Blockchain: Desarrollo de Aplicaciones

Caso de Estudio: Contador

BCDA 2018

Versión: 2018-10-03

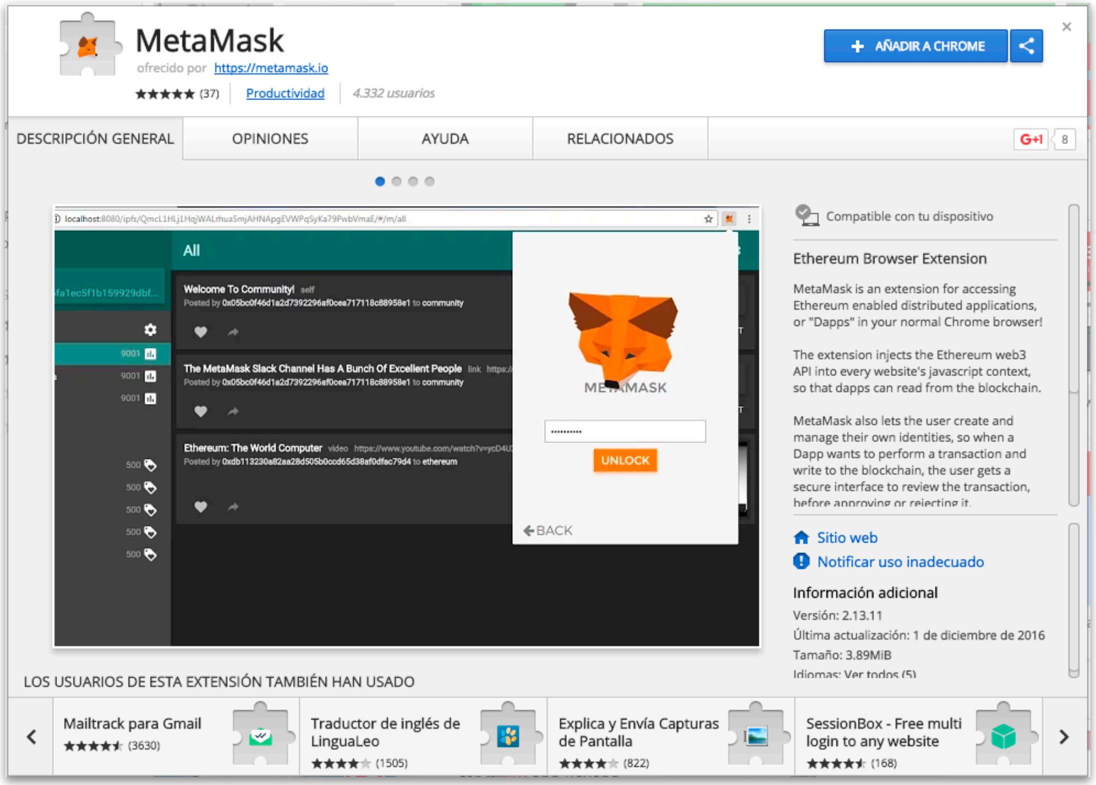
El Código del Contrato

```
pragma solidity ^0.4.25;

contract Contador {

    uint8 public valor = 0;

    event Tic(string msg, uint8 out);

    function incr() public {
        valor++;
        emit Tic("Actualizado", valor);
    }

    function() public {
        revert();
    }
}
```

¿Qué sabemos hacer?

- Instalar la extensión MetaMask en el navegador (Chrome, Firefox)
  - para que Remix se pueda conectarse a la red Ethereum que queramos.
- Usando Remix sabemos editar, compilar, desplegar y usar el contrato.
- Otras opciones:
  - Ethereum Wallet, Mist, ...

MetaMask



MetaMask

ofrecido por https://metamask.io

★★★★★ (37) | Productividad | 4.332 usuarios

localhost:8080/ipfs/QmcL1HLj1HqjWALrhuaSmjAHNApgEVWPqSyKa79PwbVmaE/#/m/all

Welcome To Community! self
Posted by 0x05bc0f46d1a2d7392296af0cea717118c88958e1 to community

The MetaMask Slack Channel Has A Bunch Of Excellent People link https:/

Posted by 0x05bc0f46d1a2d7392296af0cea717118c88958e1 to community

Ethereum: The World Computer video https://www.youtube.com/watch?v=ycD4U

Posted by 0xdb113230a82aa28d505b0ccd65d38af0dfac79d4 to ethereum

Compatible con tu dispositivo

Ethereum Browser Extension

MetaMask is an extension for accessing Ethereum enabled distributed applications, or "Dapps" in your normal Chrome browser!

