

# Genesis block

A **genesis block** is the first block of a block chain. Modern versions of Bitcoin number it as **block 0**, though very early versions counted it as block 1. The genesis block is almost always hardcoded into the software of the applications that utilize its block chain. It is a special case in that it does not reference a previous block, and for Bitcoin and almost all of its derivatives, it produces an unspendable subsidy.

## Main network genesis block

Here is a representation of the genesis block<sup>[1]</sup> as it appeared in a comment in an old version of Bitcoin (line 1613 (<http://sourceforge.net/p/bitcoin/code/133/tree/trunk/main.cpp#l1613>)). The first section defines exactly all of the variables necessary to recreate the block. The second section is the block in standard printblock format, which contains shortened versions of the data in the first section.

```
-----  
GetHash()      = 0x000000000019d6689c085ae165831e934ff763ae46a2a6c172b3f1b60a8ce26f  
hashMerkleRoot = 0x4a5e1e4baab89f3a32518a88c31bc87f618f76673e2cc77ab2127b7afdeda33b  
txNew.vin[0].scriptSig      = 486604799 4 0x736B6E616220726F662074756F6C69616220646E6F63657320666F206B6E69726  
txNew.vout[0].nValue        = 5000000000  
txNew.vout[0].scriptPubKey = 0x5F1DF16B2B704C8A578D0BBAF74D385CDE12C11EE50455F3C438EF4C3FBCF649B6DE611FEAE06  
block.nVersion = 1  
block.nTime     = 1231006505  
block.nBits     = 0x1d00ffff  
block.nNonce    = 2083236893  
  
CBlock(hash=000000000019d6, ver=1, hashPrevBlock=00000000000000, hashMerkleRoot=4a5e1e, nTime=1231006505, nB  
  CTransaction(hash=4a5e1e, ver=1, vin.size=1, vout.size=1, nLockTime=0)  
    CTxIn(COutPoint(000000, -1), coinbase 04ffff001d0104455468652054696d65732030332f4a616e2f3230303920436861  
    CTxOut(nValue=50.00000000, scriptPubKey=0x5F1DF16B2B704C8A578D0B)  
  vMerkleTree: 4a5e1e  
-----
```

## Hash

The hash of the genesis block,

**000000000019d6689c085ae165831e934ff763ae46a2a6c172b3f1b60a8ce26f**,<sup>[1]</sup> has two more leading hex zeroes than were required for an early block.

## Coinbase

The coinbase parameter (seen above in hex) contains, along with the normal data, the following text:<sup>[2]</sup>

The Times 03/Jan/2009 Chancellor on brink of second bailout for banks<sup>[1]</sup>

This was probably intended as proof that the block was created on or after January 3, 2009, as well as a comment on the instability caused by fractional-reserve banking. Additionally, it suggests that Satoshi Nakamoto may have lived in the United Kingdom.<sup>[3]</sup>

The detail "second bailout for banks" could also suggest that in a supposedly liberal and capitalist system, rescuing banks like that was a problem for Satoshi. The chosen topic could hint at bitcoin's purpose.

## Block reward

The first 50 BTC block reward went to address *1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa*,<sup>[1]</sup> though this reward can't be spent due to a quirk in the way that the genesis block is expressed in the code. It is not



## References

1. Block 0. Main chain. 2009-01-03. Hash  
000000000019d6689c085ae165831e934ff763ae46a2a6c172b3f1b60a8ce26f. Block explorer (<http://blockexplorer.com/block/000000000019d6689c085ae165831e934ff763ae46a2a6c172b3f1b60a8ce26f>)
2. Reuters' reference on The Financial Times article (archive.org cached copy) (<http://web.archive.org/web/20140309004338/http://uk.reuters.com/article/2009/01/03/idUKPTIP32510920090103>)
3. Davis, J. (2011). "The Crypto-Currency" (<http://www.newyorker.com/magazine/2011/10/10/the-crypto-currency>). *The New Yorker*. <http://www.newyorker.com/magazine/2011/10/10/the-crypto-currency>.
4. <http://bitcoin.stackexchange.com/questions/10009/why-can-t-the-genesis-block-coinbase-be-spent>
5. [https://www.reddit.com/r/Bitcoin/comments/1nc13r/the\\_first\\_50btc\\_block\\_reward\\_cant\\_be\\_spent\\_why/](https://www.reddit.com/r/Bitcoin/comments/1nc13r/the_first_50btc_block_reward_cant_be_spent_why/)
6. <https://github.com/bitcoin/bitcoin/blob/9546a977d354b2ec6cd8455538e68fe4ba343a44/src/main.cpp#L1668> - Genesis block transaction treated as a special case in the reference code

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