed764a@8741857532330050 |
| 19100 | QNX /etc/shadow (SHA256) * | @s@0b365cab7e17ee1e7e1a90078501cc1aa85888d6da34e2f5b04f5c614b882a93@5498317092471604 |
| 19200 | QNX /etc/shadow (SHA512) * | @S@715df9e94c097805dd1e13c6a40f331d02ce589765a2100ec7435e76b978d5efc364ce10870780622cee003c9951b092ec1020c924b124cff7e0fa1f73e3672@2257314490293159 |
| 19300 | sha1(\$salt1.\$pass.\$salt2) * | 630d2e918ab98e5fad9c61c0e4697654c4c16d73:18463812876898603420835420139870031762867:4449516425193605979760642927684590668549584534278112685644182848763890902 |
| 19500 | Ruby on Rails Restful-Authentication * | d7d5ea3e09391da412b653ae6c8d7431ec273ea2:238769868762:8962783556527653675 |
| 19600 | Kerberos 5 TGS-REP etype 17 (AES128-CTS-HMAC-SHA1-96) * | \$krb5tgs\$17\$user\$realm\$aes8434177efd09be58c2eff8\$90b4ce5b266821adc26c64f71958a475cf9348fce65096190be04f8430c4e0d554c86dd7ad29c275f9e8f15d2dab4565a3d6e21e449dc2f88e |
| 19700 | Kerberos 5 TGS-REP etype 18 (AES256-CTS-HMAC-SHA1-96) * | \$krb5tgs\$18\$user\$realm\$8efd91bb01cc69dd07e46009\$7352410d6aafdf72c64972a66058b02aa1c28ac580ba41137d5a170467f06f17faf5fb3f95ec4fad74821fdc7e63a3195573f45f962f86942ct |
| 19800 | Kerberos 5, etype 17, Pre-Auth * | \$krb5pa\$17\$hashcat\$HASHCATDOMAIN.COM\$a17776abe5382336c58582f515843e029ecbf43706d177651b7b6cdb2713b17597ddb35b1c9c470c281589fd1d5cca125414d19e40e333 |
| 19900 | Kerberos 5, etype 18, Pre-Auth * | \$krb5pa\$18\$hashcat\$HASHCATDOMAIN.COM\$96c289009b05181bfd32062962740b1b1ce5f74eb12e0266cde74e81094661addab08c0c1a178882c91a0ed89ae4e0e68d2820b9cce69770 |
| 20011 | DiskCryptor SHA512 + XTS 512 bit (AES) * | 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 (Twofish) * | https://hashcat.net/misc/example_hashes/dc/hashcat_twofish.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_twofish.dc] |
| 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_serpent.dc] |
| 20012 | DiskCryptor SHA512 + XTS 1024 bit (AES-Twofish) * | https://hashcat.net/misc/example_hashes/dc/hashcat_aes_twofish.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_aes_twofish.dc] |
| 20012 | DiskCryptor SHA512 + XTS 1024 bit (Twofish-Serpent) * | https://hashcat.net/misc/example_hashes/dc/hashcat_twofish_serpent.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_twofish_serpent.dc] |
| 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/hashcat_serpent_aes.dc] |
| 20013 | DiskCryptor SHA512 + XTS 1536 bit (AES-Twofish-Serpent) * | https://hashcat.net/misc/example_hashes/dc/hashcat_aes_twofish_serpent.dc [https://hashcat.net/misc/example_hashes/dc/hashcat_aes_twofish_serpent.dc] |
| 20200 | Python passlib pbkdf2-sha512 * | \$pbkdf2-sha512\$25000\$LyWE0HrP2R\$ZC\$IDGFMKQ\$1vc5Ohk2mCS9b6akqsEfgbe4l74SF8XjH.SljXf3dMLHdY1GK9ojcCKts6/asR4aPqBmk74nCddU3tvSCJvw |
| 20300 | Python passlib pbkdf2-sha256 * | \$pbkdf2-sha256\$29000\$X9h7j/Ge8x6DMEao1VqrdQ\$kra3R1wEnY8mPdDWOpTqOTINaAmZVRMcYd8u5OBQP9A |
| 20400 | Python passlib pbkdf2-sha1 * | \$pbkdf2\$131000\$5WYthYixPgFQ2j3buXcg\$8Kdr.QQE0aZIXNOrru36U_6Po |
| 20500 | PKZIP Master Key * | f1eff5c0368d10311dcfc419 |
| 20510 | PKZIP Master Key (6 byte optimization) ¹⁷ * | f1eff5c0368d10311dcfc419 |
| 20600 | Oracle Transportation Management (SHA256) * | otm_sha256:1000:1234567890:S5Q9Kc0ETy6ZPyQU+JYY60oFJaJuZZaSinggmzU8PC+= |
| 20710 | sha256(sha256(\$pass).\$salt) | bfede293ecf6539211a7305ea218b9f3f608953130405cda9eaba6fb6250f824:7218532375810603 |
| 20711* | AuthMe sha256 | \$SHA\$7218532375810603\$bfede293ecf6539211a7305ea218b9f3f608953130405cda9eaba6fb6250f824 |
| 20800 | sha256(md5(\$pass)) * | 74ee1fae245edd6f27bf36efc3604942479fcee6badab5dc5c0b538c19e6b0f1 |
| 20900 | md5(sha1(\$pass).md5(\$pass).sha1(\$pass)) * | 100b3a4fc1dc8d60d9fb40688d8b740a |

```
example hashes [hashcat wiki]
```