The extension injects the Ethereum web3 API into every website's javascript context, so that dapps can read from the blockchain.

MetaMask also lets the user create and manage their own identities, so when a Dapp wants to perform a transaction and write to the blockchain, the user gets a secure interface to review the transaction, before approving or rejecting it.

Sitio web

Notificar uso inadecuado

Información adicional

Versión: 2.13.11

Última actualización: 1 de diciembre de 2016

Tamaño: 3.89MiB

Idiomas: Ver todos (5)

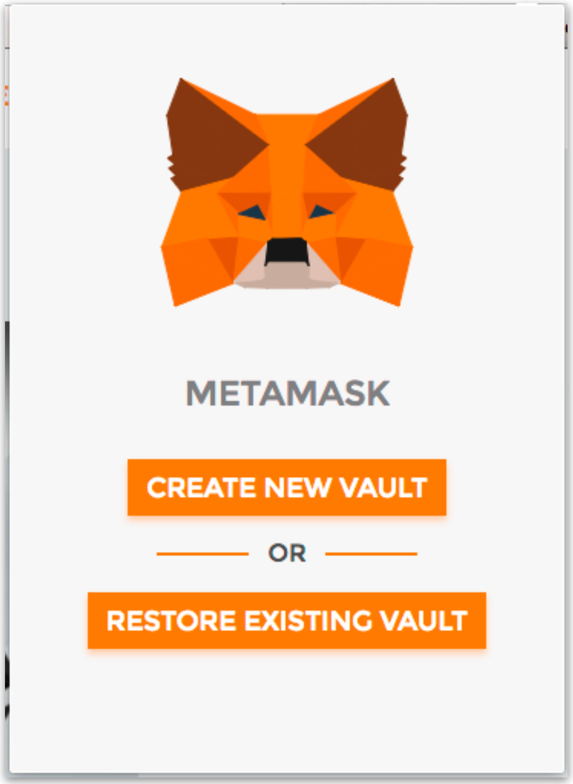
LOS USUARIOS DE ESTA EXTENSIÓN TAMBIÉN HAN USADO

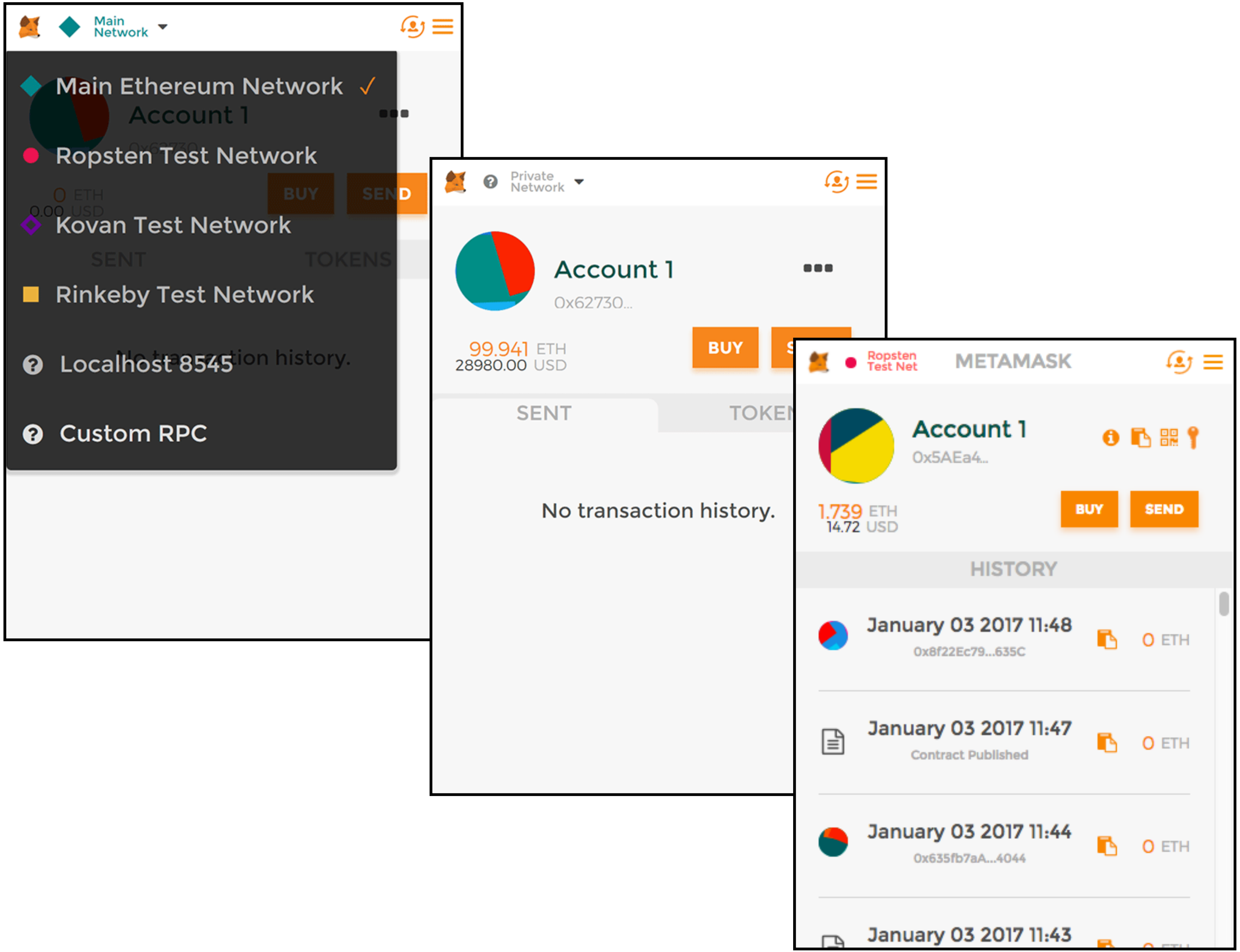
Mailtrack para Gmail ★★★★½ (3630)

