京东区块链浏览器 API

1. 全局异常应答

Response	```{ "error": { "errorCode": 500, "errorMessage": "this is an error message" }, "success": false }```
Response Instruction	errorCode：业务异常状态码，非 Http 应答码； errorMessage：异常说明

该应答为全局异常应答，正确的应答在下述对应的章节中。

2. 获取账本列表

URL	/ledgers
Method	GET
Response	```{ "data": [{ "value": "67nubBh1nBtv9otJTkWw89WXSq7XnxshL74u33f5ipNYS" }, { "value": "6EqXXS9c1njm6XPorwgstGLd1rdAywbQKrTfoaxe4SYY9" }], "success": true }```
Response Instruction	value 为账本 Hash 的 Base58 编码结果

3. 获取指定账本信息

URL	/ledgers/{ledgerHash}
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果
Response	```{ "data": { "adminInfo": { "metadata": { "participantsHash": { "value": "F4evU3YyKryMCBNsrPg7NwBz1NX"```

```json
                },
                "seed": "amQ=",
                "setting": {
                    "consensusSetting": {
                        "hostSettingValue": "Z2V0SG9zdFNldHRpbmdWYWx1ZQ==",
                        "systemSettingValue": "Z2V0U3lzdGVtU2V0dGluZ1ZhbHVl"
                    },
                    "cryptoSetting": {
                        "autoVerifyHash": false,
                        "hashAlgorithm": "SHA256"
                    }
                }
            },
            "participantCount": 1234
        },
        "hash": {
            "value": "3uqhFboGY1M"
        },
        "latestBlock": {
            "adminAccountHash": {
                "value": "SpXTn"
            },
            "contractAccountSetHash": {
                "value": "SpXTq"
            },
            "dataAccountSetHash": {
                "value": "SpXTo"
            },
            "hash": {
                "value": "fPcnPW1xx"
            },
            "height": 1000,
            "previousHash": {
                "value": "2y1mCD6"
            },
            "transactionSetHash": {
                "value": "3vZUqf6yrKn"
            },
            "userAccountSetHash": {
                "value": "SpXTp"
            }
        },
        "latestBlockHash": {
            "value": "4BoCfJESYPMpDBZVNgKN1j9vuD"
        },
        "latestBlockHeight": 26266,
        "nextBlockEditor": {}
    },
    "success": true
```

	}
Response Instruction	

4. 获取成员列表

URL	/ledgers/{ledgerHash}/participants
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果
Response	<pre>{
"data": [
{
"hostAddress": {
"host": "172.62.35.123",
"port": 5566,
"secure": true
},
"pubKey": {
"value": "UUM8Ku9aypHYnNkJRuFnkEYSuXT"
},
"id": 0,
"name": "jd1"
},
{
"hostAddress": {
"host": "172.62.35.230",
"port": 7788,
"secure": false
},
"pubKey": {
"value": "S76SHyu8p164"
},
"id": 1,
"name": "jd2"
}
],
"success": true
}</pre>
Response Instruction	

5. 获取最新区块

URL	/ledgers/{ledgerHash}/blocks/latest
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	　　"data": {
	　　　　"adminAccountHash": {
	　　　　　　"value": "SpXTn"
	　　　　},
	　　　　"contractAccountSetHash": {
	　　　　　　"value": "SpXTq"
	　　　　},
	　　　　"dataAccountSetHash": {
	　　　　　　"value": "SpXTo"
	　　　　},
	　　　　"hash": {
	　　　　　　"value": "fPcnPW1xx"
	　　　　},
	　　　　"height": 12358,
	　　　　"ledgerHash": {
	　　　　　　"value": "6GNP3H3WjGeQ7kbyu6LFhRtpmkdiTi7ENEpuLW1FJjwgu"
	　　　　},
	　　　　"previousHash": {
	　　　　　　"value": "2y1mCD6"
	　　　　},
	　　　　"transactionSetHash": {
	　　　　　　"value": "3vZUqf6yrKn"
	　　　　},
	　　　　"userAccountSetHash": {
	　　　　　　"value": "SpXTp"
	　　　　}
	　　},
	　　"success": true
	}

