



# **MATRIX WALLET**

## **MANUAL**

V 1.5

**MATRIX FOUNDATION**

2019.07.23

# Catalogue

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## 0. Foreword

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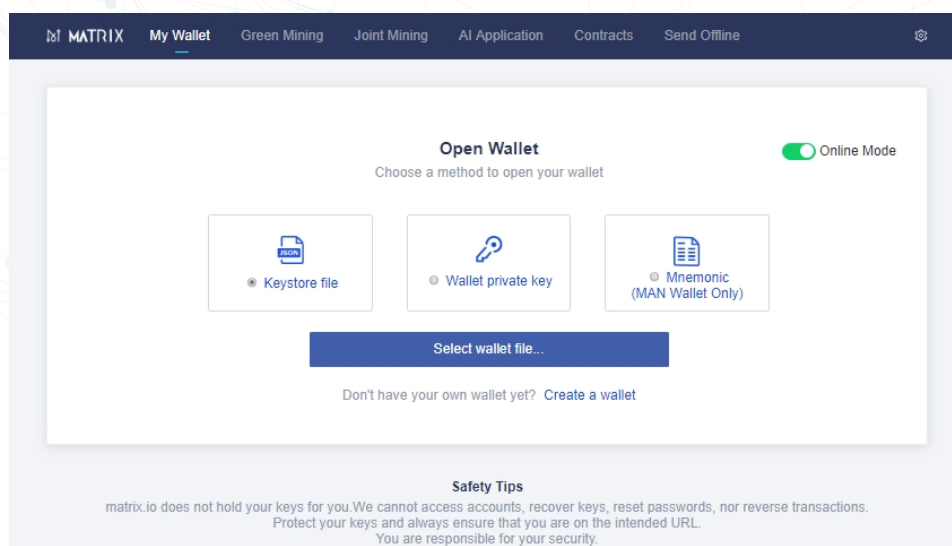
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# 1. Function Overview

The web wallet consists of the following parts:

- **My Wallet:** You can create a new wallet or open a wallet, then you can use all the functions.
- **Online/Offline Mode:** Online mode or offline mode can be selected, offline mode can better guarantee wallet safety.
- **Green Mining:** You can deposit for miners/validators masternodes and set up secondary key.
- **Joint Mining:** The creators create the mining pool and provide the mining equipment. Other participants only need to stake for mining and earn the mining rewards.
- **AI Application:** AI processing of pictures to support lung cancer diagnosis, pose recognition and object recognition.
- **Contracts:** You can deploy smart contracts on the MATRIX mainnet, such as issuing tokens.
- **Send Offline:** It supports to sign transactions when the network is disconnected. Signed information can also be sent to chain so that your private key or keystore will not be exposed to the network, improving assets security.
- **Settings:** Wallet Association (Sender/recipient pays gas fee), Address Conversion, Private Key Backup, Keystore Backup, etc.



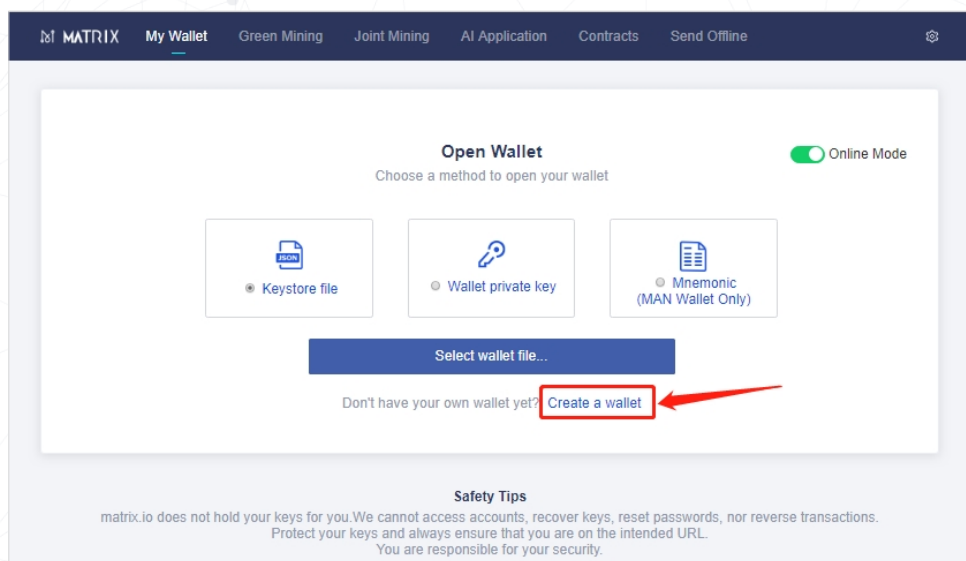


## 2. Creating a Wallet

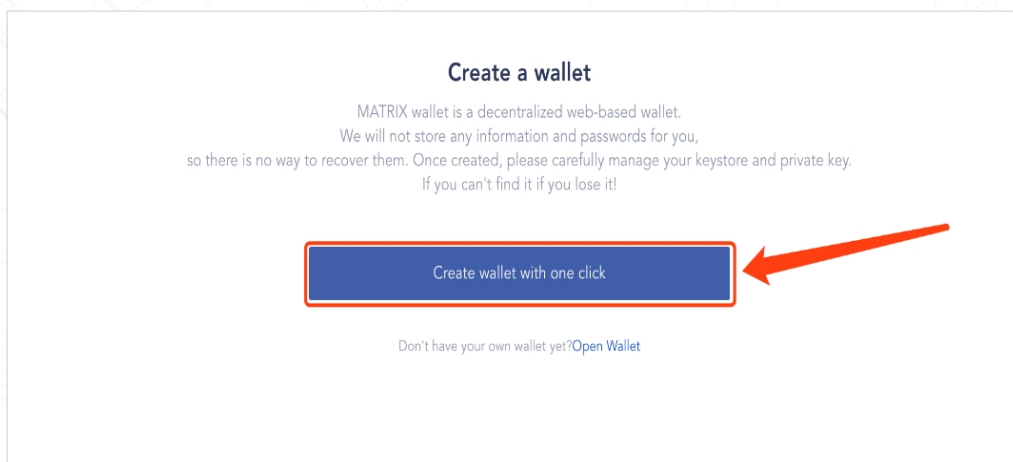
Matrix wallet supports saving wallets through Keystore, private key and mnemonic. When creating a wallet, you can choose a way to save it, and it also can be backed up after successful creation.

### Operation Process

#### 2.1 Go to [wallet.matrix.io](https://wallet.matrix.io), click 【Create a wallet】



#### 2.2 Click 【Create wallet with one click】

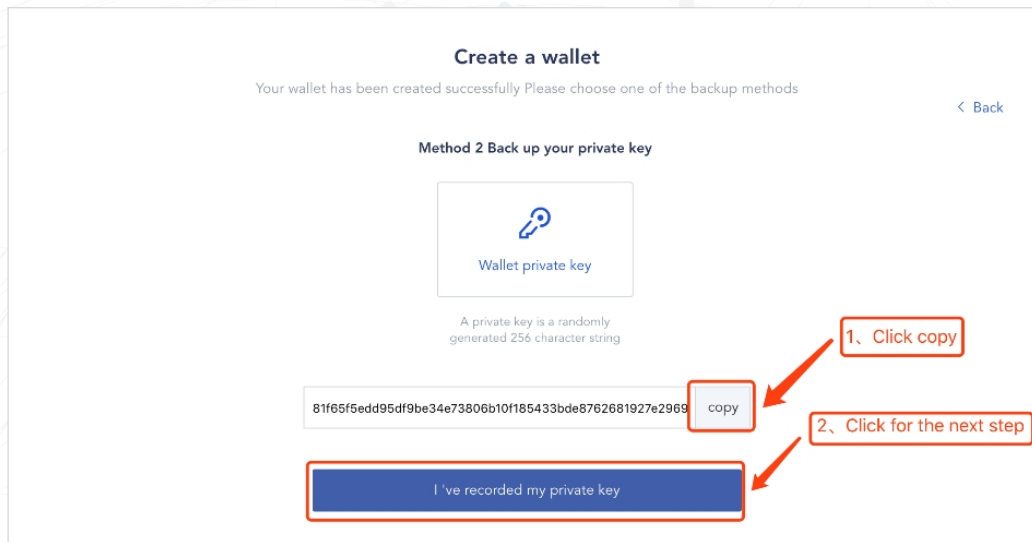


## 2.3 Please choose one of the backup methods.

Here's an example of backing up a private key.

Click **copy** to save private key

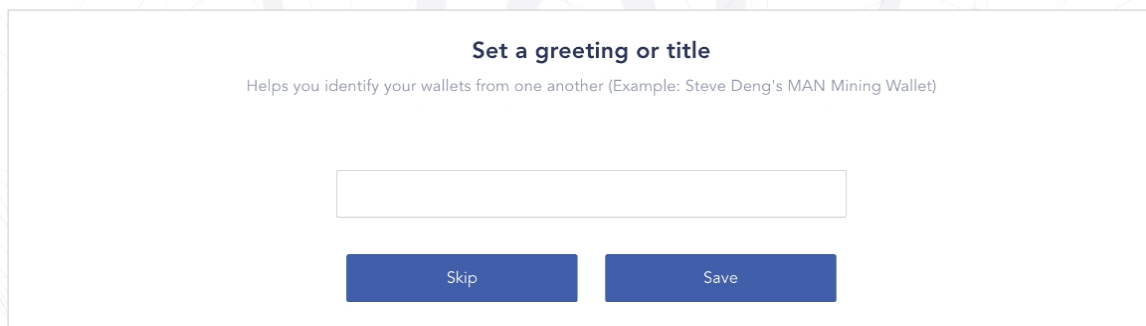
Then click **I've recorded my private key** to go next.



The screenshot shows the 'Create a wallet' screen with the subtitle 'Your wallet has been created successfully Please choose one of the backup methods'. A '< Back' link is in the top right. Under 'Method 2 Back up your private key', there is a 'Wallet private key' icon and a note: 'A private key is a randomly generated 256 character string'. Below this is a text field containing the private key: '81f65f5edd95df9be34e73806b10f185433bde8762681927e2969'. To the right of the text field is a 'copy' button. Below the text field is a blue button labeled 'I've recorded my private key'. Two red arrows with text boxes point to the 'copy' button and the 'I've recorded my private key' button. The first arrow points to the 'copy' button with the text '1. Click copy'. The second arrow points to the 'I've recorded my private key' button with the text '2. Click for the next step'.

## 2.4 Set a greeting or title.

It helps you identify your wallets from one another, or you can skip.



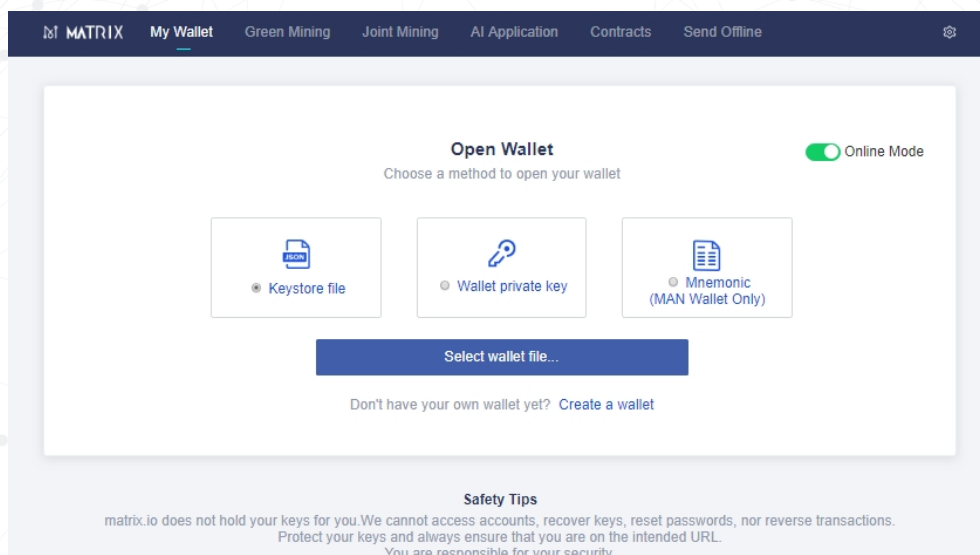
The screenshot shows the 'Set a greeting or title' screen with the subtitle 'Helps you identify your wallets from one another (Example: Steve Deng's MAN Mining Wallet)'. There is a text input field for the greeting or title. Below the input field are two blue buttons: 'Skip' and 'Save'.

