

SDChain-Core 基本操作命令

1 创建账号

1.1 请求

```
sdchaind -q wallet_propose
```

1.2 应答

```
{
  "id" : 1,
  "result" : {
    "account_id" : "6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2",
    "key_type" : "secp256k1",
    "master_key" : "SHAG MUFF HOG RUN BUY MATE BURR FLED FOLK FIRM POT GELD",
    "master_seed" : "spyrAcnr[REDACTED]u2FME[REDACTED]uAL ",
    "master_seed_hex" : "144D7340104EF060719BC09C6E04D8D9",
    "public_key" : "aB4zQ7PUQQfpHat2cD5bhJNx4hxxpK8mvC4x6i5LeHvzb6uiuQyw",
    "public_key_hex" : "028805585F504A0BD34C6923F4899F7306A8520ACE5188EC1EAF8F0923C7617789",
    "status" : "success"
  }
}
```

注释：

账户地址：6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2

账户私钥：spyrAcnr[REDACTED]u2FME[REDACTED]uAL

其中账户地址固定以“6”为首字母，账户私钥固定以“s”为首字母。

1.3 查询账户信息

```
sdchaind -q account_info 6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2
```

1.4 结果应答

```
{
```

```

    "id" : 1,
    "result" : {
      "account" : "6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2",
      "error" : "actNotFound",
      "error_code" : 18,
      "error_message" : "Account not found.",
      "ledger_current_index" : 79823,
      "request" : {
        "account" : "6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2",
        "command" : "account_info"
      },
      "status" : "error",
      "validated" : false
    }
  }
}

```

注释：新创建的账号，并没有被激活，所以它并不存在区块链上。因此，查询报道这个账号的信息。

2 激活账号

2.1 交易请求

激活一个账号，目前需要这个账号最低保留 5 个 SDA。只需要用有 SDA 的账号向需要激活的账号发送 5 个 SDA 即可。

```

sdchaind -q submit snoPB6XtM...qAfg1SUTb
'{"TransactionType":"Payment","Account":"6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh","Amount":"5000000","Destination":"6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2"}'

```

SDA 的最小单位为 Drops，

1 SDA = 1, 000, 000 Drops。

2.2 交易应答

```

{
  "id" : 1,
  "result" : {
    "engine_result" : "tesSUCCESS",
    "engine_result_code" : 0,
    "engine_result_message" : "The transaction was applied. Only final in a validated ledger.",
    "status" : "success",
  }
}

```

```

      "tx_blob" :
      "1200002280000000240000000761400000000BEBC20068400000000000000A73210330E7FC
      9D56BB25D6893BA3F317AE5BCF33B3291BD63DB32654A313222F7FD02074463044022036C6
      EBBC75DC23838D0B2E848B3E9F6DF32D49BF02176185190BD14338E3054002203B82804999
      C3346D090362702A685E5CA4C3892EA48EC45C111D4CDFB31085CF8114B5F762798A53D543
      A014CAF8B297CFF8F2F937E883146C13D558CA63C039B027F0336E66F7454D3B1ECB",
      "tx_json" : {
        "Account" : "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
        "Amount" : "5000000",
        "Destination" : "6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2",
        "Fee" : "10",
        "Flags" : 2147483648,
        "Sequence" : 7,
        "SigningPubKey" :
        "0330E7FC9D56BB25D6893BA3F317AE5BCF33B3291BD63DB32654A313222F7FD020",
        "TransactionType" : "Payment",
        "TxnSignature" :
        "3044022036C6EBBC75DC23838D0B2E848B3E9F6DF32D49BF02176185190BD14338E305400
        2203B82804999C3346D090362702A685E5CA4C3892EA48EC45C111D4CDFB31085CF",
        "hash" :
        "0C4A44192EC3B2D72F8FFA9073DEC702C9BFDf2CB57615D976F6F5A534448742"
      }
    }
  }
}

```

2.3 再次查询账号

```
sdchaind -q account_info 6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2
```

2.4 查询应答

```

{
  "id" : 1,
  "result" : {
    "account_data" : {
      "Account" : "6wiTjmQBnSwo1WekLYD46BfGLKKgiMryS2",
      "Balance" : "5000000",
      "Flags" : 0,
      "LedgerEntryType" : "AccountRoot",
      "OwnerCount" : 0,
      "PreviousTxnID" :

```

```

"0C4A44192EC3B2D72F8FFA9073DEC702C9BDF2CB57615D976F6F5A534448742",
  "PreviousTxnLgrSeq" : 79939,
  "Sequence" : 1,
  "index" :
  "B8500C7D56DCA3E838A8187C706DCB85AE07D94A177353BCC43DED10B76072EC"
},
"ledger_current_index" : 79984,
"status" : "success",
"validated" : false
}
}

```

3 普通的交易

3.1 交易请求

```

sdchaind -q submit ss3ZBtH. [redacted] ryGE4Kuf
'{"TransactionType": "Payment", "Account": "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA", "Amount": "100000", "Destination": "64tWfk1p355SXFkQzidknmZhNaiskcxbZ"}'