- 1 In beta or not yet released
- 2 Password: "hashcat!"
- 3 Rounds=[# of iterations] is **optional** here, after signature, e.g. \$5\$rounds=5000
- 4 As in ² but the number of rounds **must** be specified
- 5 The hash used here is **not** 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 "[pall.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
- 6 You can consider the second part as a "salt". If it is equal to 00000000, the CRC32 code will be considered as "not salted"
- 7 The raw sha256 output is used for base64() encoding (not the hexadecimal output)
- 8 The format is hash:salt:id
- 9 Password: "hashcat1"
- 10 Password: "hashcat1hashcat1hashcat1"
- 11 This file actually contains several examples of the different hash+cipher combinations. The password is stored in the pw file.
- 12 You can use iTunes_backup2hashcat [https://github.com/philsmd/iTunes_backup2hashcat/] to extract the hashes from the Manifest.plist file
- 13 Password: "hashcat!!!!". Min/max password length is exactly 10 characters/bytes.
- 14 You can use AxCuTe by FistOurs [https://github.com/FistOurs/AxCuTe] to retrieve the hashes.
- 15 Password: a288fc0caaacda9a9f58633ff35e8992a01d9c10ba5e02efdf8cb5d730ce7bc
- 16 Password: 5b13d4babb3714ccc62c9f71864bc984efd6a55f237c7a87fc2151e1ca658a9d
- 17 PIM: 500
- 18 full password in output is hashcat, but input provided must be without the first 6 bytes (therefore just: t)

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

Legacy hash types

These hash types are only supported in `hashcat-legacy` or `oclHashcat`.

https://hashcat.net/wiki/doku.php?id=example_hashes

| Hash-Mode | Hash-Name | Example |
|-----------------|--|--|
| 3610 | md5(md5(\$salt)\$pass) ¹ | 7b57255a15958ef898543ea6cc3313bc:1234 |
| 3720 | md5(\$pass.md5(\$salt)) ¹ | 10ce488714fdbde9453670e0e4cbe99c:1234 |
| 3721 | WebEdition_CMS ¹ | fa01af9f0de5f377ae8befb03865178e:5678 |
| 4210 | md5(\$username.0.\$pass) ¹ | 09ea048c345ad336ebe38ae5b6c4de24:1234 |
| 4600 | sha1(sha1(sha1(\$pass))) ¹ | dc57f246485e62d99a5110afc9264b4ccbfcf3cc |

¹ Supported in [hashcat-legacy](#).

² Supported in [oclHashcat](#)

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 |

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