**Congratulations to create Matrix wallet successfully.**

## 3. Opening a Wallet

### 3.1 Online Mode

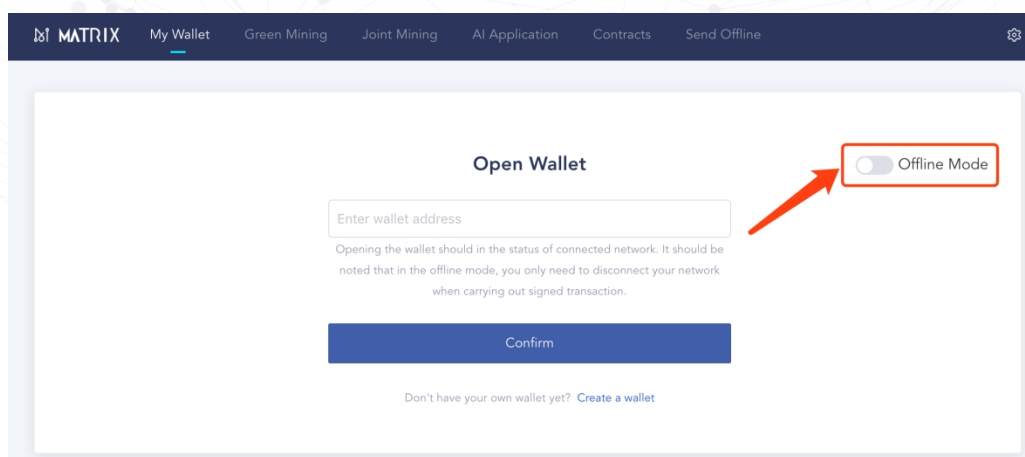
You need to choose a way to open your wallet, then you can use all functions.



The screenshot shows the 'Open Wallet' interface in Online Mode. The top navigation bar includes 'MATRIX', 'My Wallet' (active), 'Green Mining', 'Joint Mining', 'AI Application', 'Contracts', and 'Send Offline'. The main content area is titled 'Open Wallet' with a toggle switch for 'Online Mode' (checked). Below the title, it says 'Choose a method to open your wallet'. There are three options: 'Keystore file' (selected), 'Wallet private key', and 'Mnemonic (MAN Wallet Only)'. A 'Select wallet file...' button is present. At the bottom, there is a link 'Don't have your own wallet yet? Create a wallet'. A 'Safety Tips' section at the bottom states: 'matrix.io does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions. Protect your keys and always ensure that you are on the intended URL. You are responsible for your security.'

### 3.2 Offline Mode

You can open your wallet through your wallet address, then enter the pre-constructed transaction information. When you sign transactions, make sure you are in disconnected network and then send signed information in connected network, ensuring the safety of your wallet account.



The screenshot shows the 'Open Wallet' interface in Offline Mode. The top navigation bar is the same as in the previous screenshot. The main content area is titled 'Open Wallet' with a toggle switch for 'Offline Mode' (checked). Below the title, there is a text input field labeled 'Enter wallet address'. Below the input field, it says: 'Opening the wallet should in the status of connected network. It should be noted that in the offline mode, you only need to disconnect your network when carrying out signed transaction.' A 'Confirm' button is present. At the bottom, there is a link 'Don't have your own wallet yet? Create a wallet'. A red arrow points to the 'Offline Mode' toggle switch.

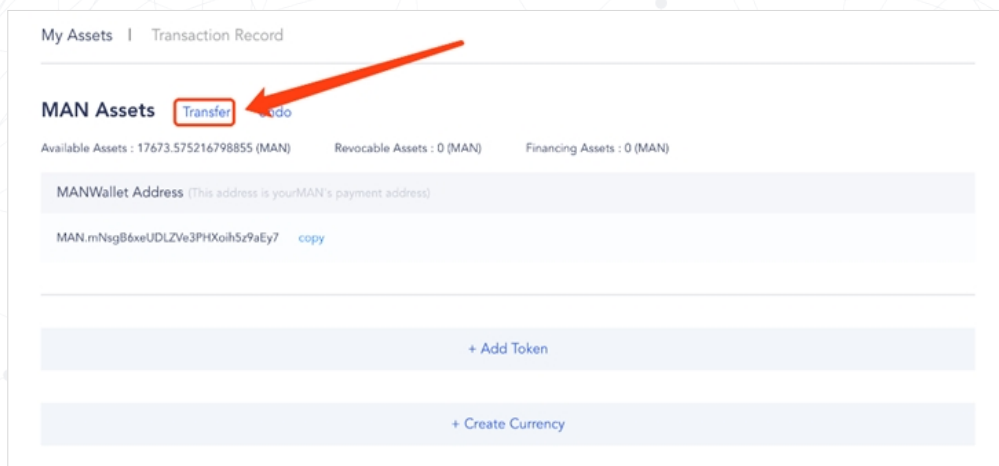
## 4. Transfer

### 4.1 Online Mode

#### 4.1.1 Real time transfer

Real time transfer includes one-to-one transfer and one-to-many transfer.

##### 4.1.1.1 Click **【Transfer】** next to **【MAN Assets】** .

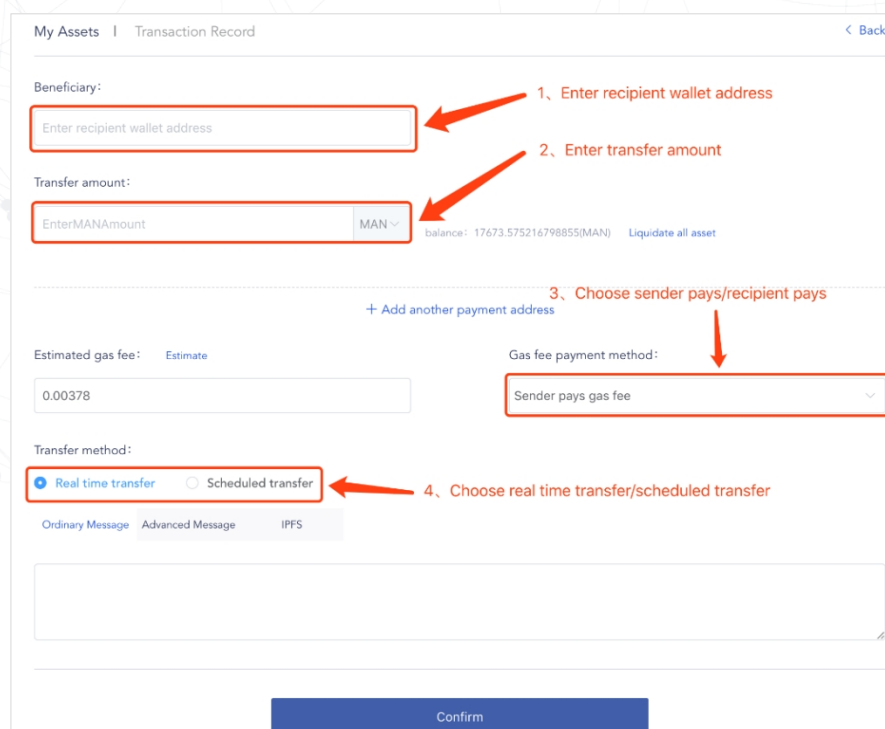


The screenshot shows the 'My Assets' page with a 'Transaction Record' tab. Under 'MAN Assets', the 'Transfer' button is highlighted with a red box and a red arrow. Below this, the available assets are listed: 'Available Assets : 17673.575216798855 (MAN)', 'Revocable Assets : 0 (MAN)', and 'Financing Assets : 0 (MAN)'. The 'MANWallet Address' is displayed as 'MAN.mNsgB6xeUDLZVe3PHXoihSz9aEy7' with a 'copy' link. At the bottom, there are buttons for '+ Add Token' and '+ Create Currency'.

##### 4.1.1.2 Enter transfer information

(including recipient wallet address, transfer amount, gas fee payment method, and choose real time transfer)

Click **【Confirm】** .



The screenshot shows the 'Transfer' form with the following fields and instructions:

- Beneficiary:** A text input field labeled 'Enter recipient wallet address' with a red box and arrow labeled '1, Enter recipient wallet address'.
- Transfer amount:** A text input field labeled 'EnterMANAmount' with a dropdown menu set to 'MAN' and a red box and arrow labeled '2, Enter transfer amount'. To the right, it shows 'balance: 17673.575216798855(MAN)' and a 'Liquidate all asset' link.
- Gas fee payment method:** A dropdown menu labeled 'Sender pays gas fee' with a red box and arrow labeled '3, Choose sender pays/recipient pays'.
- Transfer method:** Radio buttons for 'Real time transfer' (selected) and 'Scheduled transfer' with a red box and arrow labeled '4, Choose real time transfer/scheduled transfer'.

At the bottom, there are tabs for 'Ordinary Message', 'Advanced Message', and 'IPFS'. A large blue 'Confirm' button is at the bottom center.



### Confirm transaction information

---

23 MAN

MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7

→

MAN.GuUGcq4BewtCpEuW3K88CrXQ1eE

---

Cancel

Confirm

### Transfer complete

23 MAN

MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7

→

MAN.GuUGcq4BewtCpEuW3K88CrXQ1eE

You can [Transaction record](#) or [Blockchain browser](#) View transaction progress and details

hash: 0x4b4d16712b076d2fa4758e5dbf92652931a5f37706e463e22e281bd9cba30f56

I know

4.1.1.3 The MATRIX wallet supports one-to-many transactions  
 (clicking on ' +Add another payment address ' to add multiple new addresses)  
 You can transfer to multiple addresses  
 (the added addresses can also be deleted)

**Beneficiary :**

Enter recipient wallet address

**Transfer amount :**

EnterMANAmount

MAN

balance : 0(MAN)

---

**Beneficiary :**

Enter recipient wallet address

**Transfer amount :**

Enter MAN Amount

Delete recipient

+ Add another payment address

**Estimated gas fee :** Estimate

0.00378

**Gas fee payment method :**

Sender pays gas fee

**Transfer method :**

☒
Real time transfer

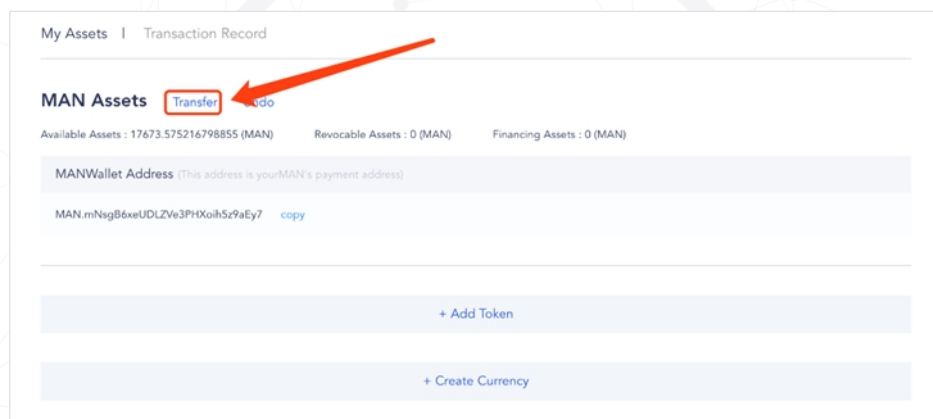
☐
Scheduled transfer

### 4.1.2 Scheduled transfer

Scheduled transfer means that the transfer time can be set and transfer can be completed automatically at the set time.

When the scheduled transfer succeed, the available assets will decrease and the revocable assets will increase accordingly. If the balance in the revocable asset is not withdrawn before the set time, it will be transferred to the recipient wallet address of the transaction. If it is withdrawn, it will return the available assets.