```

注释：

Submit 为命令参数：

ss3ZE [redacted] Pq9ryGE4Kuf 为源账户私钥

6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA 为源账户地址

64tWfk1p355SXFkQzidknmZhNaiskcxbZ 为目标账户地址

Payment 为交易类型

100000 为交易金额，单位为 drops。

3.2 交易应答

```

{
  "id" : 1,
  "result" : {
    "engine_result" : "tesSUCCESS",
    "engine_result_code" : 0,
    "engine_result_message" : "The transaction was applied. Only final in a validated ledger.",
    "status" : "success",
  }
}

```

```

      "tx_blob" :
      "120000228000000024000000376140000000000186A0684000000000000000A732103EAC169
      AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C87447304502210091
      7A31B5AC1A38CA79BCFE35442D8615067CB1A64037500137B4F0F224FD08360220306D7292
      DBBDE99B6DC7740B5D21E5C32E395E190F040641FAD1F21742A455A781142E244E6F20104E
      57C0C60BD823CB312BF10928C78314F0182925994B6A50B795814CB6FE8FBF40AE2015",
      "tx_json" : {
        "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
        "Amount" : "100000",
        "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxbZ",
        "Fee" : "10",
        "Flags" : 2147483648,
        "Sequence" : 55,
        "SigningPubKey" :
        "03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",
        "TransactionType" : "Payment",
        "TxnSignature" :
        "3045022100917A31B5AC1A38CA79BCFE35442D8615067CB1A64037500137B4F0F224FD083
        60220306D7292DBBDE99B6DC7740B5D21E5C32E395E190F040641FAD1F21742A455A7",
        "hash" :
        "3BA64F565592AAA2631E85BAC76499F63A21C46200E827C7FAB7A0A5212375ED"
      }
    }
  }
}

```

3.3 结果查询

| | | |
|--|----|----|
| sdchaind | -q | tx |
| 3BA64F565592AAA2631E85BAC76499F63A21C46200E827C7FAB7A0A5212375ED | | |

3.4 结果应答

```

{
  "id" : 1,
  "result" : {
    "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
    "Amount" : "100000",
    "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxbZ",
    "Fee" : "10",
    "Flags" : 2147483648,
    "Sequence" : 55,

```

```

    "SigningPubKey" :
    "03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",
    "TransactionType" : "Payment",
    "TxnSignature" :
    "3045022100917A31B5AC1A38CA79BCFE35442D8615067CB1A64037500137B4F0F224FD083
    60220306D7292DBBDE99B6DC7740B5D21E5C32E395E190F040641FAD1F21742A455A7",
    "date" : 565759612,
    "hash" :
    "3BA64F565592AAA2631E85BAC76499F63A21C46200E827C7FAB7A0A5212375ED",
    "inLedger" : 242329,
    "ledger_index" : 242329,
    "meta" : {
      "AffectedNodes" : [
        {
          "ModifiedNode" : {
            "FinalFields" : {
              "Account" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
              "Balance" : "200199980",
              "Flags" : 0,
              "OwnerCount" : 1,
              "Sequence" : 3
            },
            "LedgerEntryType" : "AccountRoot",
            "LedgerIndex" :
    "6E1082BBEB2F4BF8B7AF06A8E3D21D1F6AFBF4224C3ECD0CF6FEF533C8866A2D",
            "PreviousFields" : {
              "Balance" : "200099980"
            },
            "PreviousTxnID" :
    "787F2C289E2C00AF53040F7902F290F86006674B6DB072178265878AEA49660B",
            "PreviousTxnLgrSeq" : 69126
          }
        },
        {
          "ModifiedNode" : {
            "FinalFields" : {
              "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
              "Balance" : "399775470",
              "Flags" : 8388608,
              "OwnerCount" : 1,
              "Sequence" : 56
            },
            "LedgerEntryType" : "AccountRoot",
            "LedgerIndex" :

```

```

"AA22EEB13821659B8316218C1D78606FD9C57C3192C2104EB7B0920AA30FF6C6",
    "PreviousFields": {
        "Balance": "399875480",
        "Sequence": 55
    },
    "PreviousTxnID" :
"CA3D11C02B6353E757BBCB6C2CFD3E6EEA562057C09417BDF348212F64A34D38",
    "PreviousTxnLgrSeq": 242019
    }
    }
    ],
    "TransactionIndex": 0,
    "TransactionResult": "tesSUCCESS",
    "delivered_amount": "100000"
},
"status": "success",
"validated": true
}
}

```

4 带有一个 Memo 的交易

4.1 交易请求

交易过程中添加一个 Memo，具体内容如下：

```

"Memos": [{"Memo": {"MemoType":
"687474703a2f2f6578616d706c652e636f6d2f6d656d6f2f67656e65726963", "MemoData":
"72656e74"}}]

