

👉 [Blockchain.info](https://blockchain.info)

👉 Bitcoin blockchain¹ info

👉 Popular Bitcoin wallet

👉 Offices in London & NYC

👉 Sjors Provoost


👉 Web Wallet Developer



👉 Commutes between
Utrecht and London


¹ The Bitcoin blockchain still has the most hash power behind it.





Wallet in Browser


 **BLOCKCHAIN**
wallet


1 BTC = €698.93 Ontdek ▾   Afmelden


 BEGINSCHERM

 **TRANSACTIES**




 BITCOINS KOPEN

 VEILIGHEIDSCENTRUM

 INSTELLINGEN





 FAQ

Be your own bank.®

 Verzenden  Ontvangen 

€4.92
0.00705345 BTC

Alle ▾ ALLE VERZONDEN ONTVANGEN OVERGEMAAKT

	November 30 @ 07:31 PM Verzonden	Naar: 1EoP6npuNTZe7A3n2EFJjuk Patat  Van: Dividends	€5.57
	September 21 @ 11:22 AM Ontvangen Gekocht via Coinify	Naar: Spending Coinify order #3687  Van: 148zAaxKgP3Q5zUGGDkRctc	€10.00

Wallet in NodeJS

Install

```
npm install blockchain/my-wallet-v3#v3.24.5
```

Load

```
Blockchain = require('blockchain-wallet-client')
```

Create a wallet

```
email = 'sjors+delft@blockchain.com'  
pwd = 'very_weak'
```

```
Blockchain.MyWallet.createNewWallet(  
    email,  
    pwd,  
    '',  
    'EUR',  
    'en',  
    console.log, // Success  
    console.error // Error  
)  
// 1822bb00-5c33-46a9-bbcb-b75de17fca66
```

Login

```
user_id = '1822bb00-5c33-46a9-bbcb-b75de17fca66'  
pwd = 'very_weak'  
Blockchain.MyWallet.login(  
    user_id,  
    pwd,  
    { twoFactor: null, sessionToken: null }, {}  
).then(MyWallet.wallet.fetchAccountInfo)
```

Get funding address

```
account = MyWallet.wallet.hdwallet.accounts[0]  
account.receiveAddress  
// '1ALfF8Ps8bkZT1qyf2TVa1Lu3P74wUfog2'
```

Show account balance

```
// Loads balance and recent transactions  
MyWallet.wallet.getHistory()  
account.balance  
// 113702 (in Satoshi = €0,70)
```

About wallets

```
{
  "user_id": "1822bb00-5c33-46a9-bbcb-b75de17fca66",
  "options": {
    "pbkdf2_iterations": 5000 // Password is hashed using PBKDF2
  },
  "seed_hex": "65b4cd78ba92d490466532a7939e5405",
  //          grant please funny inside coil else book play pole ostrich never arctic
  "address_labels": [{
    "index": 1, "label": "Zakgeld"
  }]
}
```

☞ encrypted in browser, stored on server

☞ we can't access your private keys, nor reset your password

Spend coins

```
p = new Blockchain.Payment()  
p  
  .to( '1AvPkgjx2RKFW6xeqKVoKjsmJMZWrrqs17w' )  
  .from(0)  
  .amount(50000) // In Satoshi = €0.35  
  .build()  
  .sign()  
  .publish()
```


Import private key

```
wallet = Blockchain.MyWallet.wallet  
pk = 'L3qqTb8FD1wWhfZjjyJSiwQZyp3oLbycBNB9So45bj4uAYrP5YmS'  
wallet.importLegacyAddress(pk, '')  
addr = wallet.keys[0].address;  
// 1AvPkgjx2RKFW6xeqKVoKjsmJMZWrrqs17w
```

Show balance:

```
addr.getBalance()  
// 50000 // In Satoshi = €0.35
```

Monitor address

```
op = MyWallet.ws.msgAddrSub(account.receiveAddress)
// ' {"op": "addr_sub", "addr": "1ALfF8Ps8bkZT1qyf2TVa1Lu3P74wUfog2"} '
MyWallet.ws.send(op)
```

WebSockets

☞ "a computer communications protocol, providing full-duplex communication channels over a single TCP connection." - [Wikipedia](#)

```
{
  "op": "utx",
  "x": {
    "hash": "f22525fd3fdbac441267b4f68f13fb8f1cabd6d0967a48844647b91e3f9ef8ea",
    "inputs": [{
      "prev_out": {
        "spent": true,
        "addr": "1Ea4SXJbd2z7NsZrS23i5rAd4v7LjuuJCE", // Sender wallet
        "value": 3040127, // 0.003 BTC
      },
    }],
    "out": [{
      "spent": false,
      "addr": "1ALfF8Ps8bkZT1qyf2TVa1Lu3P74wUfog2", // Our wallet
    }, {
      ... // Change
    }]
  }
}
```

Process websocket message

```
MyWallet.getSocketOnMessage = (msg) => {  
  obj = JSON.parse(msg)  
  if (obj.op === 'utx') {  
    if (obj.x.out.filter(  
      (output) => output.addr === account.receiveAddress  
    ).length) {  
      console.log('Coins received!')  
    }  
  }  
}
```

Buy Bitcoin with NodeJS

☞ Partner company handles the purchase

```
coinify = MyWallet.wallet.external.addCoinify()  
coinify.signup( 'NL', 'EUR' ).then(console.log)  
// user: . . . . ,  
// offlineToken: 'AkwyQ...'
```

☞ Partner account details stored in wallet

☞ Bitcoin goes straight to your wallet

👉 Ask quote and buy:

```
coini fy .getBuyQuote(10 * 100, 'EUR', 'BTC').then((quote) => {  
  console.log(quote.quoteAmount / 100000000, "BTC")  
  quote.buy('card').then((trade) =>  
    console.log(trade.address)  
    // Do some manual stuff with your creditcard  
  )  
})
```

👉 Monitor purchase address (web socket):

```
coini fy .monitorPayments()  
coini fy .trades[0].watchAddress().then(() => console.log('Bitcoin Received!'))
```

Sign a message

👉 Prove that you have the private key for an address:

```
addr = MyWallet.wallet.keys[0].address;  
// 1AvPkgjx2RKFW6xeqKVoKjsmJMZWrs17w  
msg = 'Hallo Delft'  
sig = MyWallet.wallet.keys[0].signMessage(msg)  
// 'H2yfcyYDoSj+siL4rvMmnHIvKUDH4GThFHYG1Qk28q79AhreibtQvmaH+5W6hRty+S1gQeFXbaKs04xjIsHRCOE='
```

👉 Verify the proof:

```
Blockchain.Helpers.verifyMessage( '1AvPkgjx2RKFW6xeqKVoKjsmJMZWrs17w', sig, msg )  
// true
```

Thank You Resources

➞ <https://github.com/blockchain/my-wallet-v3>

➞ <https://www.blockchain.com/careers/>

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