Traductor de inglés de LinguaLeo ★★★★☆ (1505)

Explica y Envía Capturas de Pantalla ★★★★☆ (822)

SessionBox - Free multi login to any website ★★★★½ (168)





No transaction history.

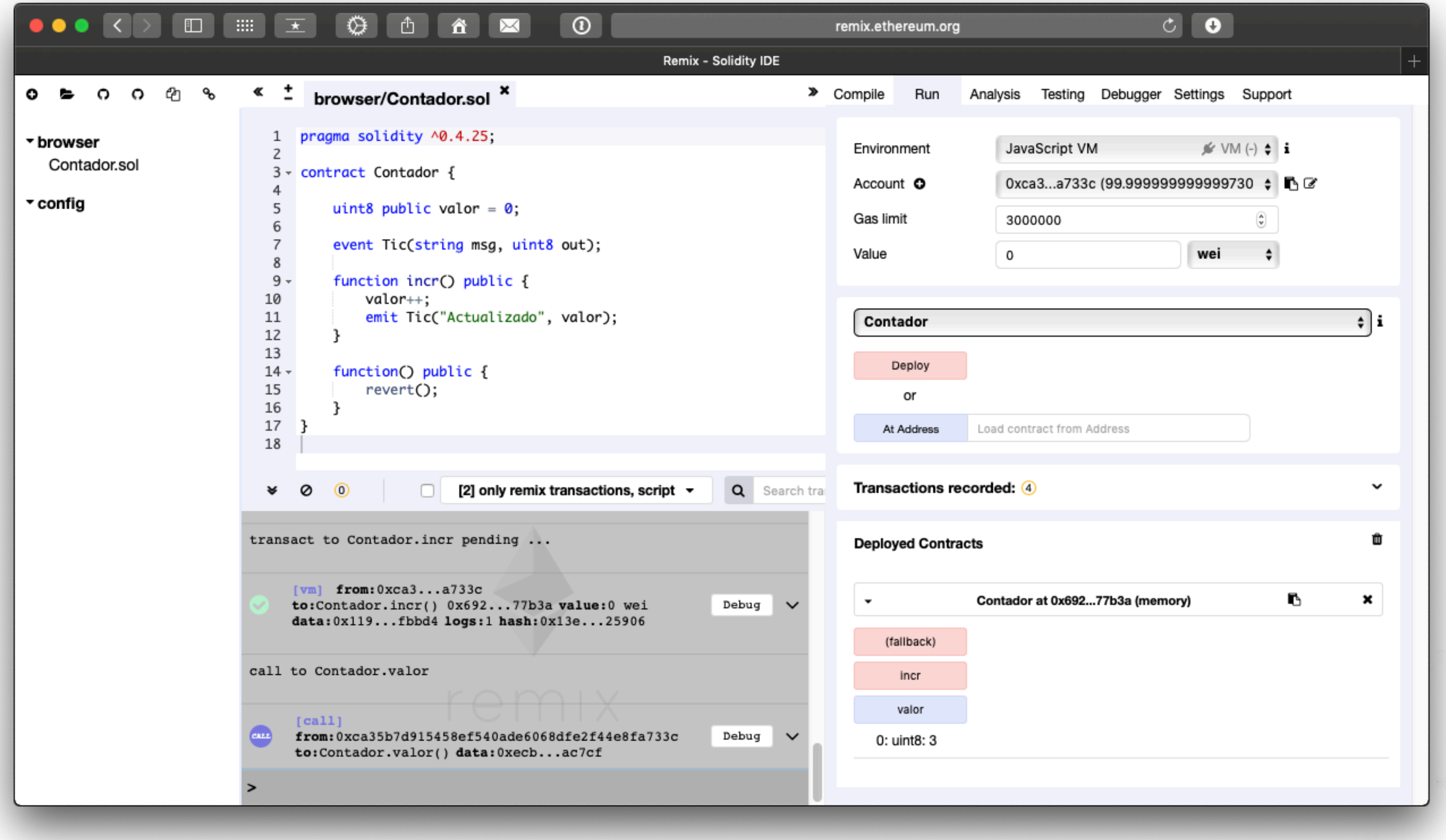
January 03 2017 11:48 0x8f22Ec79...635C 0 ETH