```

具体命令如下：

```

sdchaind -q submit ss3ZBtHP [REDACTED] 9ryGE4Kuf
'{"TransactionType": "Payment", "Account": "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA", "Amount": "100000", "Destination": "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ", "Memos": [{"Memo": {"MemoType":
"687474703a2f2f6578616d706c652e636f6d2f6d656d6f2f67656e65726963", "MemoData":
"72656e74"}}}]'

```

4.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "engine_result" : "tesSUCCESS",
    "engine_result_code" : 0,
    "engine_result_message" : "The transaction was applied. Only final in a validated ledger.",
    "status" : "success",
    "tx_blob" :
"120000228000000024000000386140000000000186A0684000000000000000A732103EAC169
AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C87446304402207BAB
0D1317696D14FBA50EF752F460C5ABC9F1EA1EC182B9868BA90744793E3402206E6DD3CCBF
A7E7629C079D1A40506163276EB78ADEC7F01C0B97D18B26B582C881142E244E6F20104E57
C0C60BD823CB312BF10928C78314F0182925994B6A50B795814CB6FE8FBF40AE2015F9EA7C1
F687474703A2F2F6578616D706C652E636F6D2F6D656D6F2F67656E657269637D0472656E74
E1F1",
    "tx_json" : {
      "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
      "Amount" : "100000",
      "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
      "Fee" : "10",
      "Flags" : 2147483648,
      "Memos" : [
        {
          "Memo" : {
            "MemoData" : "72656E74",
            "MemoType" :
"687474703A2F2F6578616D706C652E636F6D2F6D656D6F2F67656E65726963"
          }
        }
      ],
      "Sequence" : 56,
      "SigningPubKey" :
"03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",
      "TransactionType" : "Payment",
      "TxnSignature" :
"304402207BAB0D1317696D14FBA50EF752F460C5ABC9F1EA1EC182B9868BA90744793E3402
206E6DD3CCBFA7E7629C079D1A40506163276EB78ADEC7F01C0B97D18B26B582C8",
      "hash" :
"BA4860759824DED3A4B0ECDDBB565A4FFB43019262ABA234674F47DB4776C856"
    }
  }
}
```



```
}  
}
```

4.3 结果应答

| | | |
|--|----|----|
| sdchaind | -q | tx |
| BA4860759824DED3A4B0ECDDBB565A4FFB43019262ABA234674F47DB4776C856 | | |

4.4 结果查询

```
{  
  "id" : 1,  
  "result" : {  
    "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",  
    "Amount" : "100000",  
    "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",  
    "Fee" : "10",  
    "Flags" : 2147483648,  
    "Memos" : [  
      {  
        "Memo" : {  
          "MemoData" : "72656E74",  
          "MemoType" :  
"687474703A2F2F6578616D706C652E636F6D2F6D656D6F2F67656E65726963"  
        }  
      }  
    ],  
    "Sequence" : 56,  
    "SigningPubKey" :  
"03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",  
    "TransactionType" : "Payment",  
    "TxnSignature" :  
"304402207BAB0D1317696D14FBA50EF752F460C5ABC9F1EA1EC182B9868BA90744793E3402  
206E6DD3CCBFA7E7629C079D1A40506163276EB78ADEC7F01C0B97D18B26B582C8",  
    "date" : 565759821,  
    "hash" :  
"BA4860759824DED3A4B0ECDDBB565A4FFB43019262ABA234674F47DB4776C856",  
    "inLedger" : 242398,  
    "ledger_index" : 242398,  
    "meta" : {  
      "AffectedNodes" : [  

```

```

{
  "ModifiedNode" : {
    "FinalFields" : {
      "Account" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
      "Balance" : "200299980",
      "Flags" : 0,
      "OwnerCount" : 1,
      "Sequence" : 3
    },
    "LedgerEntryType" : "AccountRoot",
    "LedgerIndex" :
"6E1082BBEB2F4BF8B7AF06A8E3D21D1F6AFBF4224C3ECD0CF6FEF533C8866A2D",
    "PreviousFields" : {
      "Balance" : "200199980"
    },
    "PreviousTxnID" :
"3BA64F565592AAA2631E85BAC76499F63A21C46200E827C7FAB7A0A5212375ED",
    "PreviousTxnLgrSeq" : 242329
  }
},
{
  "ModifiedNode" : {
    "FinalFields" : {
      "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
      "Balance" : "399675460",
      "Flags" : 8388608,
      "OwnerCount" : 1,
      "Sequence" : 57
    },
    "LedgerEntryType" : "AccountRoot",
    "LedgerIndex" :
"AA22EEB13821659B8316218C1D78606FD9C57C3192C2104EB7B0920AA30FF6C6",
    "PreviousFields" : {
      "Balance" : "399775470",
      "Sequence" : 56
    },
    "PreviousTxnID" :
"3BA64F565592AAA2631E85BAC76499F63A21C46200E827C7FAB7A0A5212375ED",
    "PreviousTxnLgrSeq" : 242329
  }
},
"TransactionIndex" : 0,
"TransactionResult" : "tesSUCCESS",

```

