

Bitcoin Core: Implementation

(Both for linux and windows only 5th step differs)

[Do not write \$ sign while writing your command]

1)Bitcoin Source Code Download

\$ git clone <https://github.com/bitcoin/bitcoin.git>

2)Change the directory

\$ cd bitcoin

3)By default,the local copy will be synchronized with the most recent, which might be an unstable or beta version of bitcoin . Select a specific version by checking out a release tag(which does not have rc)

\$ git tag

\$ git checkout v0.21.0 (at time of making of this video)

4)To check whether the desired version is selected or not

\$ git status

5)**Most Important Step-**

See all the prerequisites are installed, you start the build process by generating A set of build scripts using the following command-

For linux - \$ more doc/buid-unix.md

For windows - build.window.md (I have not much idea in case of windows so you yourself have to find the solution if there are some errors.)

6)Assuming the prerequisites are installed, you start the build process by generating a set of build scripts using the following command -

\$./autogen.sh

7)Next run the configure script to automatically discover all the necessary libraries and create a customized build script for your system.

\$./configure

If there are any missing libraries or errors, the configure command will terminate with an error. If an error occurs then again check for the prerequisites documentation and install all the prerequisites.(Step-5) To disable wallet use

```
$ ./configure --disable-wallet
```

8) To compile the source

```
$ make
```

This may take minutes to hours (depending on the CPU and available memory). If an error occurs, or the compilation process is interrupted, it can be resumed any time by typing make.

9) Next install all the executables on your system using the below command

```
$ sudo make install
```

10) The default installation of bitcoind puts it in /usr/local/bin/. We can confirm that coin Core is correctly installed by asking the system for the path of executables, as follows.

```
$ which bitcoind  
[/usr/local/bin/bitcoind]
```

```
$ which bitcoin-cli  
[/usr/local/bin/bitcoin-cli]
```

11) Configuring the Bitcoin Node

- a) Make a file under the bitcoin directory and make a bitcoin.conf file.
- b) Copy the below code in bitcoin.conf to run full node
datadir=/lotsofespace/bitcoin
txindex=1
rpcuser= code (Any name you want)
rpcpassword= qwerty123 (choose a strong password)

12) Now let's run the bitcoin core

```
$ bitcoind -printtoconsole
```

We can hit ctrl+C to interrupt the process once we are satisfied that it is loading correct settings

13) To run the Bitcoin Core in the background as process

```
$ bitcoind -daemon
```

14) Once done with the above command run to check whether it is working

```
$ bitcoin-cli getblockhash 1000
```