January 03 2017 11:47 Contract Published 0 ETH

January 03 2017 11:44 0x635fb7aA...4044 0 ETH

January 03 2017 11:43

Compilador online: Remix



```
pragma solidity ^0.4.25;

contract Contador {

    uint8 public valor = 0;

    event Tic(string msg, uint8 out);

    function incr() public {
        valor++;
        emit Tic("Actualizado", valor);
    }

    function() public {
        revert();
    }
}

```

Environment: JavaScript VM — VM (-)

Account: 0xca3...a733c (99.999999999999730

Gas limit: 3000000

Value: 0 wei

Contador

Deploy

or

At Address — Load contract from Address

Transactions recorded: 4

Deployed Contracts

Contador at 0x692...77b3a (memory)

(fallback)

incr

valor

0: uint8: 3

```
transact to Contador.incr pending ...

[vm]  from:0xca3...a733c
to:Contador.incr() 0x692...77b3a value:0 wei
data:0x119...fbbd4 logs:1 hash:0x13e...25906                    Debug

call to Contador.valor

[call]
from:0xca35b7d915458ef540ade6068dfe2f44e8fa733c
to:Contador.valor() data:0xecb...ac7cf                          Debug

>
```

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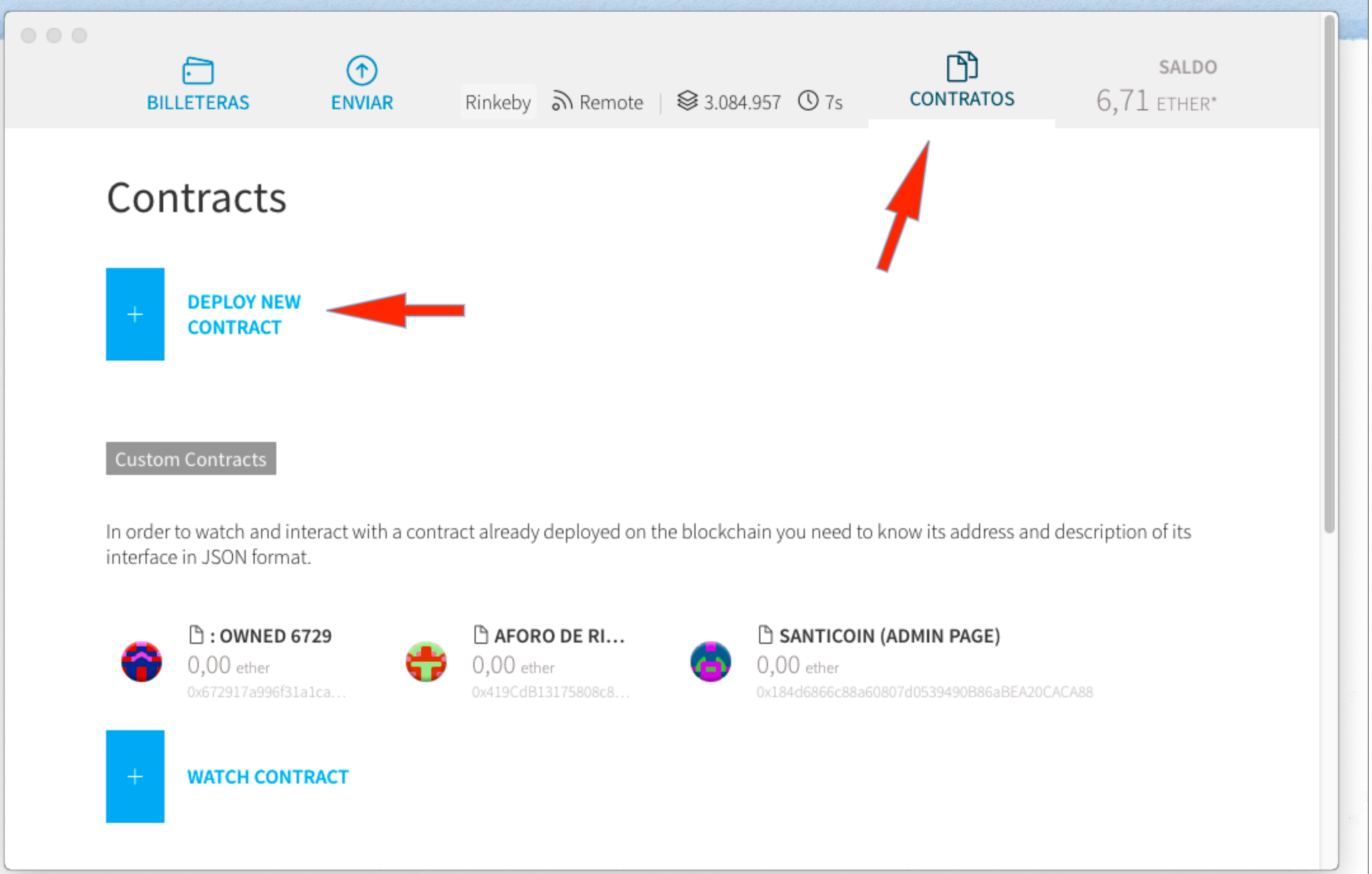
Ethereum Wallet



