

Tokens

Get a token object through the `getToken(tokenSymbol)` function on the `tokenService`.

The list of tokens that can be passed into `getToken()` are: SAI, MKR, WETH, PETH, ETH.

This list can also be obtained with `tokenService.getTokens()`. This function returns a string representation of the token symbol, e.g. 'SAI', which can also be passed into `getToken`.

When the Multi-Collateral Dai plugin is in use, `getToken('DAI')` will return a token object for Dai.

...

```
Copy const tokenService = maker.service('token');
const sai = tokenService.getToken('SAI');
const weth = tokenService.getToken('WETH');
const peth = tokenService.getToken('PETH');
```

...

Most of the methods below can be called on any token object. `deposit` and `withdraw` are for WETH only, and `join` and `exit` are for PETH only.

`allowance`

...

```
Copy const allowance = await dai.allowance('0x...owner', '0x...spender');
```

...

- Params:
- `tokenOwner`
- - address of token owner
- `spender`
- - address of token spender
- Returns: promise (resolves to token allowance)
-

`allowance` returns a [currency unit](#) representing the token allowance.

`balance`

...

```
Copy const balance = await dai.balance();
```

...

- Params: none
- Returns: promise (resolves balance of current account)
-

`balance` returns a [currency unit](#) representing the token balance of the current account

`balanceOf`

...

```
Copy const balanceOf = await dai.balanceOf('0x...f00');
```

...

- Params: address to check
- Returns: promise (resolves balance of address)
-

`balanceOf` returns a [currency unit](#) representing the token balance of the supplied account.

`totalSupply`

...

```
Copy consttotalSupply=awaitdai.totalSupply();
```

...

- Params: none
- Returns: promise (resolves total supply of token)
-

totalSupply returns [a currency unit](#) representing the total token supply

approve

...

```
Copy returnawaitdai.approve('0x...f00',DAI(10));
```

...

- Params:
- spender - address of token spender
- amount - amount of token to allow
- Returns: promise (resolves to [transactionObject](#) once mined)
-

approve approves the spending address to spend up to amount of msg.sender 's tokens.

approveUnlimited

...

```
Copy returnawaitdai.approveUnlimited('0x...f00');
```

...

- Params: address of token spender
- Returns: promise (resolves to [transactionObject](#) once mined)
-

approveUnlimited approves the spending address to spend the maximum amount of msg.sender 's tokens.

transfer

...

```
Copy returnawaitdai.transfer('0x...f00',DAI(10));
```

...

- Params:
- to - address to send to
- amount - amount of token to send
- Returns: promise (resolves to [transactionObject](#) once mined)
-

transfer transfers amount of token to address.

transferFrom

...

```
Copy returnawaitdai.transferFrom('0x...fr0m','0x...t0',DAI(10));
```

...

- Params:
- from - address to send tokens from
- to - address to send to

- amount - amount of token to send
- Returns: promise (resolves to [transactionObject](#)
- once mined)
-

transferFrom() transfers amount of token from from address to to address. Transaction will fail if msg.sender does not have allowance to transfer the amount of tokens from the from address.

deposit (WETH only)

...

Copy return await weth.deposit(ETH(10));

...

- Params: amount of Eth to deposit
- Returns: promise (resolves to [transactionObject](#)
- once mined)
-

deposit converts amount of Eth to amount of Weth.

withdraw (WETH only)

...

Copy return await weth.withdraw(WETH(10));

...

- Params: amount of Weth to withdraw
- Returns: promise (resolves to [transactionObject](#)
- once mined)
-

withdraw converts amount of Weth to amount of Eth.

join (PETH only)

...

Copy return await peth.join(WETH(10));

...

- Params: amount of Weth to join
- Returns: promise (resolves to [transactionObject](#)
- once mined)
-

join converts amount of Weth to Peth, at the [Weth to Peth Ratio](#) .

exit (PETH only)

...

Copy return await peth.exit(PETH(10));

...

- Params: amount of Peth to exit
- Returns: promise (resolves to [transactionObject](#)
- once mined)
-

withdraw converts amount of Peth to Weth, at the [Weth to Peth Ratio](#) .

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