```

        "delivered_amount" : "100000"
    },
    "status" : "success",
    "validated" : true
}
}

```

5 带有多个 Memos 的交易

5.1 交易请求

交易中添加多个 Memos，内容如下：

```

"Memos": [{"Memo": {"MemoType": "616161", "MemoData": "abcdef"}}]

```

具体命令如下：

```

sdchaind -q submit ss3ZBtHP...yGE4Kuf
'{"TransactionType": "Payment", "Account": "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA", "Amount": "100000", "Destination": "64tWfk1p355SXFkQzidknmZhNaiskcxbZ", "Memos": [{"Memo": {"MemoType": "616161", "MemoData": "abcdef"}}]}'

```

5.2 交易应答

```

{
  "id" : 1,
  "result" : {
    "engine_result" : "tesSUCCESS",
    "engine_result_code" : 0,
    "engine_result_message" : "The transaction was applied. Only final in a validated ledger.",
    "status" : "success",
    "tx_blob" :
"12000022800000002400000039614000000000186A068400000000000000A732103EAC169
AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C87447304502210099
51A65F271CCE1F434A80BC27CE85A85012FAF743DBF5D6A969F3CC3EAAE12B02205ED40212
9349C222EF7993AFFAADD83B01A2A30ACCFCCADFD020E73900FE5B7881142E244E6F20104E

```

```

57C0C60BD823CB312BF10928C78314F0182925994B6A50B795814CB6FE8FBF40AE2015F9EA7
C1F687474703A2F2F6578616D706C652E636F6D2F6D656D6F2F67656E657269637D0472656E
74E1EA7C036161617D03ABCDEFE1F1",
  "tx_json" : {
    "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
    "Amount" : "100000",
    "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
    "Fee" : "10",
    "Flags" : 2147483648,
    "Memos" : [
      {
        "Memo" : {
          "MemoData" : "72656E74",
          "MemoType" :
"687474703A2F2F6578616D706C652E636F6D2F6D656D6F2F67656E65726963"
        }
      },
      {
        "Memo" : {
          "MemoData" : "ABCDEF",
          "MemoType" : "616161"
        }
      }
    ],
    "Sequence" : 57,
    "SigningPubKey" :
"03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",
    "TransactionType" : "Payment",
    "TxnSignature" :
"30450221009951A65F271CCE1F434A80BC27CE85A85012FAF743DBF5D6A969F3CC3EAAE12B
02205ED402129349C222EF7993AFFAADD83B01A2A30ACCFCCADFD020E73900FE5B78",
    "hash" :
"298A5151EE7CA90E9F003F11C1515B91C226E3747AB4362D711522138EF7B7A9"
  }
}

```

5.3 结果查询

| | | |
|--|----|----|
| sdchaind | -q | tx |
| 298A5151EE7CA90E9F003F11C1515B91C226E3747AB4362D711522138EF7B7A9 | | |

5.4 结果应答

```
{
  "id" : 1,
  "result" : {
    "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
    "Amount" : "100000",
    "Destination" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
    "Fee" : "10",
    "Flags" : 2147483648,
    "Memos" : [
      {
        "Memo" : {
          "MemoData" : "72656E74",
          "MemoType" : "687474703A2F6578616D706C652E636F6D2F6D656D6F2F67656E65726963"
        }
      },
      {
        "Memo" : {
          "MemoData" : "ABCDEF",
          "MemoType" : "616161"
        }
      }
    ],
    "Sequence" : 57,
    "SigningPubKey" : "03EAC169AF572EB52038D1C51F7E5B9C94CE34A7FBB714860BE001BDE25A4B03C8",
    "TransactionType" : "Payment",
    "TxnSignature" : "30450221009951A65F271CCE1F434A80BC27CE85A85012FAF743DBF5D6A969F3CC3EAAE12B02205ED402129349C222EF7993AFFAADD83B01A2A30ACCFCCADFD020E73900FE5B78",
    "date" : 565759911,
    "hash" : "298A5151EE7CA90E9F003F11C1515B91C226E3747AB4362D711522138EF7B7A9",
    "inLedger" : 242428,
    "ledger_index" : 242428,
    "meta" : {
      "AffectedNodes" : [
        {
          "ModifiedNode" : {
            "FinalFields" : {
              "Account" : "64tWfk1p355SXFkQzidknmZhNaiskcxpbZ",
```