Contracts

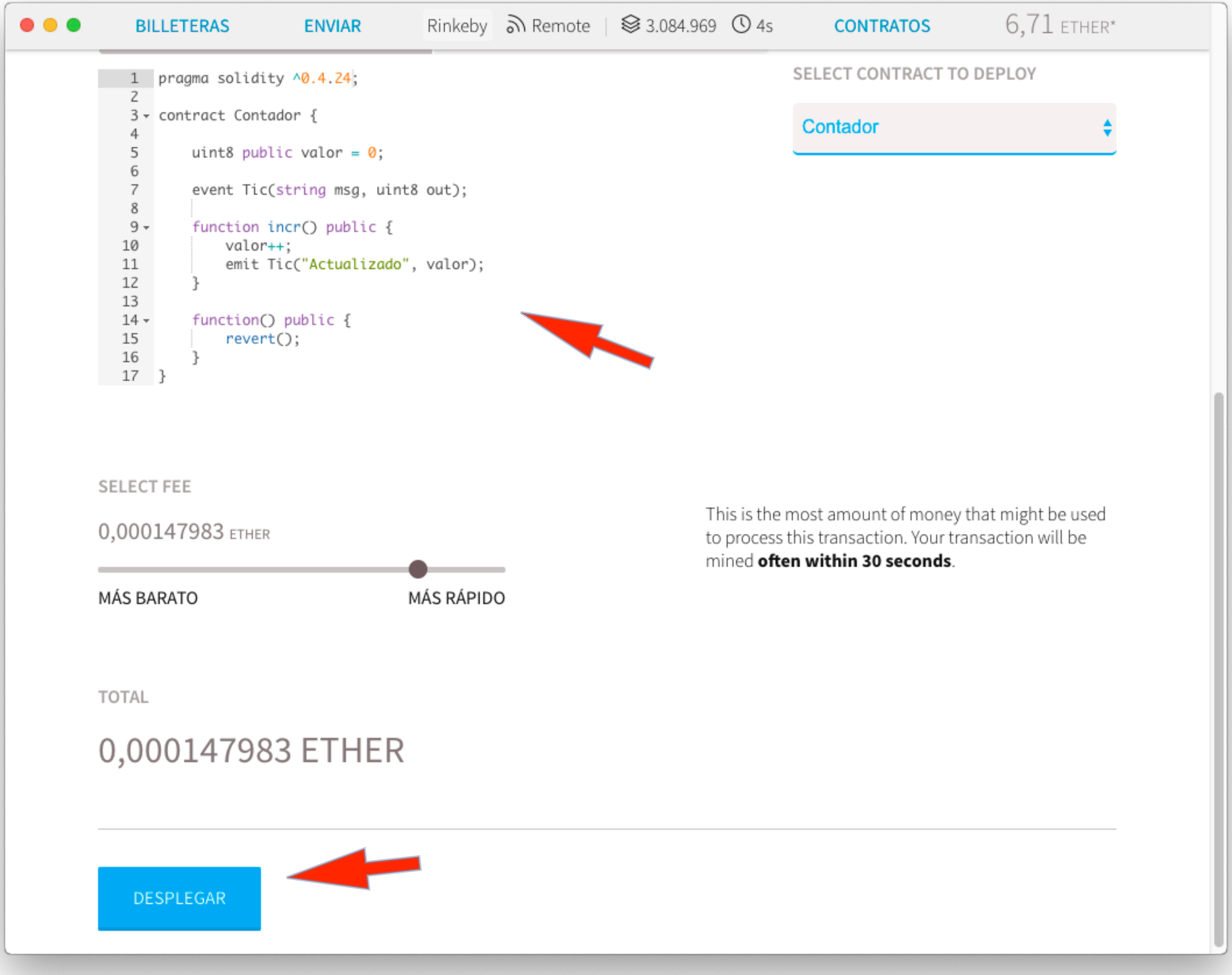
Custom Contracts

In order to watch and interact with a contract already deployed on the blockchain you need to know its address and description of its interface in JSON format.

: OWNED 6729
0,00 ether
0x672917a996f31a1ca...

AFORO DE RI...
0,00 ether
0x419CdB13175808c8...

SANTICOIN (ADMIN PAGE)
0,00 ether
0x184d6866c88a60807d0539490B86aBEA20CACA88



```
pragma solidity ^0.4.24;

contract Contador {

    uint8 public valor = 0;

    event Tic(string msg, uint8 out);

    function incr() public {
        valor++;
        emit Tic("Actualizado", valor);
    }

    function() public {
        revert();
    }
}
```

