

Building on Bitcoin Core

PlebLab Edition

Presentation Link

=> <https://slugify.link/bob>

Install Guide

- Download Bitcoin Core:

<https://bitcoin.org/en/download>

- Windows Guide:

<https://bitcoin.org/en/full-node#windows-instructions>

- Mac OSX Guide:

<https://bitcoin.org/en/full-node#mac-os-x-instructions>

- Linux Guide:

<https://bitcoin.org/en/full-node#linux-instructions>

Configuring Bitcoin-Qt

- Windows Instructions:

Settings → Options → Open Config File

C:\Users\<you>\AppData\Roaming\Bitcoin\bitcoin.conf

- OSX Instructions:

Settings → Options → Open Config File

/users/<you>/Library/Application Support/Bitcoin/bitcoin.conf

- Linux Instructions:

Settings → Options → Open Config File

/home/<you>/.bitcoin/bitcoin.conf

Configuration

```
## Bitcoin Core Config
```

```
server = 1
```

```
chain = regtest
```

Create Wallet

- *File* → *Create Wallet*
- Avoid spaces or uppercase.
- Uncheck **Use Descriptor Wallet**

RPC Console

- *Window* → *Console*
- Select your wallet.
- Enter `getblockchaininfo`
into your console.

Mining Blocks

- `getnewaddress`
- `generatetoaddress 100 <address>`
- Profit!

Send a Payment

- Select Send tab.
- Enter Address into **Pay To:**
- Enter **Amount:**
- Select **Custom Fee:** **1000 satoshis**
- Click Send!

RPC Authentication

- Visit RPC Auth Generator:

<https://jlopp.github.io/bitcoin-core-rpc-auth-generator>

- Generate `rpcauth=<user:stuff>` string.
- Add string to *bitcoin.conf* file.
- Restart Bitcoin-Qt.

JSON-RPC Request

```
{
  host: 'http://127.0.0.1:18443/wallet/<wallet_name>'
  method: 'POST',
  headers: {
    'Authorization': 'Basic ' + toBase64('user' + ':' + 'pass'),
    'content-type': 'application/json'
  },
  body: String({
    jsonrpc: 1.0,
    id: randomId(),
    method: 'methodName',
    params: [ 'arg1', 'arg2' ... ]
  })
}
```

More Resources

- Standard RPC API Documentation
<https://developer.bitcoin.org/reference/rpc>
- Bitcoin Core Config Generator
<https://jlopp.github.io/bitcoin-core-config-generator>
- Programming Bitcoin by Jimmy Song
<https://github.com/jimmysong/programmingbitcoin>
- Bitcoin Programming Guide
<https://github.com/cmdruid/bitcoin-programming>