```

        "Balance" : "200399980",
        "Flags" : 0,
        "OwnerCount" : 1,
        "Sequence" : 3
    },
    "LedgerEntryType" : "AccountRoot",
    "LedgerIndex" :
"6E1082BBEB2F4BF8B7AF06A8E3D21D1F6AFBF4224C3ECD0CF6FEF533C8866A2D",
    "PreviousFields" : {
        "Balance" : "200299980"
    },
    "PreviousTxnID" :
"BA4860759824DED3A4B0ECDDBB565A4FFB43019262ABA234674F47DB4776C856",
    "PreviousTxnLgrSeq" : 242398
}
},
{
    "ModifiedNode" : {
        "FinalFields" : {
            "Account" : "6nUy2SHThB9DubsPmkJZUXTf5FcNDGhYEA",
            "Balance" : "399575450",
            "Flags" : 8388608,
            "OwnerCount" : 1,
            "Sequence" : 58
        },
        "LedgerEntryType" : "AccountRoot",
        "LedgerIndex" :
"AA22EEB13821659B8316218C1D78606FD9C57C3192C2104EB7B0920AA30FF6C6",
        "PreviousFields" : {
            "Balance" : "399675460",
            "Sequence" : 57
        },
        "PreviousTxnID" :
"BA4860759824DED3A4B0ECDDBB565A4FFB43019262ABA234674F47DB4776C856",
        "PreviousTxnLgrSeq" : 242398
    }
}
},
    "TransactionIndex" : 0,
    "TransactionResult" : "tesSUCCESS",
    "delivered_amount" : "100000"
},
    "status" : "success",
    "validated" : true

```

```
}  
}
```

6 查看帮助信息

6.1 交易请求

具体命令如下：

```
./sdchaind -h
```

6.2 交易应答

```
} sdchaind [options] <command> <params>
```

General Options:

| | |
|-----------------------|---|
| -h [--help] | Display this message. |
| --conf arg | Specify the configuration file. |
| --rpc | Perform rpc command (default). |
| --rpc_ip arg | Specify the IP address for RPC command. Format: <ip-address>[':'<port-number>] |
| --rpc_port arg | Specify the port number for RPC command. |
| -a [--standalone] | Run with no peers. |
| -u [--unittest] arg | Perform unit tests. |
| --unittest-arg arg | Supplies argument to unit tests. |
| --unittest-log arg | Force unit test log output, even in quiet mode. |
| --parameters arg | Specify comma separated parameters. |
| -q [--quiet] | Reduce diagnostics. |
| --quorum arg | Override the minimum validation quorum. |
| --silent | No output to the console after startup. |
| -v [--verbose] | Verbose logging. |
| --load | Load the current ledger from the local DB. |
| --valid | Consider the initial ledger a valid network ledger. |
| --replay | Replay a ledger close. |
| --ledger arg | Load the specified ledger and start from assigned block height. |
| --ledgerfile arg | Load the specified ledger file. |
| --start | Start from a fresh Ledger. |
| --net | Get the initial ledger from the network. |
| --debug | Enable normally suppressed debug logging |
| --fg | Run in the foreground. |

| | |
|-----------|--|
| --import | Import an existing node database (specified in the [import_db] configuration file section) into the current node database (specified in the [node_db] configuration file section). |
| --version | Display the build version. |

Commands:

```

account_currencies <account> [<ledger>] [strict]
account_info <account> |<seed>|<pass_phrase>|<key> [<ledger>] [strict]
account_lines <account> <account>|"" [<ledger>]
account_channels <account> <account>|"" [<ledger>]
account_objects <account> [<ledger>] [strict]
account_offers <account>|<account_public_key> [<ledger>]
account_tx accountID [ledger_min [ledger_max [limit [offset]]]] [binary] [count]
[descending]
book_offers <taker_pays> <taker_gets> [<taker [<ledger> [<limit> [<proof>
[<marker>]]]]]
can_delete [<ledgerid>|<ledgerhash>|now|always|never]
channel_authorize <private_key> <channel_id> <drops>
channel_verify <public_key> <channel_id> <drops> <signature>
connect <ip> [<port>]
consensus_info
feature [<feature> [accept|reject]]
fetch_info [clear]
gateway_balances [<ledger>] <issuer_account> [ <hotwallet> [ <hotwallet> ]]
get_counts
json <method> <json>
ledger [<id>|current|closed|validated] [full]
ledger_accept
ledger_closed
ledger_current
ledger_request <ledger>
log_level [[<partition>] <severity>]
logrotate
peers
ping
random
sdchain ...
sdchain_path_find <json> [<ledger>]
version
server_info
sign <private_key> <tx_json> [offline]
sign_for <signer_address> <signer_private_key> <tx_json> [offline]
stop

```



```
submit <tx_blob>|[<private_key> <tx_json>]
submit_multisigned <tx_json>
tx <id>
validation_create [<seed>|<pass_phrase>|<key>]
validation_seed [<seed>|<pass_phrase>|<key>]
wallet_propose [<passphrase>]
```

7 查看节点信息

7.1 交易请求

具体命令如下：