SELECT CONTRACT TO DEPLOY

Contador

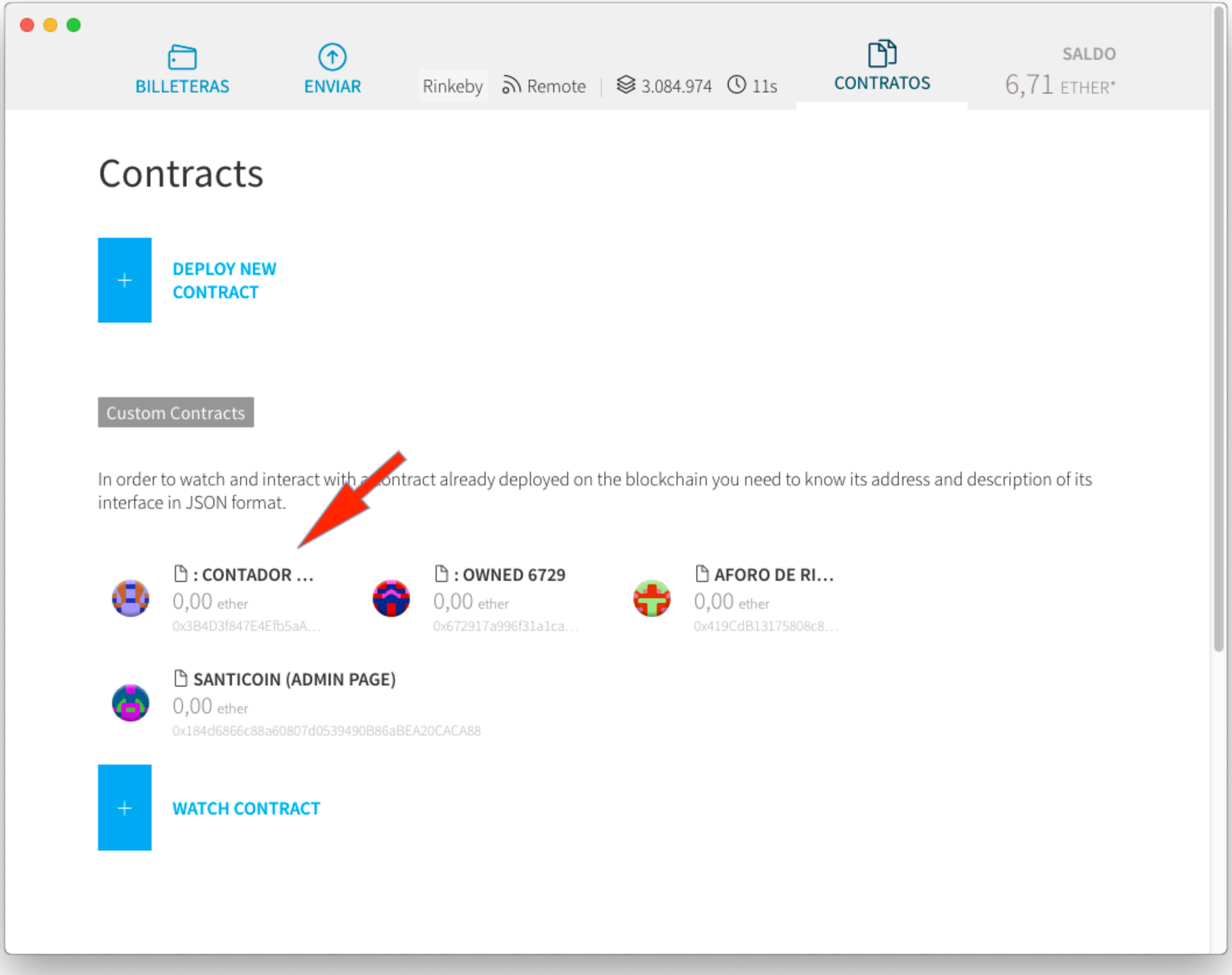
SELECT FEE

0,000147983 ETHER

This is the most amount of money that might be used to process this transaction. Your transaction will be mined **often within 30 seconds**.

