XEngine Backstage Service Docment

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# Preface

## Reader

Development ,test

## **Overview**

This document contains related technical descriptions and interface definitions

## Associate Module

The service used XEngine as Network Toolki.if you want to use code,you have to installed XEngine

# 一 Technical structure

The HTTP protocol is used as the basic communication protocol,support tcp and udp

## TCP

TCP protocol is faster and has more functions.

## HTTP

The control message get through the GET method

# 二 Configure Env

## 2.1 WINDOWS

Need to download XEngine.

Complie and run and debug by vs.

Download address:https://gitee.com/xyry/libxengine

https://github.com/libxengine/xengine

### 2.1.1 Configure Environment

Follow the instructions in the XEngine Readme file to execute the script to configure the environment. If succeed, you will see the following values in your system environment variables.



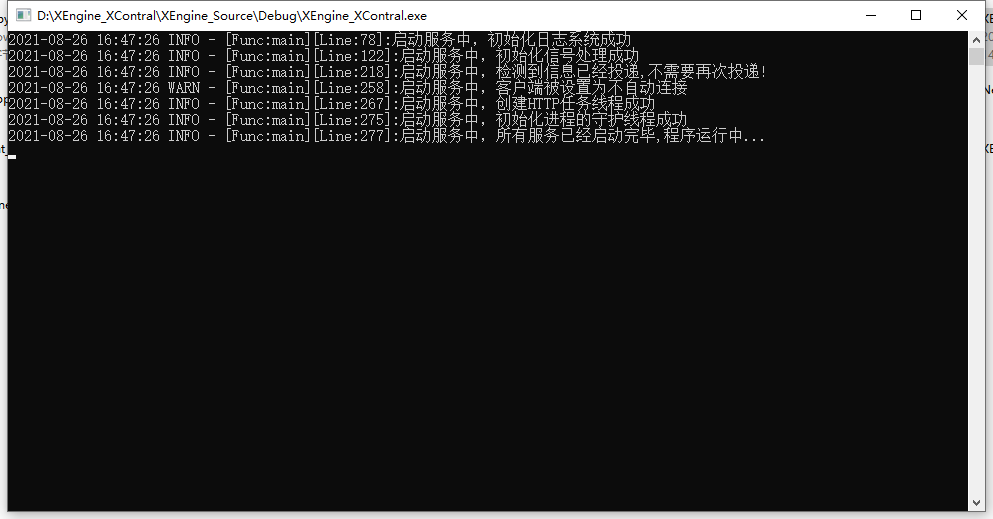
### 2.1.2 complie and run

When you complete with configuration.you can come in code path.open XEngine.sln by vs.and complie.

If environment not have error.complie is succesed.contrain 4 module and 2 program(LINUX only one)

And you need copy file under XEngine\_Release to your complied dir.next step copy file under XEngine depend Module to your complied dir.

If not have error,you can see follow the infomation



Note: You can use the VSCopy.bat script to automatically copy dependent XEngine modules to your program directory

## 2.2 LINUX

### 2.2.1 Evnironment Configure

If you use linux.you must running on ubuntu(20.04) or centos(8.x)...

### 2.2.2 Complie and Run

Configure complete.you can complie it.open terminal in you xengine\_storage dir and execute command.

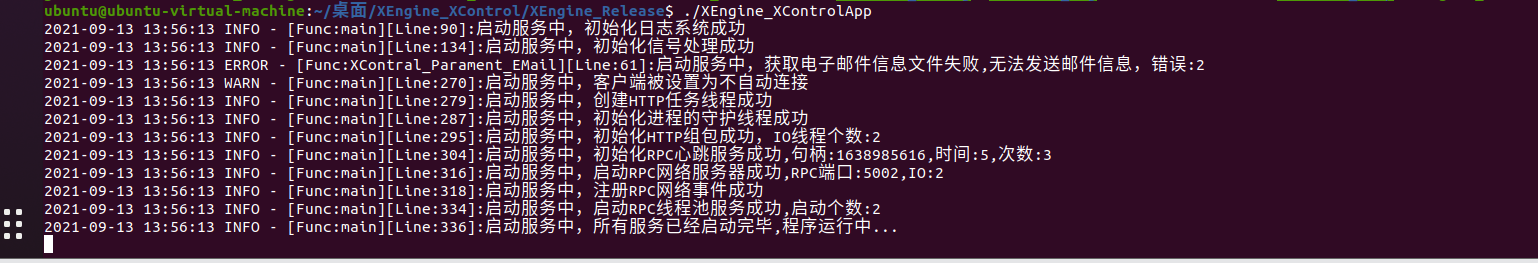
complie:make

install:make FLAGS=InstallAll

clean:make FLAGS=CleanAll

If there is no error.you can see complied XEngine\_XControlApp file in XEngine\_Release

You can running at terminal.if there is no error,you can infomation:



## 2.3 Version Requirements

### 2.3.1 System Version

Minimum version requirements:

WINDOWS: win7 sp1

Ubuntu:20.04

Centos:8.x

### 2.3.2 Software Version

Minimum version requirements:

XEngine:V7.32

# 三 Interface Protocol

## 3.1 Backstage service protocol

Backstage service protocol used to Backstage program service,Applicable to XEngine\_XControl service.A machine can be managed through this service. The background service agreement does not reply to the confirmation package

The back-end service protocol support http and tcp and udp,Request-response mode

### 3.1.1 Protocol processing

Note: The "unOperatorCode" field must be included in the JSON of each protocol: 0x5001. This field represents the type of protocol that needs to be processed. This type can be found through the protocol header, for example, 0x5001 means download.

