Ethereum Contract Documentation

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Overview

This library provides a python object for interacting with contracts on the Ethereum network.

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Contracts

• eth_contract.Contract(contract_meta, contract_name):

This function returns a python class for the provided contract data. It will have functions for each of the defined functions in the provided contract ABI.

The Contract Class

• ContractClass(address, blockchain_client)

The python class returned from eth_contract. Contract takes an ethereum address and a blockchain client as constructor arguments. This returns an instance of your contract that can be used to interact with the contract via the provided blockchain_client

• ContractClass.get_deploy_data(*constructor_args)

This *classmethod* will return the hex encoded data for deploying this contract.

• ContractClass._meta.code

The compiled contract code.

• ContractClass._meta.source

The contract source code.

• ContractClass._meta.blockchain_client

The blockchain client this contract will use to interact with the blockchain.

• ContractClass._meta.abi

The contract ABI.

• ContractClass.get_balance(block="latest")

Returns contract balance in wei as an integer.

Contract Functions

For each function defined in the contract ABI there will be a callable property by the same name on the contract object. Each of these functions accepts the following additional keyword arguments in addition to the function arguments.

- value sends the provided value in wei with the transaction.
- _from the ethereum address that the transaction should be sent from.
- gas specifies the gas value of the transaction.
- gas_price the gas price for the transaction.

Functions which are denoted as constant will not send transactions when called and will return the return value of the called contract function.

Non-constant functions will send a transaction when called and will return the transaction hash of the created transaction.

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