#### 4.1.2.1 Click 【Transfer】

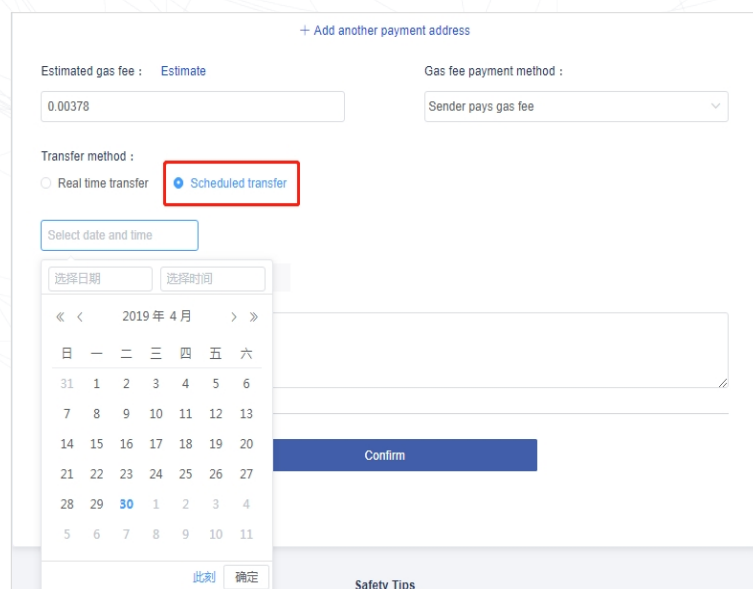


The screenshot shows the 'MAN Assets' section of a wallet interface. At the top, there are tabs for 'My Assets' and 'Transaction Record'. Below the tabs, the 'MAN Assets' section displays three asset types: 'Available Assets : 17673.575216798855 (MAN)', 'Revocable Assets : 0 (MAN)', and 'Financing Assets : 0 (MAN)'. A red box highlights the 'Transfer' button, and a red arrow points to it. Below the asset information, there is a section for 'MANWallet Address (This address is yourMAN's payment address)' with the address 'MAN.mNsgB6xeUDLZVe3PHXoih5r9aEy7' and a 'copy' link. At the bottom, there are two buttons: '+ Add Token' and '+ Create Currency'.

#### 4.1.2.2 Enter transfer information

(including recipient wallet address, transfer amount, gas fee payment method, choose scheduled transfer and select date and time)

Click 【Confirm】 .



The screenshot shows the 'Transfer information' form. At the top, there is a link '+ Add another payment address'. The form has two main sections: 'Estimated gas fee' and 'Gas fee payment method'. The 'Estimated gas fee' section shows '0.00378' and an 'Estimate' button. The 'Gas fee payment method' section shows 'Sender pays gas fee' and a dropdown menu. Below these, the 'Transfer method' section has two options: 'Real time transfer' and 'Scheduled transfer', with 'Scheduled transfer' selected and highlighted by a red box. Under 'Scheduled transfer', there is a 'Select date and time' button. A date/time picker is open, showing a calendar for April 2019. The date '30' is selected. At the bottom right, there is a blue 'Confirm' button. At the very bottom, there is a 'Safety Tips' link.

**Confirm transaction information**

---

23 MAN

MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7


➔

MAN.GuUGcq4BewtCpEuW3K88CrXQ1eE

---

Cancel

Confirm



**Transfer complete**

23 MAN

MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7

➔

MAN.GuUGcq4BewtCpEuW3K88CrXQ1eE

You can [Transaction record](#) or [Blockchain browser](#) View transaction progress and details

hash: 0x4b4d16712b076d2fa4758e5dbf92652931a5f37706e463e22e281bd9cba30f56

I know

### 4.1.3 Undo

If scheduled transfer is not withdrawn before the set time, the balance of revocable assets will be transferred to the recipient wallet address. If it is withdrawn, it will return the available assets.

Note: You can only undo the scheduled transfer sent by yourself.

#### 4.1.3.1 Click **【Undo】** .

My Assets
|
Transaction Record

---

**MAN Assets**
Transfer
Undo

➔

Available Assets : 17627.574460798856 (MAN)
Revocable Assets : 23 (MAN)
Financing Assets : 0 (MAN)

MANWallet Address (This address is yourMAN's payment address)

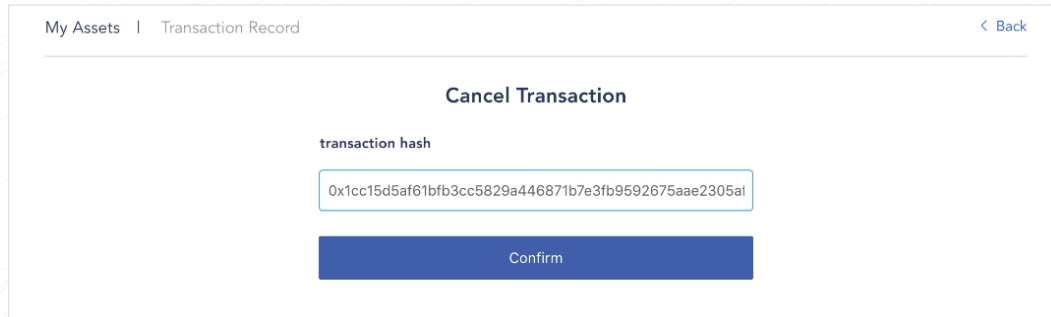
MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7 copy

+ Add Token

+ Create Currency

#### 4.1.3.2 Enter the hash of scheduled transfer

Click **【Confirm】** to undo transactions.



My Assets | Transaction Record < Back

**Cancel Transaction**

transaction hash

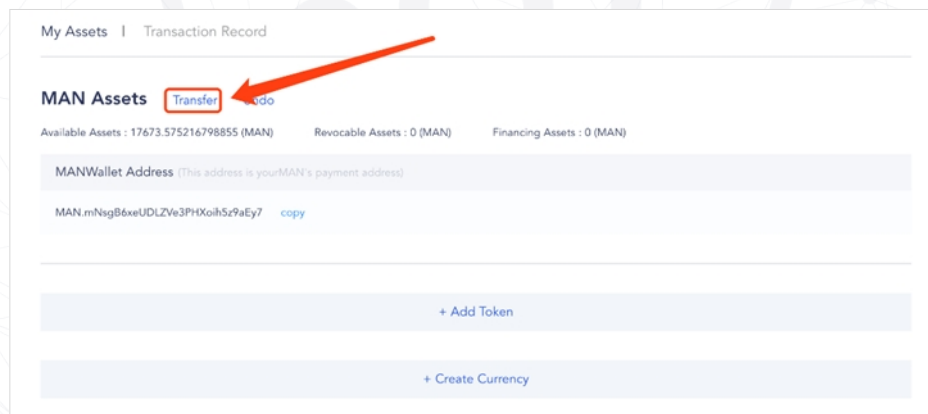
0x1cc15d5af61bfb3cc5829a446871b7e3fb9592675aae2305a1

Confirm

## 4.2 Offline Mode

The operation process of transfer function in offline mode is basically the same as that in online mode, but after entering the transfer information, signing transaction should be in connected network.

### 4.2.1 Click **【Transfer】**



My Assets | Transaction Record

**MAN Assets** **Transfer** Undo

Available Assets : 17673.575216798855 (MAN)    Revocable Assets : 0 (MAN)    Financing Assets : 0 (MAN)

MANWallet Address (This address is yourMAN's payment address)

MAN.mNsgB6xeUDLZVe3PHXoih5z9aEy7 [copy](#)

+ Add Token

+ Create Currency

### 4.2.2 Enter transfer information

(including recipient wallet address, transfer amount, gas fee payment method, transfer method, etc)

Click **【Confirm】** .



My Assets | Transaction Record < Back

Beneficiary:

Enter recipient wallet address

Transfer amount:

EnterMANAmount MAN balance: 17673.575216798855(MAN) Liquidate all asset

+ Add another payment address

Estimated gas fee: Estimate 0.00378

Gas fee payment method: Sender pays gas fee

Transfer method:

☒ Real time transfer ☐ Scheduled transfer

Ordinary Message Advanced Message IPFS

Confirm

### 4.2.3 Choose the way of signing transaction

(Keystore file or Wallet private key or Mnemonic)

After signing, the signed information will be generated.

It should be noted that this step should be in a state of disconnected network to ensure the safety of wallets.

unsigned transaction:

```
{
  "to": "MAN.GuUGcqq4BewtCpEuW3K88CrXQ1eE",
  "value": "0x2fb474098f67c0000",
  "gasLimit": "0x33450",
  "data": "0x",
  "gasPrice": "0x430e23400",
  "commitTime": "1556185190",
  "isEntrustTx": "",
  "TxEnterType": "",
  "chainId": 3,
  "extra_to": [[0, 0, []]],
  "nonce": "0x10000000000011"
}
```

☒ Keystore file
 ☐ Wallet private key
 ☐ Mnemonic (MAN Wallet Only)

Select wallet file...

\*Please ensure your device is offline when you unlock your wallet

#### 4.2.4 After signing successfully, there will be “signed information” generating, and then send signed information to chain.

It should be noted that this step should be in a state of connected network.

##### Send signed transaction

```
0xf88d87100000000000011850430e2340083033450a04d414e2e477555476371713442657774437045755733
4b3838437278513165458902fb474098f67c00008029a08c7acf3e2d69600a269e39a2e7fa354664fc3a0393fe
e584fc2575ea143e05b8a060de845c76fb1c30c943219263f4f7af4e7cb934db2cf106f74abc270f4a9211808084
5cc18066c4c38080c0
```

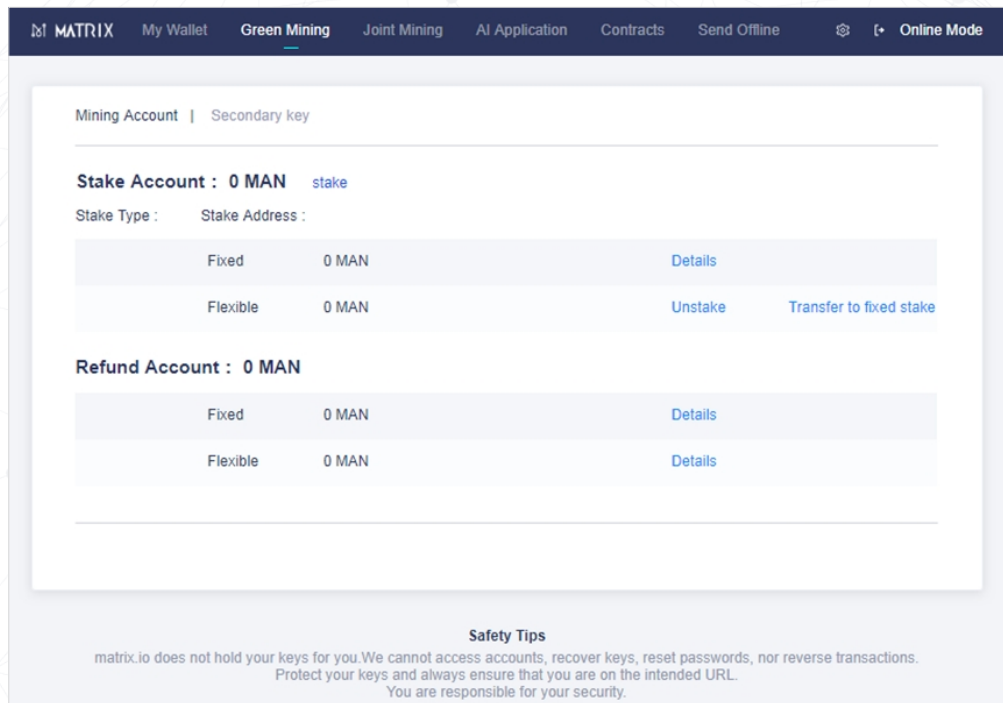
Send signed information

\*Please ensure your device is networked when you send the signed transaction

## 5. Green Mining

### 5.1 Mining Account

In the "Mining Account", you can view the stake account, refund account, and carry out the operations of "stake" and "unstake".