```
sdchaind server_info
```

7.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "info" : {
      "build_version" : "0.60.2",
      "complete_ledgers" : "2211-116274",
      "hostid" : "sdchain-node-Singapore",
      "io_latency_ms" : 1,
      "last_close" : {
        "converge_time_s" : 2,
        "proposers" : 0
      },
      "load" : {
        "job_types" : [
          {
            "job_type" : "ledgerRequest",
            "per_second" : 2
          },
          {
            "in_progress" : 1,
            "job_type" : "clientCommand"
          }
        ]
      }
    }
  }
}
```

```
        "job_type" : "peerCommand",
        "per_second" : 4
    },
    {
        "job_type" : "SyncReadNode",
        "per_second" : 1
    },
    {
        "job_type" : "WriteNode",
        "per_second" : 1
    }
],
"threads" : 4
},
"load_factor" : 1,
"peers" : 1,
"pubkey_node" :
"n9LUxYk3119KwFYVj6xeAUepfmFpiWfjyF2V8Fmyt6Hg21GEpLQZ",
"pubkey_validator" :
"n9M2JkDT2WWAo1iaPTag9rxjGQDwC7dnnvyxUfVsZNrAe2CPnu6p",
"server_state" : "proposing",
"state_accounting" : {
    "connected" : {
        "duration_us" : "0",
        "transitions" : 0
    },
    "disconnected" : {
        "duration_us" : "1456026",
        "transitions" : 1
    },
    "full" : {
        "duration_us" : "83096770987",
        "transitions" : 3
    },
    "syncing" : {
        "duration_us" : "11002681",
        "transitions" : 3
    },
    "tracking" : {
        "duration_us" : "178",
        "transitions" : 3
    }
},
"uptime" : 83109,
```

```

      "validated_ledger" : {
        "age" : 4,
        "base_fee_sda" : 1e-05,
        "hash" :
"86ED5D17D8ECD37EB8F6FD11B25A121A348A947AB56C9B8F5F1CEF3E8C6A8AF7",
        "reserve_base_sda" : 20,
        "reserve_inc_sda" : 5,
        "seq" : 116274
      },
      "validation_quorum" : 1
    },
    "status" : "success"
  }
}

```

注释：

其中"status" : "success"：表示当前节点运行状态正常。

8 查看及设置日志级别

8.1 查看请求

具体命令如下：

```
sdchaind log_level
```

8.2 查看应答

```

{
  "id" : 1,
  "result" : {
    "levels" : {
      "Amendments" : "Warning",
      "Application" : "Warning",
      "Collector" : "Warning",
      "Consensus" : "Warning",
      "FeeVote" : "Warning",
      "InboundLedger" : "Warning",
      "JobQueue" : "Warning",
      "Ledger" : "Warning",
      "LedgerCleaner" : "Warning",

```

```

    "LedgerConsensus" : "Warning",
    "LedgerHistory" : "Warning",
    "LedgerMaster" : "Warning",
    "LedgerTiming" : "Warning",
    "LoadManager" : "Warning",
    "LoadMonitor" : "Warning",
    "ManifestCache" : "Warning",
    "NetworkOPs" : "Warning",
    "NodeObject" : "Warning",
    "OpenLedger" : "Warning",
    "OrderBookDB" : "Warning",
    "Overlay" : "Warning",
    "PathRequest" : "Warning",
    "Peer" : "Warning",
    "PeerFinder" : "Warning",
    "Protocol" : "Warning",
    "RPC" : "Warning",
    "RPCHandler" : "Warning",
    "Resolver" : "Warning",
    "Resource" : "Warning",
    "SHAMap" : "Warning",
    "SHAMapStore" : "Warning",
    "Server" : "Warning",
    "TaggedCache" : "Warning",
    "TimeKeeper" : "Warning",
    "TxQ" : "Warning",
    "Validations" : "Warning",
    "ValidatorList" : "Warning",
    "ValidatorSite" : "Warning",
    "View" : "Warning",
    "WALCheckpointner" : "Warning",
    "base" : "Warning"
  },
  "status" : "success"
}
}

```

8.3 设置请求

```
sdchaind log_level debug
```

注释:

其中可以设置的 `log_level` 值包括: `trace`, `debug`, `info`, `warning`, `error`, and `fatal` 不同的级别输出的日志详细信息不同。

8.4 设置应答

```
{
  "id" : 1,
  "result" : {
    "status" : "success"
  }
}
```

9 查看交易详情

9.1 交易请求

具体命令如下：

```
sdchaind tx E5684BFCEDE95B0539839E1B757401D5E27478E2567502C86C0972567A67933F
```

注释：

Tx 后面加上交易记录的 hash 值。

9.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "Account" : "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
    "Amount" : "1000",
    "Destination" : "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
    "Fee" : "10",
    "Flags" : 2147483648,
    "Sequence" : 27,
    "SigningPubKey" :
    "0330E7FC9D56BB25D6893BA3F317AE5BCF33B3291BD63DB32654A313222F7FD020",
    "TransactionType" : "Payment",
    "TxnSignature" :
    "30440220399965A5C60B9E38D7CB235CAA729A67BAD0C853FFCE8E2E6C82E76F208284440
    2203D7ECC9ECFDA3A45DFD9109C97BCBD8F67B73990EEC5C3C73D0259455D1E72CF",
    "date" : 573729581,
    "hash" :
    "E5684BFCEDE95B0539839E1B757401D5E27478E2567502C86C0972567A67933F",
  }
}
```