Response Instruction	data 中的 height 为最新区块的高度

6. 获取交易总数

URL	/ledgers/{ledgerHash}/txs/count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	　　"data": 123,
	　　"success": true
	}

Response Instruction	data 为当前账本交易总数

7. 获取合约总数

URL	/ledgers/{ledgerHash}/contracts/count

Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 789,
	    "success": true
	}

Response Instruction	data 为当前账本合约总数

8. 获取用户总数

URL	/ledgers/{ledgerHash}/users/count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 100,
	    "success": true
	}

Response Instruction	data 为当前账本用户总数

9. 获取账户总数

URL	/ledgers/{ledgerHash}/accounts/count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 200,
	    "success": true
	}

Response Instruction	data 为当前账本账户总数

10. 获取某个区块新增交易数量

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight}/txs/additional-count 或 /ledgers/{ledgerHash}/blocks/hash/{blockHash}/txs/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果；

	{ blockHeight }：区块高度

Response	{
	    "data": 300,
	    "success": true
	}

Response Instruction	data 为当前账本新增交易数量（即最新区块包含交易数量）

11. 获取新增交易数量

URL	/ledgers/{ledgerHash}/txs/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 300,
	    "success": true
	}

Response Instruction	data 为当前账本新增交易数量（即最新区块包含交易数量）

12. 获取某个区块新增账户数量

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight}/accounts/additional-count 或 /ledgers/{ledgerHash}/blocks/hash/{blockHash}/accounts/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果； { blockHeight }：区块高度

Response	{
	    "data": 300,
	    "success": true
	}

Response Instruction	data 为当前账本新增账户数量（即最新区块包含账户数量）

13. 获取新增账户数量

URL	/ledgers/{ledgerHash}/accounts/additional-count
Method	GET

Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 400,
	    "success": true
	}

Response Instruction	data 为当前账本新增账户数量（即最新区块增加账户数量）

14. 获取某个区块新增用户数量

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight}/users/additional-count 或 /ledgers/{ledgerHash}/blocks/hash/{blockHash}/users/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果； { blockHeight }：区块高度

Response	{
	    "data": 300,
	    "success": true
	}

Response Instruction	data 为当前账本新增交易数量（即最新区块包含用户数量）

15. 获取新增用户数量

URL	/ledgers/{ledgerHash}/users/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 400,
	    "success": true
	}

Response Instruction	data 为当前账本新增用户数量

16. 获取某个区块新增合约数量

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight}/contracts/additional-count 或

	/ledgers/{ledgerHash}/blocks/hash/{blockHash}/contracts/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果； { blockHeight }：区块高度

Response	{
	    "data": 300,
	    "success": true
	}

Response Instruction	data 为当前账本新增合约数量（即最新区块包含合约数量）

17. 获取新增合约数量

URL	/ledgers/{ledgerHash}/contracts/additional-count
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果

Response	{
	    "data": 400,
	    "success": true
	}

Response Instruction	data 为当前账本新增合约数量

18. 获取用户详情

URL	/ledgers/{ledgerHash}/users/{address}
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { address }：用户地址

Response	{
	    "data": {
	        "address": "www.jdchain.user.jd.com",
	        "pubKey": {
	            "value": "sR4AF"
	        }
	    },
	    "success": true
	}

Response Instruction	

19. 获取账户详情

URL	/ledgers/{ledgerHash}/accounts/{address}
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { address }：账户地址

Response	```json
	{
	    "data": {
	        "address": "www.jdchain.dataaccount.jd.com",
	        "pubKey": {
	            "value": "UUi8Ku8aypHYnNkJRuFnkEYSuXT"
	        }
	    },
	    "success": true
	}
	``

Response Instruction	

20. 获取合约详情

URL	/ledgers/{ledgerHash}/contracts/{address}
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { address }：合约地址

Response	```json
	{
	    "data": {
	        "address": "www.jdchain.contract.jd.com",
	        "chaincodeVersion": 1,
	        "pubKey": {
	            "value": " UUi8Ku8aypHYnNkJRuFnkEYSuXT"
	        }
	    },
	    "success": true
	}
	``