TOTAL

0,000147983 ETHER



Contracts

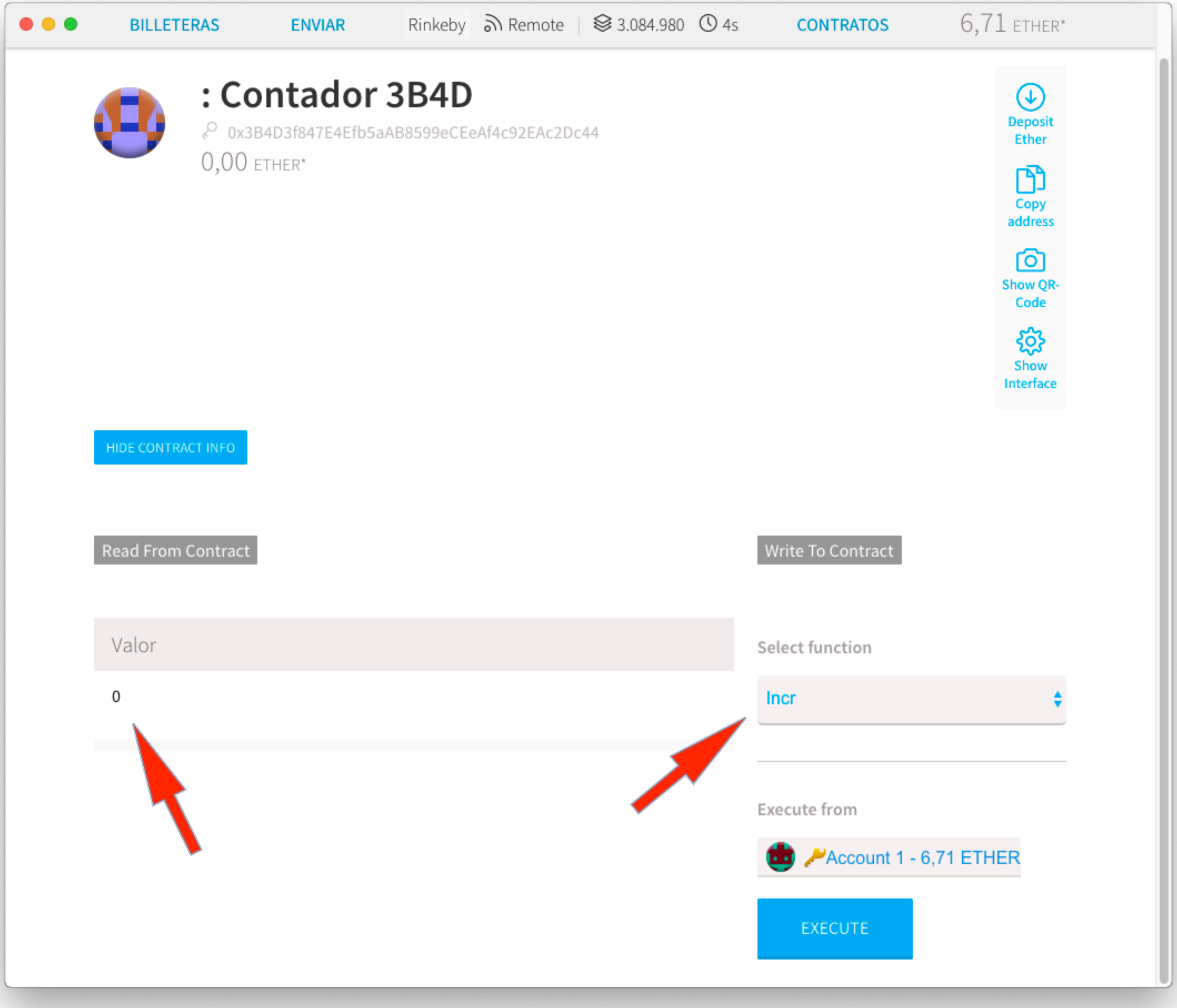
In order to watch and interact with a contract already deployed on the blockchain you need to know its address and description of its interface in JSON format.