```

    "inLedger" : 116596,
    "ledger_index" : 116596,
    "meta" : {
      "AffectedNodes" : [
        {
          "ModifiedNode" : {
            "FinalFields" : {
              "Account" : "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
              "Balance" : "20997720",
              "Flags" : 0,
              "OwnerCount" : 0,
              "Sequence" : 28
            },
            "LedgerEntryType" : "AccountRoot",
            "LedgerIndex" :
"2B6AC232AA4C4BE41BF49D2459FA4A0347E1B543A4C92FCEE0821C0201E2E9A8",
            "PreviousFields" : {
              "Balance" : "20998730",
              "Sequence" : 27
            },
            "PreviousTxnID" :
"F8B2D9DBFD8CB1A3DEB864822305DE574EDAB60C355DD108B663C63F7535E476",
            "PreviousTxnLgrSeq" : 116592
          }
        },
        {
          "ModifiedNode" : {
            "FinalFields" : {
              "Account" : "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
              "Balance" : "82001000",
              "Flags" : 0,
              "OwnerCount" : 0,
              "Sequence" : 1
            },
            "LedgerEntryType" : "AccountRoot",
            "LedgerIndex" :
"35C97BB2890349B177A9DAF1DA5B5631C0F07B6F25059BB0E5136C38606A6395",
            "PreviousFields" : {
              "Balance" : "82000000"
            },
            "PreviousTxnID" :
"B973619E24F6B016AC5259E6ED0C43D352F3F6BC2471FBEF722B4998194B1527",
            "PreviousTxnLgrSeq" : 92532
          }
        }
      ]
    }
  }

```

```

        }
    ],
    "TransactionIndex" : 0,
    "TransactionResult" : "tesSUCCESS",
    "delivered_amount" : "1000"
  },
  "status" : "success",
  "validated" : true
}
}

```

10 查询账户的交易信息

10.1 交易请求

具体命令如下：

```
sdchaind account_tx 6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc 116000 116672
```

注释：

其中区块高度的起始和结束值分别如下：

```

"ledger_index_min" : 116000,
"ledger_index_max" : 116672,

```

执行成功后，会返回这个区间的该账号 6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc 的所有交易记录集合。

10.2 交易应答

```

{
  "id" : 1,
  "result" : {
    "account" : "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
    "ledger_index_max" : 116672,
    "ledger_index_min" : 116000,
    "status" : "success",
    "transactions" : [
      {
        "meta" : {
          "AffectedNodes" : [
            {
              "ModifiedNode" : {
                "FinalFields" : {

```

```

        "Account" : "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
        "Balance" : "20997720",
        "Flags" : 0,
        "OwnerCount" : 0,
        "Sequence" : 28
    },
    "LedgerEntryType" : "AccountRoot",
    "LedgerIndex" :
"2B6AC232AA4C4BE41BF49D2459FA4A0347E1B543A4C92FCEE0821C0201E2E9A8",
    "PreviousFields" : {
        "Balance" : "20998730",
        "Sequence" : 27
    },
    "PreviousTxnID" :
"F8B2D9DBFD8CB1A3DEB864822305DE574EDAB60C355DD108B663C63F7535E476",
    "PreviousTxnLgrSeq" : 116592
}
},
{
    "ModifiedNode" : {
        "FinalFields" : {
            "Account" : "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
            "Balance" : "82001000",
            "Flags" : 0,
            "OwnerCount" : 0,
            "Sequence" : 1
        },
        "LedgerEntryType" : "AccountRoot",
        "LedgerIndex" :
"35C97BB2890349B177A9DAF1DA5B5631C0F07B6F25059BB0E5136C38606A6395",
        "PreviousFields" : {
            "Balance" : "82000000"
        },
        "PreviousTxnID" :
"B973619E24F6B016AC5259E6ED0C43D352F3F6BC2471FBEBF722B4998194B1527",
        "PreviousTxnLgrSeq" : 92532
    }
}
},
"TransactionIndex" : 0,
"TransactionResult" : "tesSUCCESS",
"delivered_amount" : "1000"
},
"tx" : {

```



```

        "Account" : "6Hb9CJAWyB46j91VRWn9rDkukG4bwdtyTh",
        "Amount" : "1000",
        "Destination" : "6PrXdWVoXzmGCmi56wTFTC3e6xezLWh2dc",
        "Fee" : "10",
        "Flags" : 2147483648,
        "Sequence" : 27,
        "SigningPubKey" :
"0330E7FC9D56BB25D6893BA3F317AE5BCF33B3291BD63DB32654A313222F7FD020",
        "TransactionType" : "Payment",
        "TxnSignature" :
"30440220399965A5C60B9E38D7CB235CAA729A67BAD0C853FFCE8E2E6C82E76F208284440
2203D7ECC9ECFDA3A45DFD9109C97BCBD8F67B73990EEC5C3C73D0259455D1E72CF",
        "date" : 573729581,
        "hash" :
"E5684BFCED95B0539839E1B757401D5E27478E2567502C86C0972567A67933F",
        "inLedger" : 116596,
        "ledger_index" : 116596
    },
    "validated" : true
}
]
}
}

```

11 查看共识信息

11.1 交易请求

具体命令如下：