Response Instruction	

21. 获取指定区块详情

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight} 或 /ledgers/{ledgerHash}/blocks/hash/{blockHash}
Method	GET

Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果； { blockHeight }：区块高度

Response	`{`
	    `"data": {`
	        `"adminAccountHash": {`
	            `"value": "SpXTn"`
	        `},`
	        `"contractAccountSetHash": {`
	            `"value": "SpXTq"`
	        `},`
	        `"dataAccountSetHash": {`
	            `"value": "SpXTo"`
	        `},`
	        `"hash": {`
	            `"value": "fPcnPW1xx"`
	        `},`
	        `"height": 12358,`
	        `"ledgerHash": {`
	            `"value": "6GNP3H3WjGeQ7kbyu6LFhRtpmkdiTi7ENEpuLW1FJjwgu"`
	        `},`
	        `"previousHash": {`
	            `"value": "2y1mCD6"`
	        `},`
	        `"transactionSetHash": {`
	            `"value": "3vZUqf6yrKn"`
	        `},`
	        `"userAccountSetHash": {`
	            `"value": "SpXTp"`
	        `}`
	    `},`
	    `"success": true`
	`}`

Response Instruction	

22. 获取指定交易详情

URL	/ledgers/{ledgerHash}/txs/{contentHash}
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { contentHash }：交易内容 Hash 的 Base58 编码结果
Response	`{` `"data": {`

```json
        "adminAccountHash": {
            "value": "2y1mCD6"
        },
        "blockHeight": 123456,
        "contractAccountSetHash": {
            "value": "9h2UYTxc"
        },
        "dataAccountSetHash": {
            "value": "3vZUqf6yrKn"
        },
        "endpointSignatures": [{
            "digest": {
                "algorithm": "ED25519",
                "rawDigest": "emhhbmdzYW4="
            },
            "pubKey": {
                "value": "S76SHyu8p164"
            }
        }, {
            "digest": {
                "algorithm": "ED25519",
                "rawDigest": "bGlzaQ=="
            },
            "pubKey": {
                "value": "S76SHz1gLqEL"
            }
        }],
        "executionState": "SUCCESS",
        "hash": {
            "value": "DuQMsm4j3GeZ"
        },
        "nodeSignatures": [{
            "digest": {
                "algorithm": "ED25519",
                "rawDigest": "d2FuZ3d1"
            },
            "pubKey": {
                "value": "S76SHz8DsfNc"
            }
        }, {
            "digest": {
                "algorithm": "ED25519",
                "rawDigest": "emhhb2xpdQ=="
            },
            "pubKey": {
                "value": "S76SHzEmQVWt"
            }
        }],
        "transactionContent": {
```

```json
            "hash": {
                "value": "fH9d8BYxU"
            },
            "ledgerHash": {
                "value": "6EqXXS9c1njm6XPorwgstGLd1rdAywbQKrTfoaxe4SYY9"
            },
            "operations": [{
                "accountAddress": "31xnWp5RYLThS47S6yfwqbUW3toZrw5Mm3t",
                "writeSet": [{
                    "expectedVersion": 25,
                    "key": "Name",
                    "value": "QUFB"
                }]
            }, {
                "addressSignature": {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "d2FuZ3d1"
                    },
                    "pubKey": {
                        "value": "6gtyw9HjZbi"
                    }
                },
                "chainCode": "emhhbmdzYW4=",
                "contractID": {
                    "address": "31kiRWCxNm8tYxhFK5wnDp3wNxLCuiVyDA7",
                    "pubKey": {
                        "value": "KXywstVY1tEAgEsc7kox48L"
                    }
                }
            }, {
                "args": "YXJncw==",
                "contractAddress": "contract-address",
                "event": "contract-event"
            }, {
                "accountID": {
                    "address": "31r5f9D8kCxkiat2GvRJfjNi1fnFvaWaBEu",
                    "pubKey": {
                        "value": "5CYw7ztKJRxVt6Mfgz6vSQ"
                    }
                },
                "addressSignature": {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "emhhb2xpdQ=="
                    },
                    "pubKey": {
                        "value": "6gtyw9HjZbi"
                    }
                }
```

```
                    }
                }, {
                    "userID": {
                        "address": "321ZeecJ99N7RJGSHkRqkfBZDEAxRMHd6d5",
                        "pubKey": {
                            "value": "3qHAWiGwaF6FU2o7Lg"
                        }
                    }
                }]
            },
            "userAccountSetHash": {
                "value": "fPcnPW1xx"
            }
        },
        "success": true
    }
```

