MY YAHOO FINANCE STOCK

TCP Communication design

**AMENDMENT RECORDS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Rev*** | ***Date*** | ***Descriptions*** | ***Writer*** | ***Function*** |
| *1* | *17/04/2012* | First version | Shenglong.Lin | Module design note |
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| **Entity / Function** |  | **Entity / Function** |  |
| **Date & Sign.** |  | **Date & Sign.** |  |
| **Reserved to the Engineer** |  |  |  |

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# introduction

## General

### Purpose

This document has been written as an overall architecture of the communication between tcp server and tcp client.

### Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Changes / Reason for Issue |
| 1.00 | 2 Jan 2011 | Shenglong.lin | First Draft |
|  |  |  |  |
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### Definitions,Acronyms and Abbreviations

|  |  |
| --- | --- |
| Name | Description |
| PL | Package Length |
|  |  |
|  |  |
|  |  |

### References

|  |  |  |
| --- | --- | --- |
|  | Reference | Title |
|  |  |  |
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# MOTIVATION(动机)

This section describes the format of the data.

## Background

Due to the differences of the tcp server function and tcp client. They need communction.

## Requirements

The communication must be simple.

# CONSTRAINTS

This section describes the constraints including environment and system requirement constraints.

## Environment Constraints

The Communication base on TCP protocol..

## System Requirement Constraints

The Communication base on TCP protocol.

# SYSTEM OVERVIEW

This section describes the overview of the tcp server and tcp client. The messages can be propagated from one server to one client.

# system architecture

This section details the system architecture.

## System Architecture Design (系统架构设计)

System Architecture Design.

## Module Decomposition Design

Module Decomposition Design

## Design Rational

Design Rational.

## Related Cots

Related Cots

# Detail Design

## Background

* 字节 英文名称是Byte.一个字节代表八个比特.它通常用作计算机信息计量单位，不分数据类型.
* 比特（英语：Bit），亦称二进制位，指二进制中的一位，是信息的最小单位。Bit是Binary digit（二进制数位）的缩写
* 1字节（Byte）=8比特（bit）=8位
* Byte（字节）可被缩写成B，例如MB表示Megabyte
* Bit（比特）可被缩写成b，例如Mb表示Megabit
* 目前为止最大的字节制单位
  + 1KB=1024B 1MB=1024KB 1GB=1024MB
  + 1TB=1024GB 1PB=1024TB 1EB=1024PB
  + 1ZB=1024EB 1YB=1024ZB 1BB=1024YB
  + 1NB=1024BB 1DB = 1024NB 1CB = 1024DB
  + 1XB = 1024CB
* bit意为“位”或“比特”，是计算机运算的基础
* byte意为“字节”，是计算机文件大小的基本计算单位.
* 与传输速度有关的b一般指的是bit
* 与容量有关的b一般指的是byte

## Format

## Package Format

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | N |  |
| N | Message | \* |  |

## Message Format

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | 4+4+4  +Str.size()+1 +Str.size()+1  +N |  |
| 4 | MessageType | 0x00  0x01 | 0x00 – REQ  0x01 - ACK |
| 4 | Data Type | 0x00  … | EDataType |
| QString | REQ UUID | String”\0”  “{12372162-5b54-45a1-937c-d330229dedc2}” | "{xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx}" |
| QString | ACK UUID | String”\0”  “{12372162-5b54-45a1-937c-d330229dedc2}” | "{xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx}" |
| N | Req Data or Ack Data | \* | Req Data or Ack Data |

## Req Login Message Formate

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | 4+4+4  +Str.size()+1 +Str.size()+1  + Str.size()+1  +Str.size()+1 |  |
| 4 | MessageType | 0x00 | EMsgType |
| 4 | DataType | 0x00 | 0x00-Login  EDataType |
| QString | REQ UUID | String”\0” |  |
| QString | ACK UUID | String”\0” |  |
| QString | UserName | String “\0” |  |
| QString | Password | String “\0” |  |

## Ack Login Message Formate

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | 4+4+4  +Str.size()+1 +Str.size()+1  +4 |  |
| 4 | MessageType | 0x01 | EMsgType |
| 4 | Ack Data Type | 0x00 | 0x00-Login  EDataType |
| QString | REQ UUID | String”\0” |  |
| QString | ACK UUID | String”\0” |  |
| 4 | Login Result | 0x00 | EDataTypeLoginResult |

## Req Logout Message Formate

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | 4+4+4  +Str.size()+1 +Str.size()+1  +Str.size()+1  +Str.size()+1 |  |
| 4 | MessageType | 0x00 | EMsgType |
| 4 | Req Data Type | 0x01 | 0x01-Logout  EDataType |
| QString | REQ UUID | String”\0” |  |
| QString | ACK UUID | String”\0” |  |
| QString | UserName | String “\0” |  |
| QString | Password | String “\0” |  |

## Ack Logout Message Formate

|  |  |  |  |
| --- | --- | --- | --- |
| 长度(Byte) | 名称 | 值 | 描述 |
| 4 | Message Length | 4+4+4  +Str.size()+1 +Str.size()+1  +4 |  |
| 4 | MessageType | 0x01 | EMsgType |
| 4 | DataType | 0x01 | 0x01-Logout  EDataType |
| QString | REQ UUID | String”\0” |  |
| QString | ACK UUID | String”\0” |  |
| 4 | Logout Result | 0x00 | EDataTypeLogoutResult |