: CONTADOR ...
0,00 ether
0x3B4D3f847E4Efb5aA...

: OWNED 6729
0,00 ether
0x672917a996f31a1ca...

AFORO DE RI...
0,00 ether
0x419CdB13175808c8...

SANTICOIN (ADMIN PAGE)
0,00 ether
0x184d6866c88a60807d0539490B86aBEA20CACA88



: Contador 3B4D

0x3B4D3f847E4Efb5aAB8599eCEeAf4c92EAc2Dc44

0,00 ETHER*

Read From Contract

Valor

0

Write To Contract

Select function

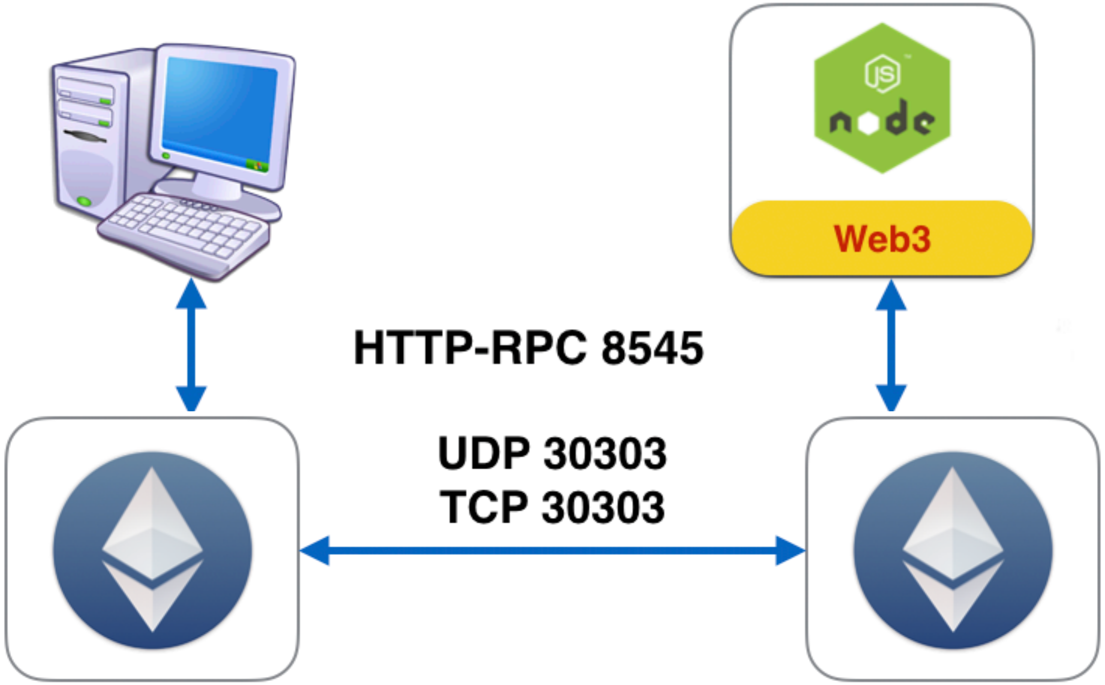
Incr

Execute from

Account 1 - 6,71 ETHER

Trabajar en los nodos

- El navegador ejecutando Remix, la wallet, etc... son programas externos a los nodos de la red Ethereum.
- Se conectan con un nodo de la red y le envían comandos.



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