MATRIX My Wallet **Green Mining** Joint Mining AI Application Contracts Send Offline Online Mode

Mining Account | Secondary key

**Stake Account : 0 MAN** [stake](#)

Stake Type : Stake Address :

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Unstake</a> <a href="#">Transfer to fixed stake</a>

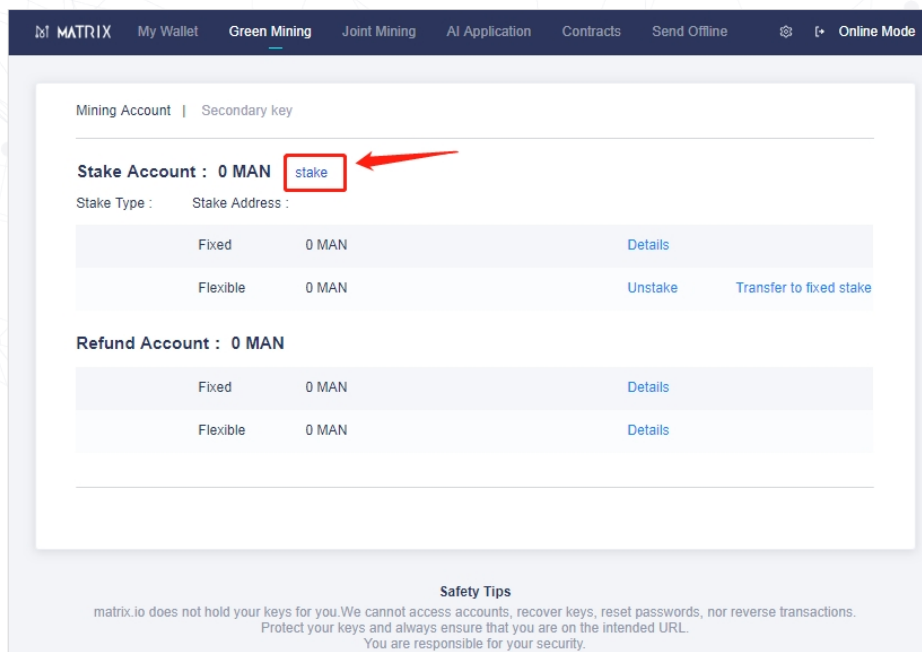
**Refund Account : 0 MAN**

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Details</a>

**Safety Tips**  
matrix.io does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions.  
Protect your keys and always ensure that you are on the intended URL.  
You are responsible for your security.

#### 5.1.1 Stake

a. Click **【Stake】** in "Mining Account".



MATRIX My Wallet **Green Mining** Joint Mining AI Application Contracts Send Offline Online Mode

Mining Account | Secondary key

**Stake Account : 0 MAN** [stake](#)

Stake Type : Stake Address :

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Unstake</a> <a href="#">Transfer to fixed stake</a>

**Refund Account : 0 MAN**

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Details</a>

**Safety Tips**  
matrix.io does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions.  
Protect your keys and always ensure that you are on the intended URL.  
You are responsible for your security.

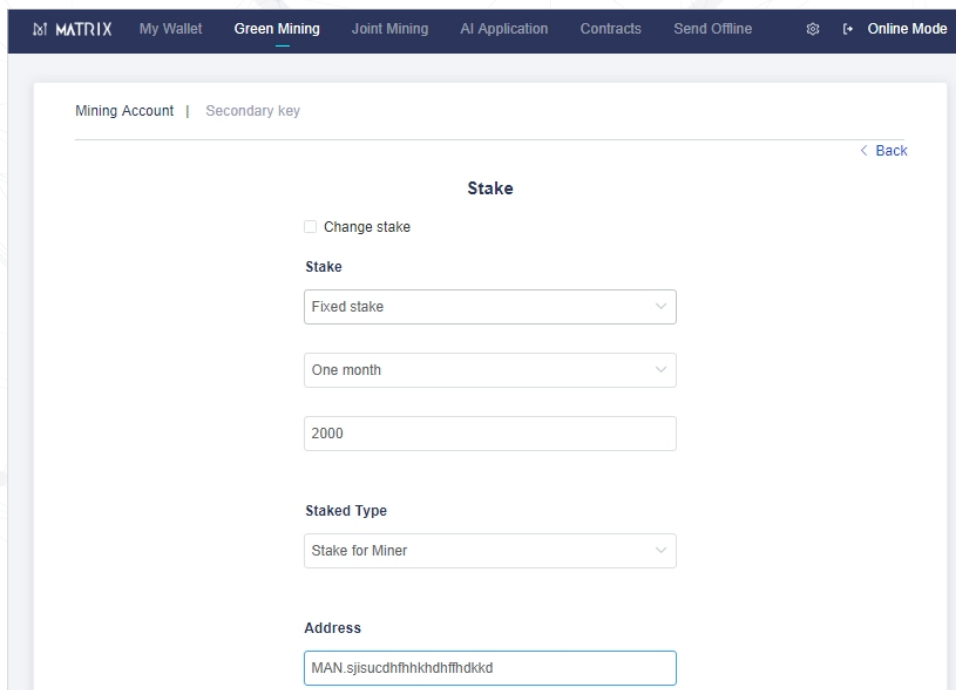
b. Choose fixed/flexible stake; enter the amount of stake; confirm stake for miners/validators (miners' stake need to be greater than 10 000 MAN, validators' stake need to be greater than 10 0000 MAN) and mining address.

(If you haven't launched masternode yet, refer to MATRIX NODE DEPLOYMENT FILES AND GUIDE <https://www.matrix.io/downloads.cn/>).

**Fixed Stake:** Choose the time of stake(1 month, 3 months, 6 months, 12 months). If you carry out unstake operation before the expiration of the period, the staked tokens will reach the "refund account" within 2 hours after the expiration. If you don't carry out unstake operation before the term expires, it will continue to restart the stake after the term expires according to the previous stake time.

**Flexible Stake:** You can carry out "unstake" at any time, and the amount of stake will reach the "refund account" within 7 days after unstake.

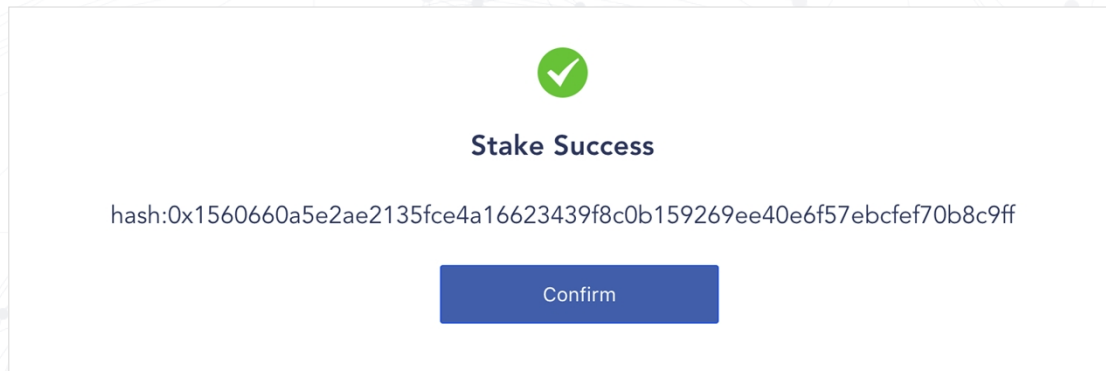
**Address:** the wallet address used for starting nodes;  
Wallet with 0 MAN is recommended for mining address when you use the third party for mining. (Whatever wallets are used for mining addresses, rewards for mining will go to the staking one.)



The screenshot displays the MATRIX web application interface. The top navigation bar includes links for MATRIX, My Wallet, Green Mining (which is highlighted), Joint Mining, AI Application, Contracts, Send Offline, and Online Mode. The main content area is titled 'Mining Account | Secondary key' and features a '< Back' link. The 'Stake' section contains a checkbox for 'Change stake', a 'Stake' dropdown menu set to 'Fixed stake', a time period dropdown menu set to 'One month', a text input field for the stake amount containing '2000', a 'Staked Type' dropdown menu set to 'Stake for Miner', and an 'Address' text input field containing the address 'MAN.sjisucdhfhkhkhdfhdkkd'.

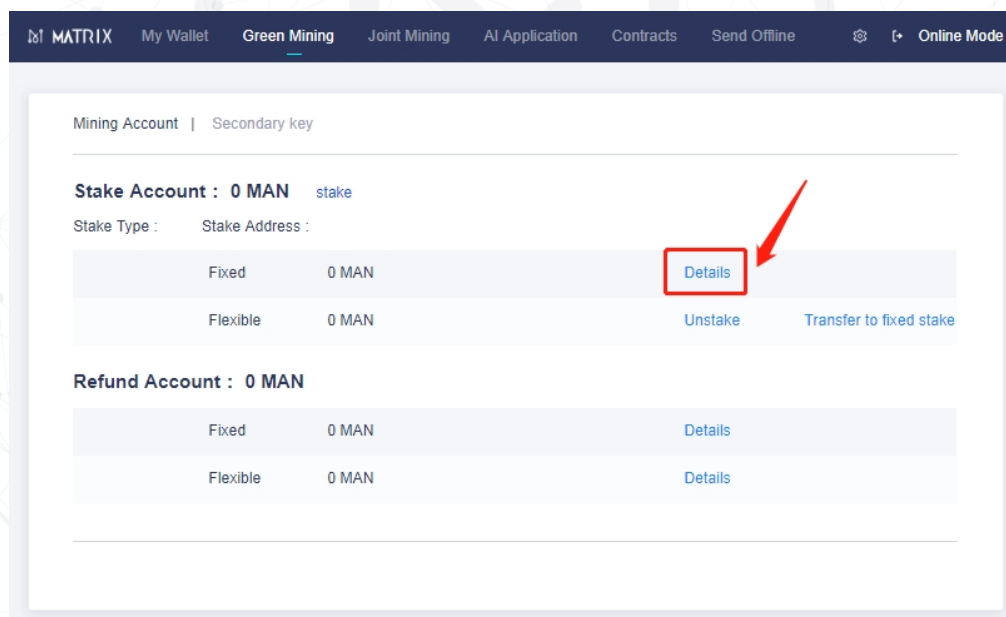


c. You can copy transaction hash after successful stake and query process in browser (tom.matrix.io) .

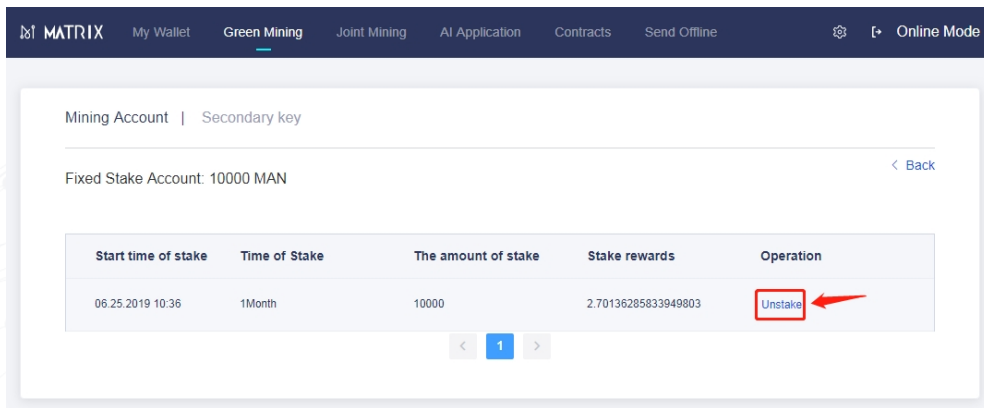


### 5.1.2 Unstake Fixed Stake

a. Click "Details" of fixed stake.

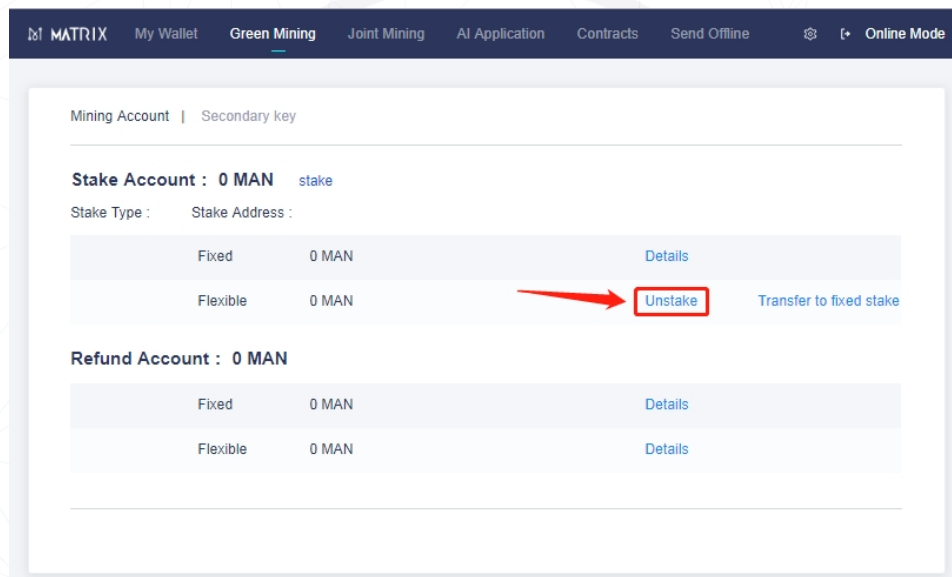


b. Choose one fixed stake that you want to unstake, click "Unstake".

