



Rift Protocol

The purpose of this document is to validate the 5GB block generated by the ILCOIN Blockchain Project on November 29th, 2019; setting a new record in the field of stable block sizes.

The ILCOIN Blockchain Project has produced a 5GB block. This achievement became possible when the project introduced the RIFT Protocol which allows for increasing the block size and maintaining high transaction speed. With these properties, RIFT is able to efficiently solve the scalability problem of blockchain networks, it also **increases the potential for the global adoption of Distributed Ledger Technology, and builds a technological base for the creation of economically efficient on-chain data storage.**

Technological Implementation:

The RIFT Protocol defines a second blockchain layer that is called “Mini-Blocks”. This new second blockchain layer has its own block number that points to the last mini-block and the parent block. Mined parent blocks include references to mini-blocks, and mini-blocks include references to transactions. However, mini-blocks are not mined but automatically generated, resulting in a separate block that reflects the same way fractals replicate. Therefore, RIFT is a unique multi-layer solution in the blockchain market.

As stated, RIFT possesses two chains (one is made up of the blocks, and the second one from the mini-blocks); **both of which are connected in the references defined above.** The harmony of these two layers involves a complete transformation of the blockchain, which is made possible by the RIFT Protocol. **The RIFT Protocol maintains and supports decentralization.** This is a remarkable accomplishment as the problem of scalability has been resolved with this new method of block asynchronization. **Thanks to this protocol, the scalability of the network is unlimited.**

The protection of the blockchain is still guaranteed by the Command Chain Protocol, a.k.a. “C2P”. **More details on the RIFT Protocol: [Rift Protocol Blue Print](#)**


Verification:

Anyone interested in verifying the 5GB block size generated by the ILCOIN Blockchain Project may observe the 5GB block in the new block explorer (ILCOIN Block Explorer). Here, it is also possible to examine the functioning of the above-mentioned RIFT Protocol.



The 5GB block size can be checked under the number of 310280 on the ILCOIN live network. **BlockHash:**

000000000000027b27a4df36d444336756ba14c71d2bbd6af91442166447dcdc

Block #310280

BlockHash 000000000000027b27a4df36d444336756ba14c71d2bbd6af91442166447dcdc 

Summary

Number Of Transactions	49567	Difficulty	786432
Height	310280 (Mainchain)	Bits	1a155540
Block Reward	2500 ILC	Size (bytes)	5056636994
Timestamp	Nov 29, 2019 2:59:46 AM	Version	536870912
Mined by		Nonce	1617504647
Merkle Root	 bb401df415a0530ced064032c9ef1...	Load %	
Previous Block	310279	Next Block	310281