Response Instruction	

23. 获取指定区块交易列表

URL	/ledgers/{ledgerHash}/blocks/height/{blockHeight}/txs? fromIndex=xx&count=yy 或 /ledgers/{ledgerHash}/blocks/hash/{blockHash}/txs? fromIndex=xx&count=yy
Method	GET
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { blockHash }：区块 Hash 的 Base58 编码结果； { blockHeight }：区块高度； fromIndex：起始指针（针对该区块）； count：要查询的交易数量

Response	`{`
	`    "data": [{`
	`        "adminAccountHash": {`
	`            "value": "2y1mCD6"`
	`        },`
	`        "blockHeight": 123456,`
	`        "contractAccountSetHash": {`
	`            "value": "9h2UYTxc"`
	`        },`
	`        "dataAccountSetHash": {`
	`            "value": "3vZUqf6yrKn"`
	`        },`
	`        "endpointSignatures": [{`

```
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "emhhbmdzYW4="
                    },
                    "pubKey": {
                        "value": "S76SHyu8p164"
                    }
                }, {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "bGlzaQ=="
                    },
                    "pubKey": {
                        "value": "S76SHz1gLqEL"
                    }
                }],
                "executionState": "SUCCESS",
                "hash": {
                    "value": "DuQMsm4j3GeZ"
                },
                "nodeSignatures": [{
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "d2FuZ3d1"
                    },
                    "pubKey": {
                        "value": "S76SHz8DsfNc"
                    }
                }, {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "emhhb2xpdQ=="
                    },
                    "pubKey": {
                        "value": "S76SHzEmQVWt"
                    }
                }],
                "transactionContent": {
                    "hash": {
                        "value": "fH9d8BYxU"
                    },
                    "ledgerHash": {
                        "value": "6EqXXS9c1njm6XPorwgstGLd1rdAywbQKrTfoaxe4SYY9"
                    },
                    "operations": [{
                        "accountAddress": "31xnWp5RYLThS47S6yfwqbUW3toZrw5Mm3t",
                        "writeSet": [{
                            "expectedVersion": 25,
                            "key": "Name",
```

```
                    "value": "QUFB"
                }]
        }, {
            "addressSignature": {
                "digest": {
                    "algorithm": "ED25519",
                    "rawDigest": "d2FuZ3d1"
                },
                "pubKey": {
                    "value": "6gtyw9HjZbi"
                }
            },
            "chainCode": "emhhbmdzYW4=",
            "contractID": {
                "address": "31kiRWCxNm8tYxhFK5wnDp3wNxLCuiVyDA7",
                "pubKey": {
                    "value": "KXywstVY1tEAgEsc7kox48L"
                }
            }
        }, {
            "args": "YXJncw==",
            "contractAddress": "contract-address",
            "event": "contract-event"
        }, {
            "accountID": {
                "address": "31r5f9D8kCxkiat2GvRJfjNi1fnFvaWaBEu",
                "pubKey": {
                    "value": "5CYw7ztKJRxVt6Mfgz6vSQ"
                }
            },
            "addressSignature": {
                "digest": {
                    "algorithm": "ED25519",
                    "rawDigest": "emhhb2xpdQ=="
                },
                "pubKey": {
                    "value": "6gtyw9HjZbi"
                }
            }
        }, {
            "userID": {
                "address": "321ZeecJ99N7RJGSHkRqkfBZDEAxRMHd6d5",
                "pubKey": {
                    "value": "3qHAWiGwaF6FU2o7Lg"
                }
            }
        }]
    },
    "userAccountSetHash": {
```

```json
                    "value": "fPcnPW1xx"
                }
            },
            {
                "adminAccountHash": {
                    "value": "2y1mCD6"
                },
                "blockHeight": 123456,
                "contractAccountSetHash": {
                    "value": "9h2UYTxc"
                },
                "dataAccountSetHash": {
                    "value": "3vZUqf6yrKn"