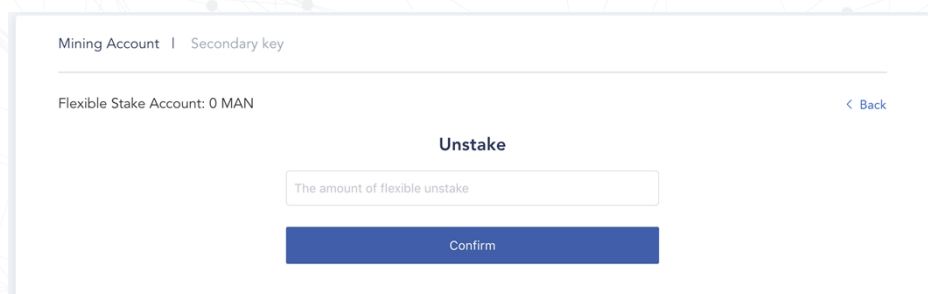


### 5.1.3 Unstake Flexible Stake

a. Click “Unstake” of flexible stake.

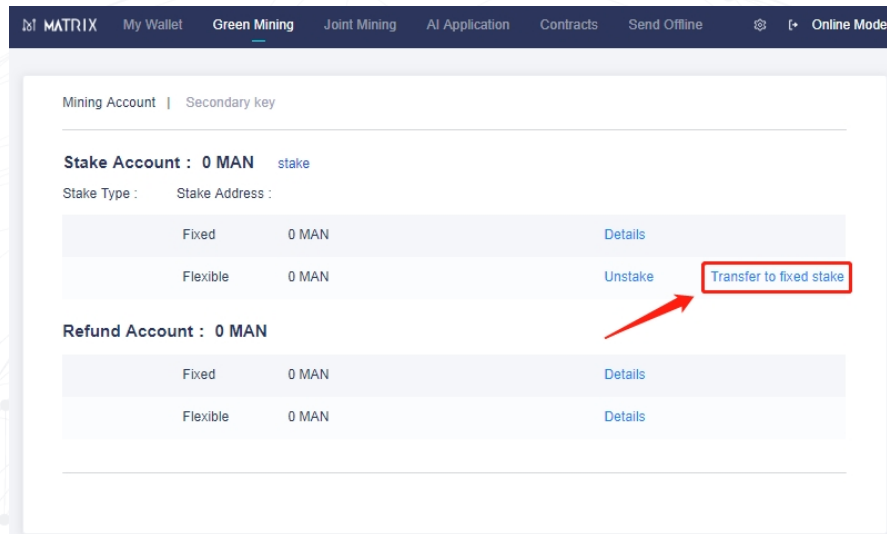


b. Enter the amount of unstake.

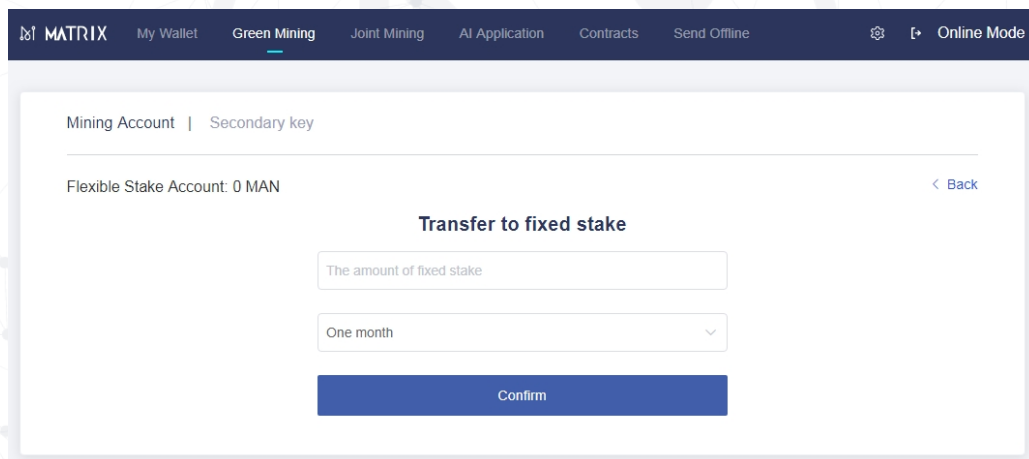


### 5.1.4 Transfer flexible stake to fixed stake

a. Click “Transfer to fixed stake” in flexible stake.



b. Enter the amount of stake,  
select the time of fixed stake and then click 【Confirm】



### 5.1.5 Refund

a. Click 【Details】 in the “Refund Account”.

[My Wallet](#)
[Green Mining](#)
[Joint Mining](#)
[AI Application](#)
[Contracts](#)
[Send Offline](#)
[Online Mode](#)

Mining Account | Secondary key

**Stake Account : 0 MAN**
[stake](#)

Stake Type :      Stake Address :

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Unstake</a> <a href="#">Transfer to fixed stake</a>

**Refund Account : 0 MAN**

Fixed	0 MAN	<a href="#">Details</a>
Flexible	0 MAN	<a href="#">Details</a>

b. You can view the state of refund and withdrawal the tokens to available assets.

Mining Account | Secondary key

**Flexible Withdrawals**
[Back](#)

The time of withdrawals	Amount	State	Operation
06.27.2019 16:02	20020.884275455414612357	Unstaking	

< 1 >

## 5.2 Secondary key

You can authorize other wallet replacing mining wallet to sign when packing blocks, to ensure the safety of wallet that receives rewards.



MATRIX

My Wallet

Green Mining

Joint Mining

AI Application

Contracts

Send Offline

Online Mode

Mining Account | Secondary key

During block creation, you can authorize other wallets to provide a signature in place of a mining wallet to protect the receiving wallet.

Currently authorized keys

Authorized wallet address

Authorization timeframe

☒ block height

☐ time

0

--

0

+ Add authorized wallet address

Submit

In Currently authorized keys, you can revoke authorization.

Mining Account | Secondary key

revoke authorization

< Back

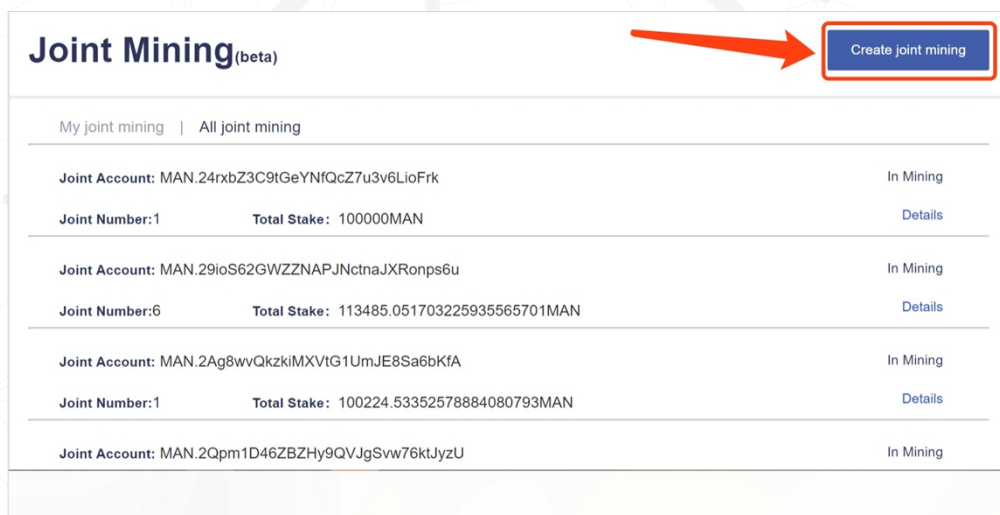
<input type="checkbox"/> Number	authorized wallet	Admin settings
<input type="checkbox"/> 1	MAN.bhmJ29PEW56euqquCQNy1grctfKq	06.27.2019 12:26 — 07.03.2019 00:00

## 6. Joint Mining

In the joint mining, there are the creators and participants of the mining pool. The creators of the mining pool need to do mining, while the participants of the mining pool do not need to launch the equipment, only need to choose the mining pool and participate in the stake.

### 6.1 Create Joint Mining

#### 6.1.1 Click 【Create joint mining】

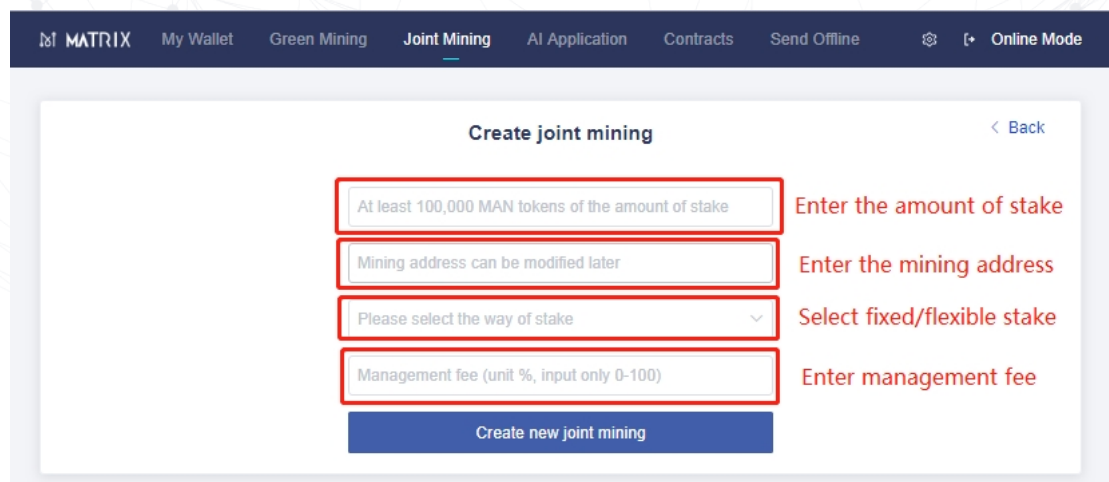


**Joint Mining (beta)**

My joint mining | All joint mining

Joint Account: MAN.24rxbZ3C9tGeYNfQcZ7u3v6LioFrk	In Mining
Joint Number:1      Total Stake: 100000MAN	<a href="#">Details</a>
Joint Account: MAN.29ioS62GWZZNAPJNctnaJXRonps6u	In Mining
Joint Number:6      Total Stake: 113485.051703225935565701MAN	<a href="#">Details</a>
Joint Account: MAN.2Ag8wvQkzkiMXVtG1UmJE8Sa6bKfA	In Mining
Joint Number:1      Total Stake: 100224.53352578884080793MAN	<a href="#">Details</a>
Joint Account: MAN.2Qpm1D46ZBZHy9QVJgSvw76ktJyzU	In Mining

#### 6.1.2 You can stake step by step, click 【Create new joint mining】



**Create joint mining** [Back](#)

At least 100,000 MAN tokens of the amount of stake **Enter the amount of stake**

Mining address can be modified later **Enter the mining address**

Please select the way of stake **Select fixed/flexible stake**

Management fee (unit %, input only 0-100) **Enter management fee**

**Create new joint mining**

**6.1.3** You can view your joint mining in “My joint mining” after creating successfully.

**Joint Mining** (beta) [Create joint mining](#)

**My joint mining** | All joint mining

Joint Account: MAN.2Ag8wvQkzkiMXViG1UmJE8Sa6bKfA	In Mining
Joint Number:1      Total Stake: 100224.53352578884080793MAN	<a href="#">Details</a>
Joint Account: MAN.2XJyrPbqhSP3uBZC6Nh9fAL2Jy9vB	In Mining
Joint Number:1      Total Stake: 100000MAN	<a href="#">Details</a>
Joint Account: MAN.2u3iee5M8783Nnz5e2W17Drq5rUMg	In Mining
Joint Number:2      Total Stake: 100250MAN	<a href="#">Details</a>

< 1 >

## 6.2 Participate in Joint Mining

**6.2.1** Choose the mining pool you want to be involved in **【All joint mining】** , pay attention to selecting the one in the "In Mining" state, and click "Details".

