

TCPTCPgtcp.Conngtcp.ConnSendRecv

Recv\*switch...case...goroutine



Send\*/Recv\*gtcp.Conn

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[https://github.com/gogf/gf/v2/tree/master/example/net/gtcp/pkg\\_operations/common](https://github.com/gogf/gf/v2/tree/master/example/net/gtcp/pkg_operations/common)

#### 1. types/types.go

SendPkg/RecvPkg

JSONJSONActuint8

```
package types

type Msg struct {
    Act string //
    Data string //
}
```

#### 2. funcs/funcs.go

//

```

package funcs

import (
    "encoding/json"
    "fmt"
    "github.com/gogf/gf/v2/net/gtcp"
    "github.com/gogf/gf/.example/net/gtcp/pkg_operations/common/types"
)

//
func SendPkg(conn *gtcp.Conn, act string, data...string) error {
    s := ""
    if len(data) > 0 {
        s = data[0]
    }
    msg, err := json.Marshal(types.Msg{
        Act : act,
        Data : s,
    })
    if err != nil {
        panic(err)
    }
    return conn.SendPkg(msg)
}

//
func RecvPkg(conn *gtcp.Conn) (msg *types.Msg, err error) {
    if data, err := conn.RecvPkg(); err != nil {
        return nil, err
    } else {
        msg = &types.Msg{}
        err = json.Unmarshal(data, msg)
        if err != nil {
            return nil, fmt.Errorf("invalid package structure: %s",
                err.Error())
        }
        return msg, err
    }
}

```

3. gtcp\_common\_server.go

10doexit

```

package main

import (
    "github.com/gogf/gf/v2/net/gtcp"
    "github.com/gogf/gf/v2/os/glog"
    "github.com/gogf/gf/v2/os/gtimer"
    "github.com/gogf/gf/.example/net/gtcp/pkg_operations/common
/funcs"
    "github.com/gogf/gf/.example/net/gtcp/pkg_operations/common
/types"
    "time"
)

func main() {
    gtcp.NewServer("127.0.0.1:8999", func(conn *gtcp.Conn) {
        defer conn.Close()
        // , 10
        gtimer.SetTimeout(10*time.Second, func() {
            funcs.SendPkg(conn, "doexit")
        })
        for {
            msg, err := funcs.RecvPkg(conn)
            if err != nil {
                if err.Error() == "EOF" {
                    glog.Println("client closed")
                }
                break
            }
            switch msg.Act {
                case "hello":      onClientHello(conn, msg)
                case "heartbeat": onClientHeartBeat(conn, msg)
                default:
                    glog.Errorf("invalid message: %v", msg)
                    break
            }
        }
    }).Run()
}

func onClientHello(conn *gtcp.Conn, msg *types.Msg) {
    glog.Printf("hello message from [%s]: %s", conn.RemoteAddr().
String(), msg.Data)
    funcs.SendPkg(conn, msg.Act, "Nice to meet you!")
}

func onClientHeartBeat(conn *gtcp.Conn, msg *types.Msg) {
    glog.Printf("heartbeat from [%s]", conn.RemoteAddr().String())
}

```

#### 4. gtcp\_common\_client.go

forSendPkg

gtimer13hellogtimerTCP

10doexit

```

package main

import (
    "github.com/gogf/gf/v2/net/gtcp"
    "github.com/gogf/gf/v2/os/glog"
    "github.com/gogf/gf/v2/os/gtimer"
    "github.com/gogf/gf/.example/net/gtcp/pkg_operations/common
/funcs"
    "github.com/gogf/gf/.example/net/gtcp/pkg_operations/common
/types"
    "time"
)

func main() {
    conn, err := gtcp.NewConn("127.0.0.1:8999")
    if err != nil {
        panic(err)
    }
    defer conn.Close()
    //
    gtimer.SetInterval(time.Second, func() {
        if err := funcs.SendPkg(conn, "heartbeat"); err != nil {
            panic(err)
        }
    })
    // , 3hello
    gtimer.SetTimeout(3*time.Second, func() {
        if err := funcs.SendPkg(conn, "hello", "My name's John!");
    err != nil {
        panic(err)
    }
    })
    for {
        msg, err := funcs.RecvPkg(conn)
        if err != nil {
            if err.Error() == "EOF" {
                glog.Println("server closed")
            }
            break
        }
        switch msg.Act {
            case "hello":      onServerHello(conn, msg)
            case "doexit":     onServerDoExit(conn, msg)
            case "heartbeat":  onServerHeartBeat(conn, msg)
            default:
                glog.Errorf("invalid message: %v", msg)
                break
        }
    }
}

func onServerHello(conn *gtcp.Conn, msg *types.Msg) {
    glog.Printf("hello response message from [%s]: %s", conn.
RemoteAddr().String(), msg.Data)
}

func onServerHeartBeat(conn *gtcp.Conn, msg *types.Msg) {
    glog.Printf("heartbeat from [%s]", conn.RemoteAddr().String())
}

func onServerDoExit(conn *gtcp.Conn, msg *types.Msg) {
    glog.Printf("exit command from [%s]", conn.RemoteAddr().String())
    conn.Close()
}

```

5.

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```
2019-05-03 14:59:13.732 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:14.732 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:15.733 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:15.733 hello message from [127.0.0.1:51220]:
My name's John!
2019-05-03 14:59:16.731 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:17.733 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:18.731 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:19.730 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:20.732 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:21.732 heartbeat from [127.0.0.1:51220]
2019-05-03 14:59:22.698 client closed
```

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```
2019-05-03 14:59:15.733 hello response message from
[127.0.0.1:8999]: Nice to meet you!
2019-05-03 14:59:22.698 exit command from [127.0.0.1:8999]
```