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.

### 2.1.1 Configure Environment

Follow the instructions in the XEngine Readme file to execute the script to configure the environment

### 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.

Note: Xengine environment can be copied to your compilation directory through vscopy script, provided that you configure your xengine environment

## 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

## 2.3 Version Requirements

### 2.3.1 System Version

Minimum version requirements:

WINDOWS: win7 sp1

Ubuntu:20.04

Centos:8.x

MacOS:12

### 2.3.2 Software Version

Minimum version requirements:

XEngine:V7.38

# 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