**Joint Mining** (beta) [Create joint mining](#)

My joint mining | **All joint mining**

Joint Account: MAN.24rbxZ3C9tGeYNfQcZ7u3v6LioFrk	In Mining
Joint Number:1      Total Stake: 100000MAN	<a href="#">Details</a>
Joint Account: MAN.29ioS62GWZZNAPJNctnaJXRonps6u	In Mining
Joint Number:6      Total Stake: 113485.051703225935565701MAN	<a href="#">Details</a>
Joint Account: MAN.2Ag8wvQkzkiMXViG1UmJE8Sa6bKfA	In Mining
Joint Number:1      Total Stake: 100224.53352578884080793MAN	<a href="#">Details</a>
Joint Account: MAN.2Qpm1D46ZBZH9QVJgSvw76ktJyzU	In Mining

**6.2.2** Click **【Join Mining】**

[< Back](#)

**Joint Account:** MAN.24rbxZ3C9tGeYNfQcZ7u3v6LioFrk      **Joint Number:** 1  
**Creator Account:** MAN.3EacJ31nv4Uc9djFkdSsQVpC7ZPyP  
**Mining Account:** MAN.27NAGio6L5gjPqaiCG8zVgR9z38Qd  
**Total stake amount:** 100000 **Total rewards amount :** 4.223872082248723235  
**Management fees:** 0.5%  
**Rewards Distribution Weight:** R0 : 1 R1 : 1 R2 : 1 R3 : 1  
R0 is the creator rewards distribution weight, while R1 is less than 10,000, R2 is between 10,000 and 100,000, and R3 is more than 100,000 participants rewards distribution weight.

Join Mining

---

**Account:** MAN.3EacJ31nv4Uc9djFkdSsQVpC7ZPyP      **Accumulated Rewards:** 4.223872082248723235MAN  
**Total stake amount:** 100000

### 6.2.3 Select fixed/flexible stake, and enter the amount of stake. Click **【Joint Mining】**

[< Back](#)

#### Participate in joint mining

Please select the way of stake

The amount of stake

1、At least 2000 MAN must be added each time for the fixed stake  
 2、At least 100 MAN must be added each time for the flexible stake

Join Mining

## 6.3 Exit Joint Mining

**6.3.1** If you are the creator, you can choose to **【Close Mining】**. After closing mining, all flexible stake in the mining pool will automatically return to the refund account within 7 days, while the fixed stake will reach refund account within 2 hours after the expiration.

[< Back](#)

**Joint Account:** MAN.2Ag8wvQkzkIMXVtG1UmJE8Sa6bKfA      **Joint Number:** 1  
**Creator Account:** MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo  
**Mining Account:** MAN.xJCoEE2m79XtLCVDNKhbg6veBcuN  
**Total stake amount:** 100224.53352578884080793    **Total rewards amount :** 5.184834369448465769  
**Management fees:** 1.1e-8%  
**Rewards Distribution Weight:** R0 : 1 R1 : 1 R2 : 1 R3 : 1  
R0 is the creator rewards distribution weight, while R1 is less than 10,000, R2 is between 10,000 and 100,000, and R3 is more than 100,000 participants rewards distribution weight.

[Join Mining](#)  
[Close Mining](#)  
[Modify mining address](#)

---

**Account:** MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo      **Accumulated Rewards:** 5.184834369448465769MAN      [Details](#)  
**Total stake amount:** 100224.53352578884080793

**6.3.2** If you are a participant, you can click **【Details】** in the mining pool where you have staked your tokens.

[< Back](#)

**Joint Account:** MAN.2Ag8wvQkzkIMXVtG1UmJE8Sa6bKfA      **Joint Number:** 1  
**Creator Account:** MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo  
**Mining Account:** MAN.xJCoEE2m79XtLCVDNKhbg6veBcuN  
**Total stake amount:** 100224.53352578884080793    **Total rewards amount :** 5.  
**Management fees:** 1.1e-8%  
**Rewards Distribution Weight:** R0 : 1 R1 : 1 R2 : 1 R3 : 1  
R0 is the creator rewards distribution weight, while R1 is less than 10,000, R2 is between 10,000 and 100,000, and R3 is more than 100,000 participants rewards distribution weight.

[Join Mining](#)

---

**Account:** MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo      **Accumulated Rewards:** 5.184834369448465769MAN      [Details](#)  
**Total stake amount:** 100224.53352578884080793

Click on **【Unstake】**

Within 7 days after the unstake of the flexible stake, you can carry out the "withdrawal" operation on the current page. After successful withdrawal, the amount of the flexible stake will be transferred to the "Accumulated Rewards".

After the unstake of fixed stake, you can carry out the "withdrawal" operation on the current page within 2 hours after the expiration date. After successful withdrawal, the amount of the fixed stake will be transferred to the "Available assets".



Account: MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo			Back	
Total stake amount:100224.53352578884080793MAN		Accumulated Rewards: 5.184834369448465769MAN		Rewards Withdrawals
Type	Time limit	Amount	status	Operation
Flexible	1Month	100224.53352578884080793	In Staking	Unstake

## 6.4 Rewards Withdrawals

Accumulated rewards are the mining rewards earned in the mining pool, and can be withdrawal to available assets.

Account: MAN.CrsnQSJJfGxpb2taGhChLuyZwZJo			Back	
Total stake amount:100224.53352578884080793MAN		Accumulated Rewards: 5.184834369448465769MAN		Rewards Withdrawals
Type	Time limit	Amount	status	Operation
Flexible	1Month	100224.53352578884080793	In Staking	Unstake

## 7. AI Application

Users upload their own pictures or medical images in their wallets. After paying gas fees, the wallet will automatically process through the AI server. Then users can view the transaction and the results of AI analysis in the block chain browser.

AI applications now provide three main functions, namely, Lung cancer diagnosis, pose detection and object detection, which will be updated in the future. Here, we take the pose detection as an example to explain the operation process.

### 7.1 Click 【Start】

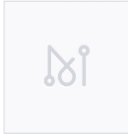


### 7.2 Enter information.

Upload the picture that needs to be detected  
Confirm consumed MAN  
Then click 【Submit】

Lung cancer diagnosis | pose detection | object detection

Please select the file to upload



0%

Upload

1. Upload your picture

☐ This AI task will use 0 man


2. Confirm it

Submit

3. Click submit

### 7.3 After upload successfully

You can copy the hash to view the result of AI process in browser  
(tom.matrix.io)



**Successfully Uploaded**

hash:0xb6870afa23de2fd7e8278eee352a1f85b1a83d4aa6adc306f6485d0fd52cbd85



Confirm

**7.4** The transaction hash can be queried in the browser,  
and the processed image is implemented by another automatically  
triggered transaction.

The “from” address of this transaction is the uniform address of the AI server, and the  
“to” address is the “from” address of the original transaction.



Transaction Information

Home | Transaction Information

TxHash:	0x327f40c5e8cedef9570ee10196a5cf94e898eee0de6d473291cff7bea7756990	
Block Height:	131928	
TimeStamp:	2019-01-09 17:30:39 +0800 (13 mins, 29 seconds ago)	
From:	MAN.pfLeoExi3fjmSjixhadF45FKjzUA	
To:	MAN.bjHUSZCpkwg6k1nUCNG1vjKxVeBU	
Value:	0 MAN	
nonce	4503599627371333	
Input Data	<div> <div>matrix{"type": "20", "length": 89, "data": "</div> <div></div> </div>	
<div>UTF-8   Original   Html</div>		

Transaction Information

Home | Transaction Information

TxHash:	0x10e28f800d1c6b78d47864b43339fce15f0c6eaff93e518dcdb6f6d10970c8fc	
Block Height:	132020	
TimeStamp:	2019-01-09 17:42:39 +0800 (38 seconds ago)	
From:	MAN.2Uoz8g8jauMa2mtnwxrschj2qPjRE	
To:	MAN.pfLeoExi3fjmSjixhadF45FKjzUA	
Value:	0 MAN	
nonce	4503599627930329	
Input Data	<div> <div>matrix{"type": "2", "length": 256, "data": "</div> <div></div> </div>	

## 8. Contracts (Creating Token)

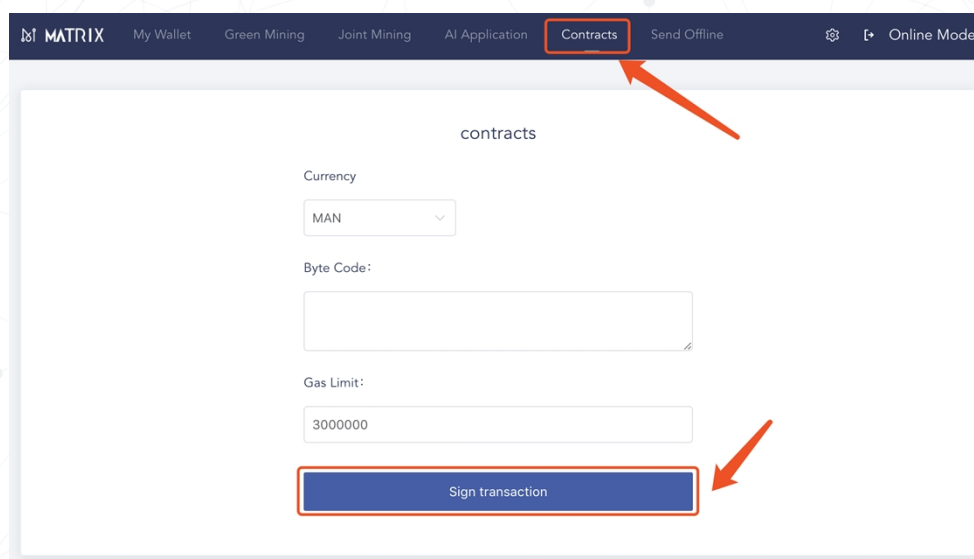
Through Contracts, you can create token on MATRIX mainnet.

