

# IOCTL RFC

t.iotex.me/ioctl

ioctl is a command line interface for running commands against IoTEx blockchains. This overview covers basic ioctl syntax, describes the command operations, and provides common examples.

## Syntax

Use the following syntax to run ioctl commands from your terminal window:

**ioctl [resource] [verb] [param] [flags]**

- Resource: Specifies the resources, such as config, wallet, account, action, blockchain which can may have abbreviated forms.
- Verb: Specifies the operation that is performed against the resource.
- Parameters: Specifies parameters needed.
- Flags: Specifies optional flags.

## Config

Description: Set or get configuration for ioctl

Priority: **P2**

### ioctl config set|get endpoint url

Description: Set or get configuration for ioctl

Parameters:

- url - Endpoint url such as http://127.0.0.1:8080

Flags: N/A

### ioctl config set|get wallet

Description: Set or get wallet associated for ioctl

Parameters: N/A

Flags:

- -f, --file - Name of wallet file

### ioctl config get version

Description: Retrieve version information of ioctl

Parameters: N/A

Options: N/A

# Wallet

Description: Wallet contains one or more accounts/addresses

Priority: **P2**

## loctl wallet create

Description: Create a new wallet

Parameters: N/A

Flags:

- -f, --file - Name of file to write wallet password output to. (Must be set, unless "--to-console" is passed)
- --to-console - Print password to console

## loctl wallet open

Description: Open an existing wallet

Parameters: N/A

Flags:

- -f, --file - Name of file to write wallet password output to. (Must be set, unless "--to-console" is passed)

## loctl wallet list

Description: List all accounts within the wallet

Parameters: N/A

Flags: N/A

Example:

```
io13kcd2py
```

```
* io14f4cnru * indicates this account/keypair is currently active
```

```
io1clt9kz68
```

## loctl wallet lock

Description: Lock an existing account in the wallet

Parameters: name/string of the account to be locked

Flags: N/A

After lock success, the account become inactive, wallet won't be using its key anymore

## loctl wallet unlock

Description: Unlock an existing account in the wallet

Parameters: name/string of the account to be unlocked

Flags: N/A

After unlock success, all operations (like signing or verification) onwards will be using the active account's key

If there's a currently active key, that key will first be locked

## loctl wallet import

Description: Imports private key into wallet

Parameters: N/A

Flags:

- --private-key - Private key to import

## loctl wallet export

Description: Exports private key from a wallet

Parameters: N/A

Flags:

- -f, --file - Name of file to write wallet password output to. (Must be set, unless "--to-console" is passed)
- --to-console - Print password to console

## Account (a.k.a. Address)

Description: Deal with accounts that are in the open wallet

Priority: **P2**

### loctl account balance addr

Description: Get IOTX balance of the the given account

Parameters:

- addr - The name or the address of the account

Flags: N/A

### loctl account create

Description: Create a new key pair and print the public and private keys.

Parameters: N/A

Flags

- -f, --file - Name of file to write private/public key output to. (Must be set, unless "--to-console" is passed.)
- --to-console - Print private/public keys to console.

### loctl account createadd

Description: Create a new key pair and add to the wallet

Parameters: N/A

Flags: N/A

### loctl account del addr

Description: Delete one account from the wallet

Parameters:

- addr - The name or the address of the account

Flags: N/A

# Action

Description: Deal with actions

Priority: **P1**

## loctl action hash

Description: Retrieves an action given its hash

Parameters:

- hash - The hash of the action to retrieve

Flags: N/A

## loctl action transfer recipient amount data

Description: Transfer IOTX.

Parameters:

- recipient - The account receiving tokens
- amount - The amount of tokens to send and the token symbol
- data - The data payload for the transfer

Flags:

- -k,--private-key - The private key that will be used to sign the transaction
- -p,--push-transaction - Push transfer after signing
- -gl,--gas-limit - Specifies the gas limit of the action
- -gp,--gasprice - Specifies the gas price of transaction

## loctl action execute deploy

Description: Deploy the smart contract

Parameters: N/A

Flags:

- -c,--code - The bytecode
- -k,--private-key - The private key that will be used to sign the transaction
- -p,--push-transaction - Push transfer after signing
- -gl,--gas-limit - Specifies the gas limit of the action
- -gp,--gasprice - Specifies the gas price of transaction

## loctl action execute invoke

Description: Invoke a smart contract

Parameters: N/A

Flags:

- -c,--code - The bytecode
- -k,--private-key - The private key that will be used to sign the transaction
- -p,--push-transaction - Push transfer after signing
- -gl,--gas-limit - Specifies the gas limit of the action
- -gp,--gasprice - Specifies the gas price of transaction

# Blockchain (Abbreviation: bc)

loctl bc blockheader id

Description: Retrieves a full block from the blockchain.

**Priority: P1**

Parameters:

- id - The height or the hash of the block to retrieve

Options: N/A