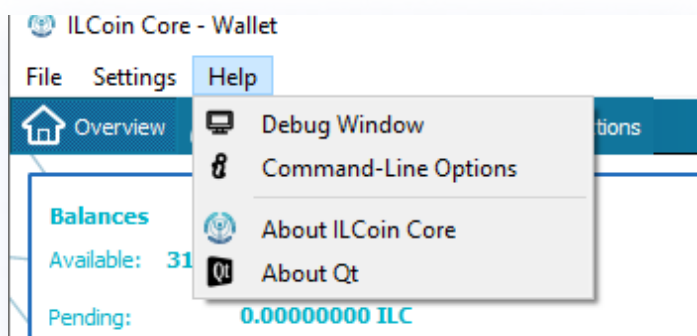
Transactions

Mini Blocks

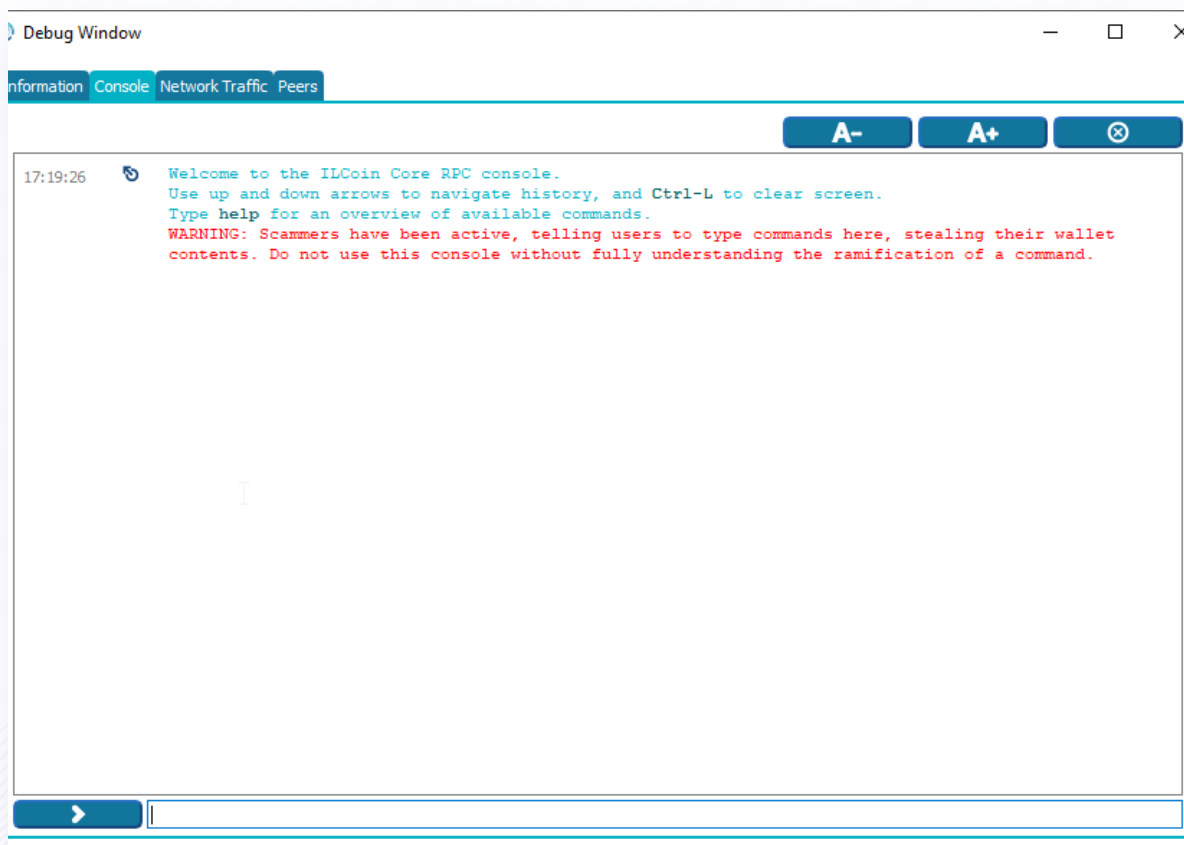
When examining the block, you can verify its size of 5056636994 bytes and the functioning of the RIFT Protocol can also be detected.

Furthermore, the open-source Qt-wallet for Windows, which is available to anyone, also verifies the existence of the 5GB block. In order to examine it, install the latest version of the ILCOIN QT-wallet, which is available on the following link: [ILCOIN Qt-wallet](#). Then, it will be necessary to wait for the whole blockchain to be synchronized. Doing so will allow anyone to double-check that the 5GB block actually exists. The following steps describe how to perform the verification:

1. In the installed and synchronized Qt-wallet application, open the **Debug Window** under the **Help** tab.

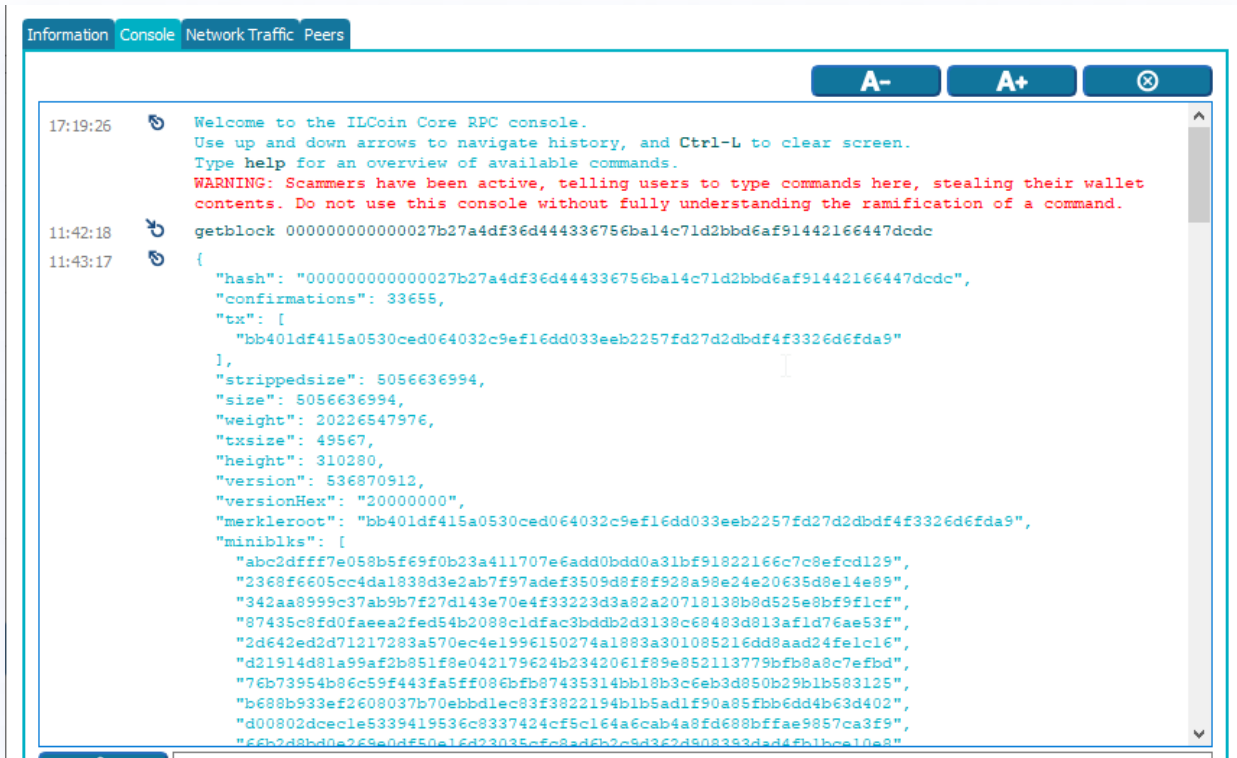


2. In the Debug Window, select the **Console** tab.



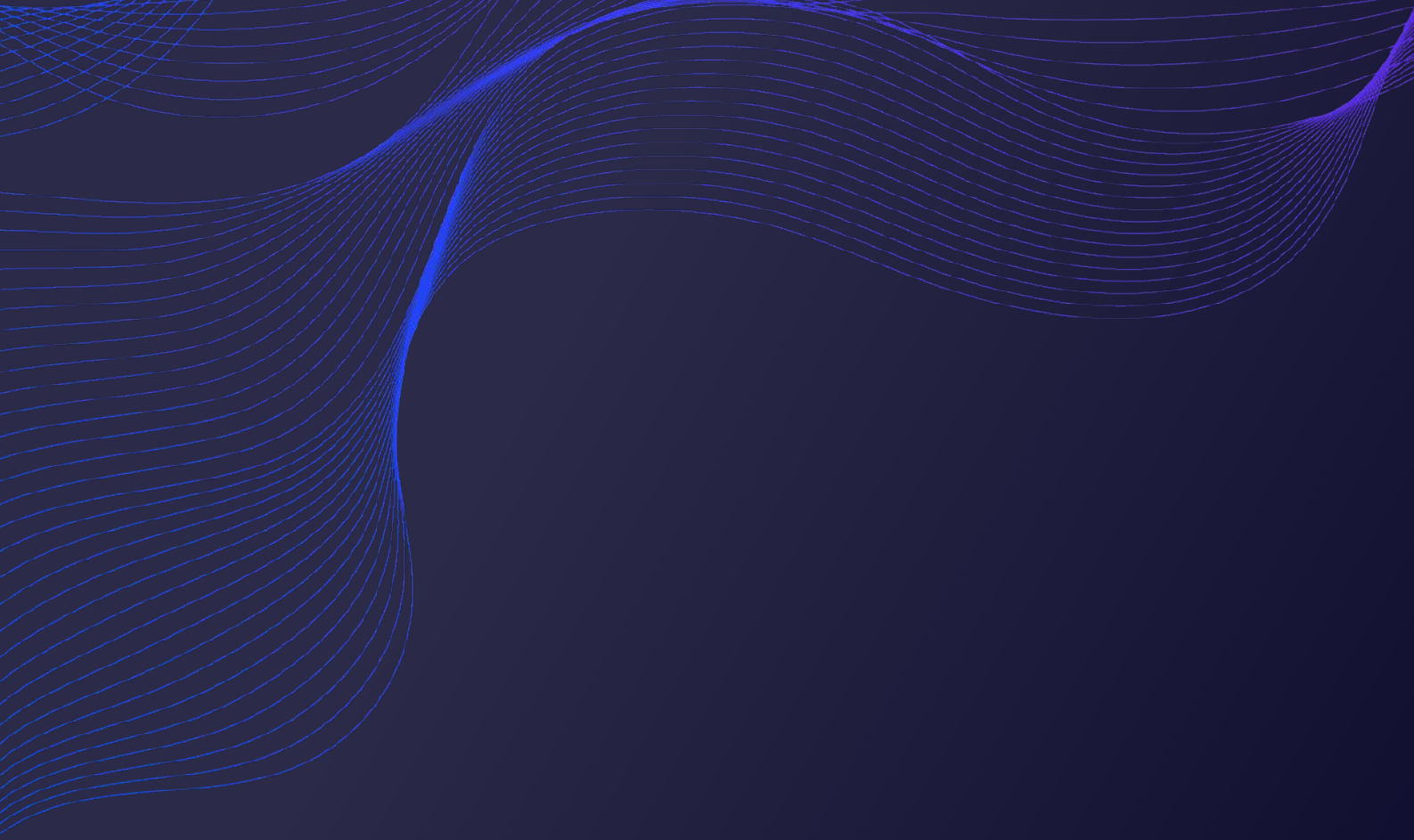
3. Then, with the “getblock” command, information can be retrieved for a given block by using the hash. (In this case:

“getblock 000000000000027b27a4df36d444336756ba14c71d2bbd6af91442166447dcdc”)



4. Now, information about the requested block will appear. As can be verified, the result clearly shows its size along with the proper functioning of the RIFT Protocol.

With this development, ILCOIN is the first project to solve the problem of both scalability and efficient on-chain storage while staying true to the key principles of the blockchain.



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