### 8.1 Go to the "Contracts"

Copy the byte code from your pre-compiled contract code

Paste it into the Byte Code

(Because the data attached to the contract transaction is a lot, the gas limit should be set to be larger)



MATRIX My Wallet Green Mining Joint Mining AI Application **Contracts** Send Offline Online Mode

contracts

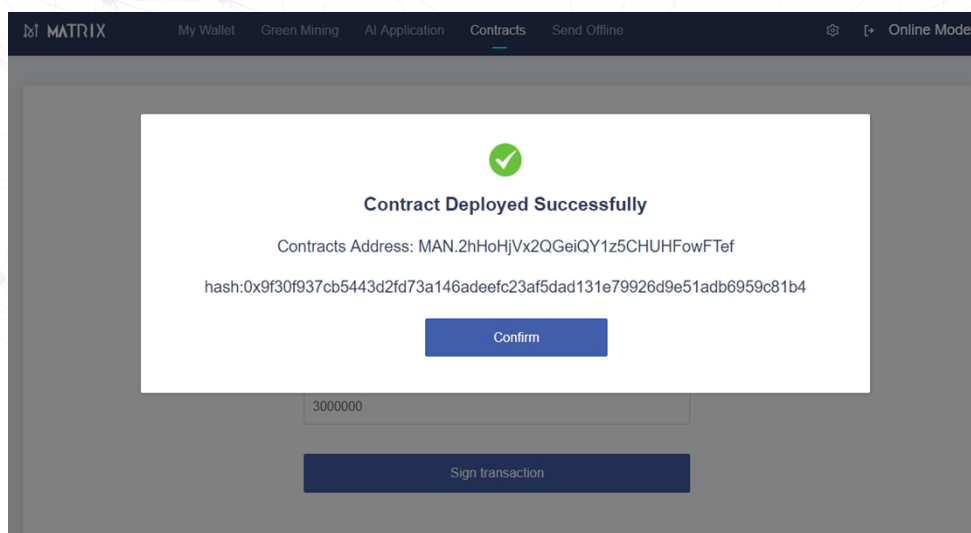
Currency  
MAN

Byte Code:

Gas Limit:  
3000000

**Sign transaction**

**8.2** After the transaction succeed  
A contract address will be returned.  
Please save this address.



MATRIX My Wallet Green Mining AI Application **Contracts** Send Offline Online Mode

✓

**Contract Deployed Successfully**

Contracts Address: MAN.2hHoHjVx2QGeiQY1z5CHUHFowFTef

hash:0x9f30f937cb5443d2fd73a146adeefc23af5dad131e79926d9e51adb6959c81b4

**Confirm**

3000000

**Sign transaction**



### 8.3 Back to home and click 【+Add token】

My Assets | Transaction Record

**MAN Assets** Transfer Undo

Available Assets : 530550.8071212727 (MAN) Revocable Assets : 0 (MAN) Financing Assets : 0 (MAN)

MANWallet Address (This address is yourMAN's payment address)

MAN.YaNmyEHkBFsx9mlMKweDFv6qc6PCc [copy](#)

[+ Add Token](#)

### 8.4 Enter Token Contract address, Token Symbol, Decimal (Default value is 18) Click 【Save】 (It will prompt the token to be added successfully)

MATRIX My Wallet Green Mining AI Application Contracts Send Offline Online Mode

My Assets | Transaction Record < Back

**Add Token**

After adding a Token, you can view it on this computer. If you use another computer, you will need to add the Token again

TokenContract address

Token Symbol

Decimal

18

Save

### 8.5 Go to Transfer page You can select the token you just added.

My Assets | Transaction Record

< Back

Beneficiary:

Enter recipient wallet address

Transfer amount:

EnterMANAmount

MAN

balance: 530550.8071212727(MAN) Liquidate all asset

Estimated gas fee:

Estimate

0.00378

Gas fee payment method:

Sender pays gas fee

Transfer method:

☒ Real time transfer

☐ Scheduled transfer

TEST

RRR

YONG

MMM

ZZZ

DMW

MATRIX

+ Add another payment address

My Assets | Transaction Record

< Back

Beneficiary:

Enter recipient wallet address

Transfer amount:

1

RRR

balance: 0(RRR) Liquidate all asset

Estimated gas fee:

Estimate

0.00378

Gas fee payment method:

Sender pays gas fee

Transfer method:

☒ Real time transfer

☐ Scheduled transfer

Ordinary Message

Advanced Message

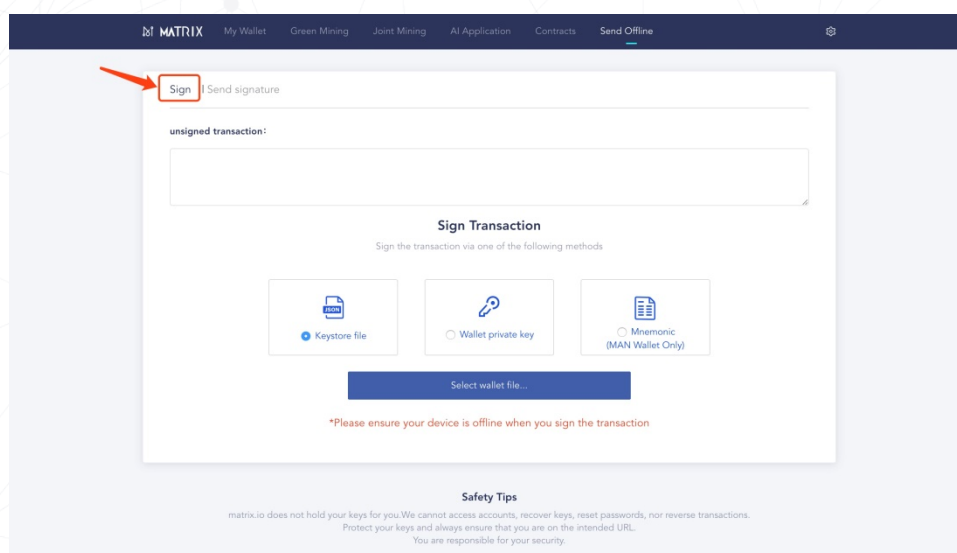
IPFS

## 9. Send Offline

### 9.1 Sign

An offline transaction is to sign a transaction on a computer that is disconnected from the network, then will generate a signed transaction, and copy it to a network-connected computer for sending to chain.

#### 9.1.1 Click 【Sign】



**9.1.2** Paste the constructed unsigned transaction information into the input box.

**Sign**

**unsigned transaction:**

```
{
  "to": "MAN.YaMnyEHkBFsXmMKweDFv6qc6PCc",
  "value": "0xde0b6b3a7640000",
  "gasLimit": "0x33450",
  "data": "0x",
  "gasPrice": "0x430e23400",
  "CommitTime": "1556621405",
  "IsEntrustTx": "",
  "TxEnterType": "",
  "chainId": 3,
  "extra_to": [[0, 0, []]],
  "nonce": "0x100000000000010"
}
```



Keystore file



Wallet private key



Mnemonic  
(MAN Wallet Only)

Please enter private key

Open Wallet

\*Please ensure your device is offline when you sign the transaction

---

Sign | Send signature

**unsigned transaction:**

```
{
  "to": "MAN.YaMnyEHkBFsXmMKweDFv6qc6PCc",
  "value": "0xde0b6b3a7640000",
  "gasLimit": "0x33450",
  "data": "0x",
  "gasPrice": "0x430e23400",
  "CommitTime": "1556621759",
  "IsEntrustTx": "",
  "TxEnterType": "",
  "chainId": 3,
  "extra_to": [[0, 0, []]],
  "nonce": "0x100000000000010"
}
```

**Sign Transaction**

Sign the transaction via one of the following methods

**9.1.3** Choose a way to open your wallet with Keystore file, Wallet private key or Mnemonic to sign.

At this time, when you sign transaction, make sure you are in the state of disconnected network to ensure the security of your wallet.

Sign | Send signature


---

**unsigned transaction:**


```
{
  "to": "MAN.YaMnyEHkBFsXmMKweDFv6qc6PCc",
  "value": "0xde0b6b3a7640000",
  "gasLimit": "0x33450",
  "data": "0x",
  "gasPrice": "0x430e23400",
  "CommitTime": "1556621759",
  "IsEntrustTx": "",
  "TxEnterType": "",
  "chainId": 3,
  "extra_to": [[0, 0, []]],
  "nonce": "0x100000000000010"
}
```

**Sign Transaction**


Sign the transaction via one of the following methods



Keystore file



Wallet private key



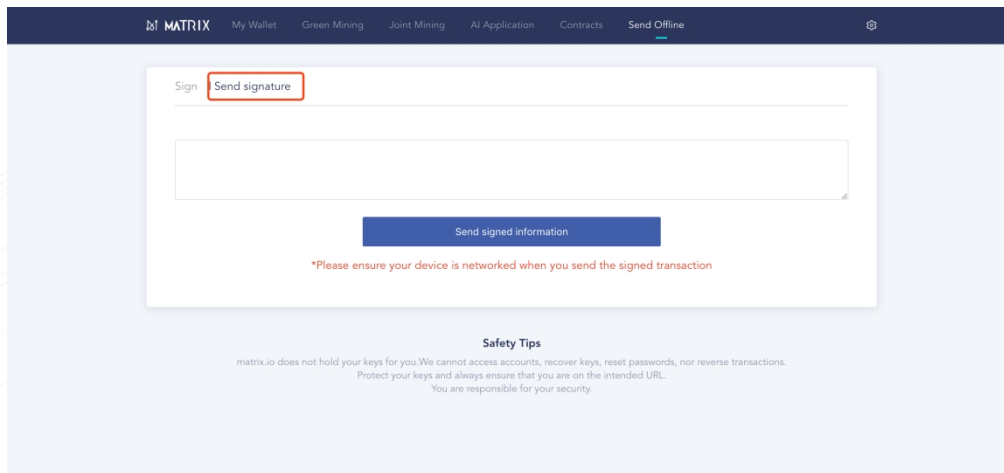
Mnemonic  
(MAN Wallet Only)

Select wallet file...

\*Please ensure your device is offline when you sign the transaction

## 9.2 Send signature

### 9.2.1 Click 【Send signature】

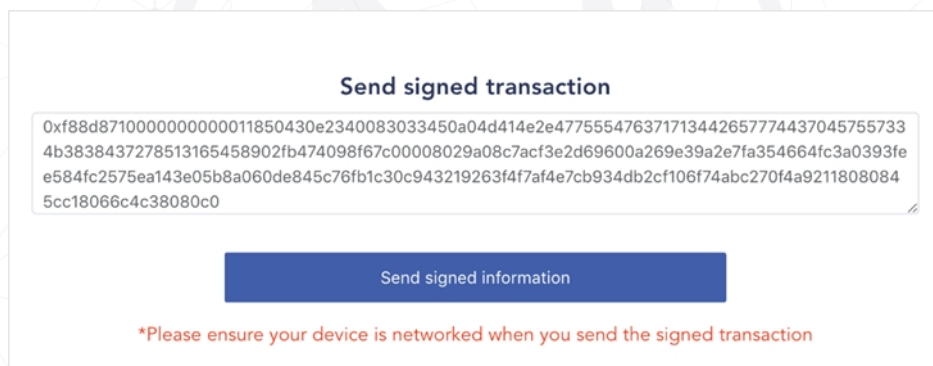


The screenshot shows the MATRIX wallet interface with a dark blue header containing navigation links: My Wallet, Green Mining, Joint Mining, AI Application, Contracts, and Send Offline. The main content area is light blue and features a 'Sign' section with a 'Send signature' button highlighted by a red box. Below this is a large empty text input field. A blue button labeled 'Send signed information' is positioned below the input field. A red warning message states: '\*Please ensure your device is networked when you send the signed transaction'. At the bottom, a 'Safety Tips' section includes the text: 'matrix.io does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions. Protect your keys and always ensure that you are on the intended URL. You are responsible for your security.'

**9.2.2** Paste the signed information into the input box of this function when the network is disconnected.

Click on **【Send Signature Information】**

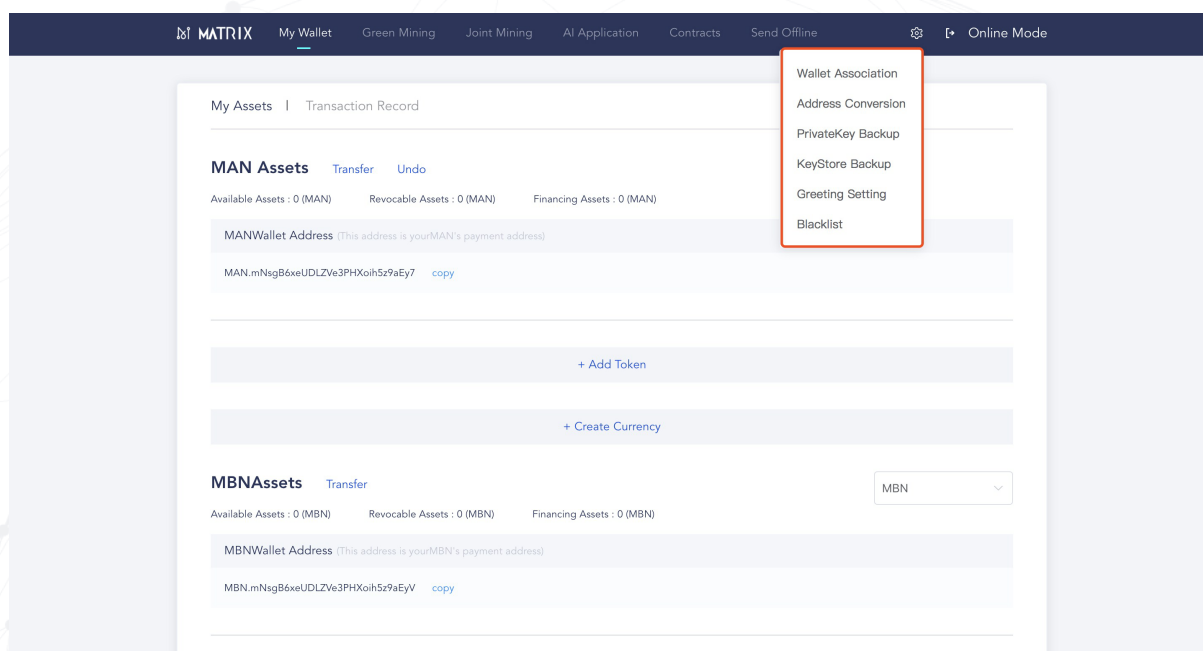
(It should be noted that this step should be in the state of connected network)



The screenshot shows the 'Send signed transaction' function in the MATRIX wallet. It features a text input field containing a long hexadecimal string: 0xf88d8710000000000011850430e2340083033450a04d414e2e4775554763717134426577744370457557334b3838437278513165458902fb474098f67c00008029a08c7acf3e2d69600a269e39a2e7fa354664fc3a0393fe584fc2575ea143e05b8a060de845c76fb1c30c943219263f4f7af4e7cb934db2cf106f74abc270f4a92118080845cc18066c4c38080c0. Below the input field is a blue button labeled 'Send signed information'. A red warning message states: '\*Please ensure your device is networked when you send the signed transaction'.