                },
                "endpointSignatures": [{
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "emhhbmdzYW4="
                    },
                    "pubKey": {
                        "value": "S76SHyu8p164"
                    }
                }, {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "bGlzaQ=="
                    },
                    "pubKey": {
                        "value": "S76SHz1gLqEL"
                    }
                }],
                "executionState": "SUCCESS",
                "hash": {
                    "value": "DuQMsm4j3GeZ"
                },
                "nodeSignatures": [{
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "d2FuZ3d1"
                    },
                    "pubKey": {
                        "value": "S76SHz8DsfNc"
                    }
                }, {
                    "digest": {
                        "algorithm": "ED25519",
                        "rawDigest": "emhhb2xpdQ=="
                    },
                    "pubKey": {
```

```json
                            "value": "S76SHzEmQVWt"
                        }
                }],
            "transactionContent": {
                "hash": {
                    "value": "fH9d8BYxU"
                },
                "ledgerHash": {
                    "value": "6EqXXS9c1njm6XPorwgstGLd1rdAywbQKrTfoaxe4SYY9"
                },
                "operations": [{
                    "accountAddress": "31xnWp5RYLThS47S6yfwqbUW3toZrw5Mm3t",
                    "writeSet": [{
                        "expectedVersion": 25,
                        "key": "Name",
                        "value": "QUFB"
                    }]
                }, {
                    "addressSignature": {
                        "digest": {
                            "algorithm": "ED25519",
                            "rawDigest": "d2FuZ3d1"
                        },
                        "pubKey": {
                            "value": "6gtyw9HjZbi"
                        }
                    },
                    "chainCode": "emhhbmdzYW4=",
                    "contractID": {
                        "address": "31kiRWCxNm8tYxhFK5wnDp3wNxLCuiVyDA7",
                        "pubKey": {
                            "value": "KXywstVY1tEAgEsc7kox48L"
                        }
                    }
                }, {
                    "args": "YXJncw==",
                    "contractAddress": "contract-address",
                    "event": "contract-event"
                }, {
                    "accountID": {
                        "address": "31r5f9D8kCxkiat2GvRJfjNi1fnFvaWaBEu",
                        "pubKey": {
                            "value": "5CYw7ztKJRxVt6Mfgz6vSQ"
                        }
                    },
                    "addressSignature": {
                        "digest": {
                            "algorithm": "ED25519",
                            "rawDigest": "emhhb2xpdQ=="
```

```
                },
                    "pubKey": {
                        "value": "6gtyw9HjZbi"
                    }
                }
            }, {
                "userID": {
                    "address": "321ZeecJ99N7RJGSHkRqkfBZDEAxRMHd6d5",
                    "pubKey": {
                        "value": "3qHAWiGwaF6FU2o7Lg"
                    }
                }
            }]
        },
        "userAccountSetHash": {
            "value": "fPcnPW1xx"
        }
    }],
    "success": true
}
```

Response Instruction	

24. 获取指定账户存储集合

URL	/ledgers/{ledgerHash}/accounts/{address}/entries?keys=xx&keys=yy
Method	**POST**
Request Instruction	{ ledgerHash }：账本 Hash 的 Base58 编码结果； { address }：账户地址； keys：表单方式按顺序提交
| Response | ```
{
    "data": [
        {
            "key": "key1",
            "nil": false,
            "type": "TEXT",
            "value": "value1",
            "version": 1
        },
        {
            "key": "key2",
            "nil": false,
            "type": "TEXT",
            "value": "value2",
            "version": 2
        }
``` |

	], "success": true }
Response Instruction	