Estimate UserOperation Gas

eth_estimateUserOperationGas

This endpoint is used to estimate the gas values for a UserOperation. Request constitutes given UserOperation optionally without gas limits and gas prices & returns the needed gas limits. The signature field is ignored by the wallet, so that the operation will not require user's approval. It still requires putting a "semi-valid" signature (e.g. a signature in the right length).

Parameters

Body

Param Type Description Required method string Name of method in this case: eth_estimateUserOperationGas Required params array An array consisting of the Useroperation object, Bundler address and an optional State Override Set Required id string id for request determined by client for JSON RPC requests Required jsonrpc string JSON RPC version in this case 2.0.0 Required * Same as eth_sendUserOperation gas limits (and prices) parameters are optional, but are used if specified. * Optionally accepts the State Override Set to allow users to modify the state during the gas estimation. * This field as well as its behavior is equivalent to the ones defined for eth_call RPC method. * The interface for State Override Set is the same for a regulareth_call

Request

{ "method": "eth_estimateUserOperationGas", "params": [{ "sender": "0x5A927A01a32cE02AF4B438b7848BceBc52C8Ea3e", "nonce": "0x1b", "initCode": "0x", "callData": "0x0000189a00000000000000000000000001758f42af7026fbbb559dc60ece0de3ef81f665e00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000 "signature": "0x000000000000000000000000000000000000000000000000000000000000000000000004000000000000000000000000000001c5b32F37F5beA87BDD5374eB2aC54eA8e00000000000000000000000000000000 "paymasterAndData": "0x" }, "0x5ff137d4b0fdcd49dca30c7cf57e578a026d2789"], "id": 1697033406, "jsonrpc": "2.0" }

Response

info Please note that the callGasLimit, verificationGasLimit and preVerificationGas returned here are numbers buteth_sendUserOperation expects them as a string. This is a known bug which will be fixed in a future version release. { "jsonrpc": "2.0", "id": 1697033406, "result": { "callGasLimit": 77217, "verificationGasLimit": 86895, "preVerificationGas": 772931, "validUntil": "0xffffffffffff", "validAfter": "0x00", "maxPriorityFeePerGas": "100000000", "maxFeePerGas": "100000000" } }