## 10. Settings



### 10.1 Wallet Association

Wallet Association is a kind of entrusting behavior, that is, the transaction initiated by the associated wallet under specified conditions will be paid gas fee by the related party.

Note: When a transfer transaction is initiated by an associated wallet, it is necessary to choose "Recipient pays gas fee".

#### 10.1.1 Enter the joint wallet address

Choose an association type:

Block height: The association is valid within the specified block height range

Time: The association is valid within a specified time range

Number of times: Number of times authorized

MATRIX My Wallet Green Mining AI Application Contracts Send Offline Online Mode

Add joint wallet | joint wallets

### Add joint wallet

< Back

Once a joint wallet is enabled, the joint wallet can draw on the wallet's "available assets" to cover gas fees. A wallet can add multiple joint wallets, although each user can only serve as a joint wallet to one account.

Joint wallet:

Association Type

☒ block height ☐ time ☐ Number

0 -- 0

+ Add New

Confirm

## 10.1.2 You can view joint wallets in 【joint wallets】

MATRIX My Wallet Green Mining AI Application Contracts Send Offline Online Mode

Add joint wallet | joint wallets

MAN

Cancel Association

Number	authorized wallet	setup details
暂无数据		

## 10.2 Address Conversion

Click 【Address Conversion】 to convert ETH address to MAN address.

Currency

MAN address

Currency Name

Convert

Conversion:

Conversion Result:

Currency Address:

enter content

Convert

MAN address:

enter content

Convert

ETH address:

enter content

Convert

TEXT:

enter content

Convert

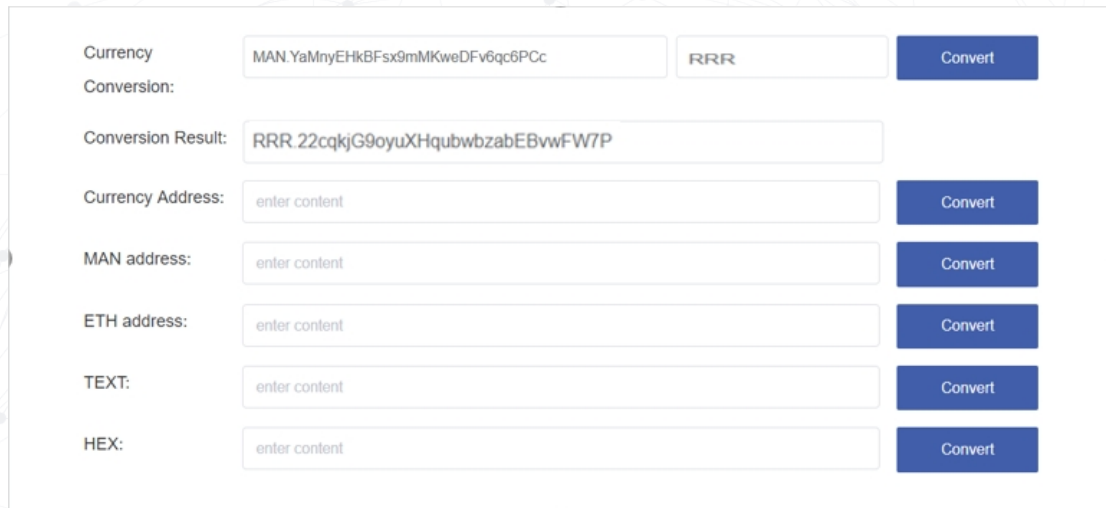
HEX:

enter content

Convert

## 11. Creating Multi-currency

### 11.1 Enter MAN address and Currency name Click **【Convert】**



Currency: MAN.YaMnyEHkBFsx9mMKweDFv6qc6PCc RRR Convert

Conversion:

Conversion Result: RRR.22cqkjG9oyuXHqubwbzabEBvwFW7P

Currency Address: enter content Convert

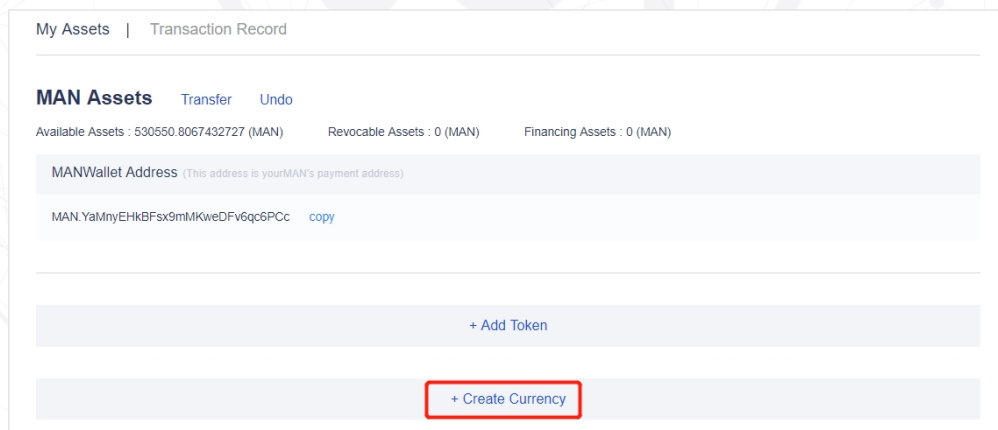
MAN address: enter content Convert

ETH address: enter content Convert

TEXT: enter content Convert

HEX: enter content Convert

### 11.2 Record the generated new currency address Click **【Create Currency】** in My Assets page.



My Assets | Transaction Record

**MAN Assets** Transfer Undo

Available Assets : 530550.8067432727 (MAN) Revocable Assets : 0 (MAN) Financing Assets : 0 (MAN)

MANWallet Address (This address is yourMAN's payment address)

MAN.YaMnyEHkBFsx9mMKweDFv6qc6PCc copy

+ Add Token

+ Create Currency

### 11.3 After entering the information Click **【Confirm】**

To create a currency, the balance of wallet address should be more than 100,000 MAN (if the system has more than 100 currencies, then 95,000 MAN), and 100,000 MAN will be automatically transferred to the designated account.

My Assets | Transaction Record

Create Currency

Currency Name

RRR

Receiving wallet address (new currency)

RRR.22cqkjG9oyuXHqubwbzabEBvwFW7P

New currency quantity

1000000

Enter any amount

+ Add address

Confirm

**11.4** Once created, you can see the currency you just generated in the currency drop-down list in My Assets page.

My Assets | Transaction Record

MAN Assets

Transfer

Undo

Available Assets : 530550.8067432727 (MAN)

Revocable Assets : 0 (MAN)

Financing Assets : 0 (MAN)

MANWallet Address (This address is yourMAN's payment address)

MAN.YaMnyEHkBFsx9mlMKweDFv6qc6PCc

copy

+ Add Token

+ Create Currency

RRRAssets

Transfer

Available Assets : 0 (RRR)

Revocable Assets : 0 (RRR)

Financing Assets : 0 (RRR)

RRRWallet Address (This address is yourRRR's payment address)

RRR.YaMnyEHkBFsx9mlMKweDFv6qc6PCW

copy

TEST

RRR

YONG

MMM

ZZZ

DMW

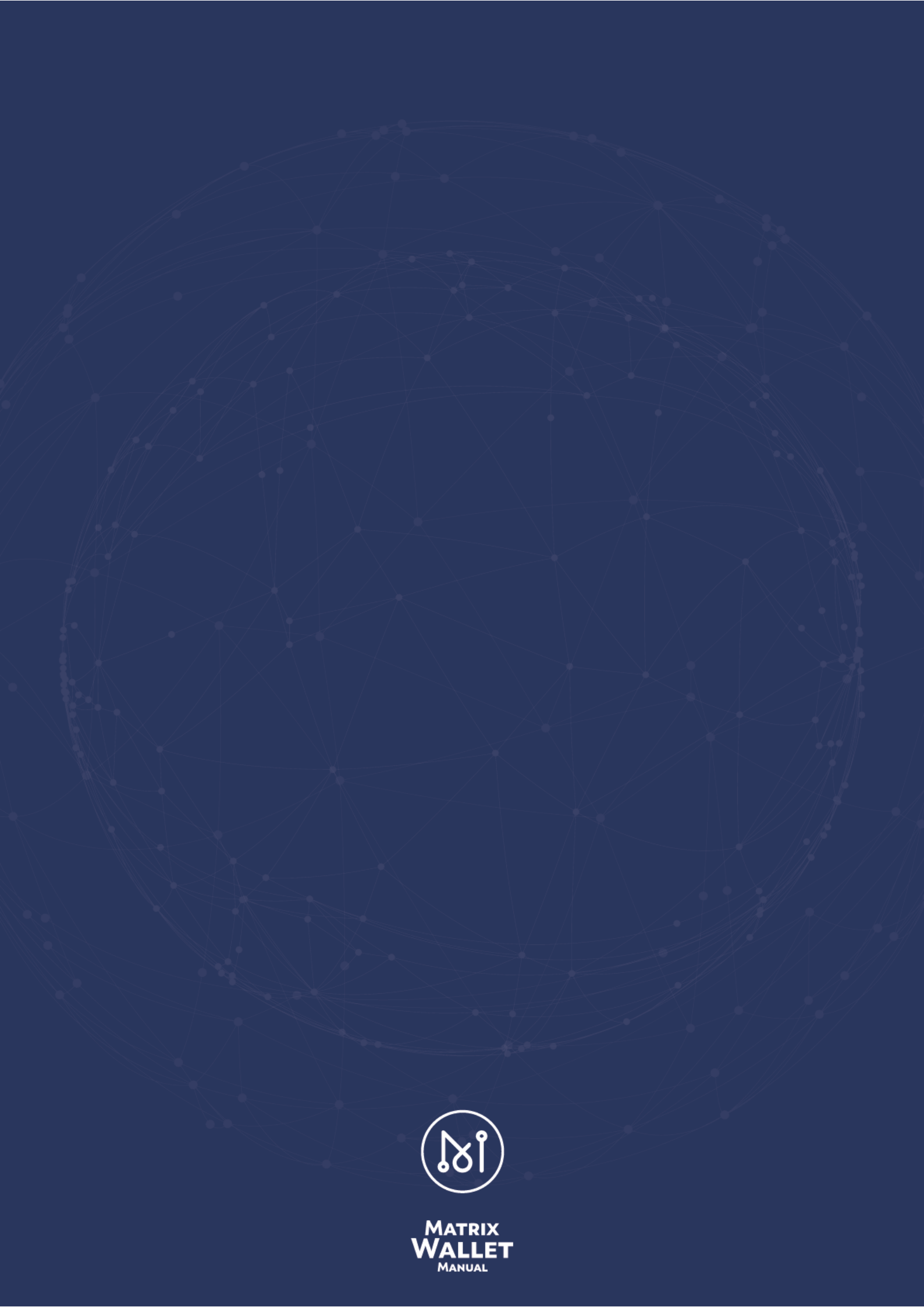
MATRIX

RRR

MATRIX

40





**MATRIX  
WALLET**  
MANUAL