### 3.1.2 Backstage management agreement

#### 3.1.2.1 Download

{  
    **"DownloadUrl"**:**"[http://www.xyry.org/file.exe](http://www.xyry.org/file.exe" \t "https://www.json.cn/_blank)"**,  
    **"SaveUrl"**:**"C:\1\file.exe"**  
}

#### 3.5.2.2 Delete file

{  
    **"DeleteFile"**:**"C:\1\file.exe"**  
}

#### 3.1.2.3 Delete folder

{  
    **"DeleteDir"**:**"C:\1\"**  
}

#### 3.1.2.4 upload files

The upload file protocol uses FTP to upload files. You must have a FTP server. When the command is received by the client, the file will be uploaded immediately.

{  
    **"UPLoadFile"**:**"C:\1\file.exe"**,  
 **"UPLoadUrl"**:**"ftp://ftpuser:123123@192.168.1.103/1.rar"**  
}

#### 3.1.2.5 Get file list

##### 3.1.2.5.1 request

{  
    **"PostUrl"**:**"[http://www.xyry.org/api/listfile](http://www.xyry.org/api/listfile" \t "https://www.json.cn/json/_blank)"**,  
    **"FilePath"**:**"C:\1\file.exe"**  
}

##### 3.1.2.5.2 reply

If it succeeds, then an HTTP POST request will be sent to the POSTURL address you specified. And load the JSON content in the following format

{  
    **"Count"**:**2**,  
    **"List"**:[  
        {  
            **"FileName"**:**"1.exe"**,  
            **"FileDir"**:**"C:\1\"**  
        },  
        {  
            **"FileName"**:**"2.exe"**,  
            **"FileDir"**:**"C:\1\"**  
        }  
    ]  
}

#### 3.1.2.6 Create Process

Protocol body: ExecShow, 1 represents front-end display, 0 represents running to the background

{  
    **"ExecShow"**:**1**,  
    **"ExecFile"**:**"C:\1\1.exe"**  
}

#### 3.1.2.7 Stop Process

{  
    **"tszProcessName"**:**"1.exe"**  
}

#### 3.1.2.8 send messages

Only windows

{  
    **"MessageBox"**:**"Pop-up message"**  
}

#### 3.1.2.9 Shut down the system

Protocol body: Refer to the SystemApi\_System\_Shutdown function parameter of the system module for the supported types

{  
    **"ShutDownType"**:1  
}

#### 3.1.2.10 Excuting command

{  
    **"tszExecCmd"**:**"Command to execute"**  
}

#### 3.1.2.11 connect

{  
    **"tszIPAddr"**:**"ip address"**,  
    **"nPort"**:**32**,  
    **"nIPType"**:**2**  
}

nIPType means TCP or UDP, which needs to be set according to the socket header file definition type

#### 3.1.2.12 Information Report

{  
    **"nType"**:**0**,  
    **"tszIPAddr"**:**"report address .POST Method"**  
}

nType:0 mean is hardware information,1 Software information

# 四 Configure Description

## 4.1 Service Configure

Basic Configure File:XEngine\_Config.json

### 4.1.1 basic configure

* tszTaskUrl:HTTP task address
* tszAPPDeamon:service deamon local process address
* bAutoStart:whether set auto start
* bHideWnd:start auto hide windows

### 4.1.2 Time Configure

ClientTime Configure

* nCheckTime:process check time of wait,unit second
* nErrorTime:Maximum allowable number of process startup errors
* nHTTPThreadTime:HTTP task execution interval
* nTCPThreadTime:TCP task execution interval
* nUDPThreadTime:UDP task execution interval

### 4.1.3 Log Configure

LogConfig Configure

* nMaxSize:Log file size
* nMaxCount:Log File Number
* nLogLeave:Allow save level
* tszLogFile:log file address

### 4.1.4 Version Configure

VersionList Array

## 4.2 process deamon configure

Configure file:XEngine\_ConfigList.json

ListCount:deamon process number

ListArray:process list

* APPName:process name
* APPPath:process path
* APPAutoStart:whether auto start
* APPService:whether is service
* APPReTime:set auto restart,unit second
* APPEnable:whether enable configure

# 五 Advanced configuration

## 5.2 Service Configure

### 5.2.1 Windows

Windows Need use XEngine\_Deamon program.the program just only running windows.the program running through service.

The daemon is in the tszAPPDeamon of the configuration file XEngine\_Config.json

配置使用管理员运行控制台

Configure use to consolo by administrator

Install service:XEngine\_Deamon.exe /install

Delete service:XEngine\_Deamon.exe /uninstall

### 5.2.2 Linux

Linux set service through xControl.service script

Fist copy all file to /usr/sbin/XEngine\_XControl.

Execute command:

Start service:sudo systemctl start xControl

Auto service:sudo systemctl enable xControl

Stop service:sudo systemctl stop xControl

# appendix

## Appendix 1 update log