```
sdchaind consensus_info
```

11.2 交易应答

```

{
  "id" : 1,
  "result" : {
    "info" : {
      "acquired" :

```

```
[ "0000000000000000000000000000000000000000000000000000000000000000" ],
  "close_granularity" : 10,
  "close_percent" : 20,
  "close_resolution" : 10,
  "current_ms" : 1000,
  "have_time_consensus" : false,
  "ledger_seq" : 116822,
  "our_position" : {
    "close_time" : 573730258,
    "previous_ledger" :
"B39C1987E51C57A9CB0E3CEEEF4EDD6FE47577DD3B0092A5C2A2359938503351",
    "propose_seq" : 0,
    "transaction_hash" :
"0000000000000000000000000000000000000000000000000000000000000000"
  },
  "previous_mseconds" : 1999,
  "previous_proposers" : 0,
  "proposers" : 0,
  "proposing" : true,
  "state" : "consensus",
  "synched" : true,
  "validating" : true
},
"status" : "success"
}
]
```

12 生成节点验证信息

12.1 交易请求

具体命令如下：

```
./sdchaind validation_create
```

12.2 交易应答

```
{
  "id" : 1,
```

```

"result": {
  "status": "success",
  "validation_key": "WAG GRIN ROLL GAG GIN LAND NINA MIRE SEEN DOOR SWIM
HERE",
  "validation_private_key" :
"pfp8gPLZggoRyZLbyx22BoeF7j1QdsTfcxJdsrQTYAeciJWK2BG",
  "validation_public_key" :
"n9K4wB1CACyG5hU71qm3D1HxYQBJBrvKqtFYreUNbmusXsjFvod2",
  "validation_seed": "ssLoGyc...cB56ANvZPoo"
}
}

```

注释:

生成节点的验证公私钥信息:

"validation_public_key": "n9K4wB1CACyG5hU71qm3D1HxYQBJBrvKqtFYreUNbmusXsjFvod2",

"validation_seed": "ssLoGyc...cB56ANvZPoo"

把上面的 validation_public_key 和 validation_seed 值放入其它节点的配置文件中, 可以让其它节点作为验证节点, 和本节点进行联网。具体配置参见《节点接入》文档。

13 找回账号地址

13.1 交易请求

具体命令如下:

```
./sdchaind wallet_propose ssKGe4...QGmonEySgnN
```

注释:

通过私钥可以找回账号的地址和公钥等信息。

其中 ssKGe4...QGmonEySgnN 为私钥。

13.2 交易应答

```

{
  "id": 1,
  "result": {
    "account_id": "6K4HzSpDXP8ZND7rugMxmNnJyDZQ6s4UJ",
    "key_type": "secp256k1",
    "master_key": "FADE GOUT CITE TOWN HUCK LAM JAVA LIN DOLE HALT MASK HEEL",

```

```
    "master_seed" : "ss3ZBtHP[REDACTED]yGE4Kuf",
    "master_seed_hex" : "2C839BC9D299A4A046BC69779BE9F17C",
    "public_key" : "aB4dVJrdv7kjQ6kTzwMvgmWCdpEbUs7GTuWPbgpzoXD32oXso3Vf",
    "public_key_hex" :
"025886EAB4F2E4C881D49EEAAA0727D0BBB4B9A7898E0800325ED5E2C93DCB5756",
    "status" : "success",
    "warning" : "This wallet was generated using a user-supplied passphrase. It may be
vulnerable to brute-force attacks."
  }
}
```

14 连接指定节点

14.1 交易请求

具体命令如下：

```
./sdchaind connect 45.76.69.152
```

14.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "message" : "connecting",
    "status" : "success"
  }
}
```

15 查看节点信息

15.1 交易请求

具体命令如下：

```
./sdchaind peers
```

15.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "cluster" : {},
    "peers" : [
      {
        "address" : "45.76.69.152:44951",
        "complete_ledgers" : "1 - 115670",
        "inbound" : true,
        "latency" : 319,
        "load" : 170,
        "public_key" : "n9LFnDTLjwAnHF9zUtkkATW5cPRMqKJS7u6x6zcmtzdSjKtszsf2",
        "uptime" : 16,
        "version" : "sdchaind-0.60.2"
      }
    ],
    "status" : "success"
  }
}
```

16 停止节点服务

16.1 交易请求

具体命令如下：

```
./sdchaind stop
```

16.2 交易应答

```
{
  "id" : 1,
  "result" : {
    "message" : "sdchain server stopping",
    "status" : "success"
  }
}
```

