UGEE signature

Biometric Hardware Redefined

# UGEE Signature SDK

# Operation Manual

**December 2024**

1st Version

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## 1. Foreword

The purpose of this document is to provide an overview of how the UGEE handwriting devices and the UGEE signature SDKs are intended to interact. Specifically there is information on the capture and transfer of the handwriting data through the corresponding SDKs as well as other server-side program driver installation tutorials.

UGEE provides different SDKs for different usage scenarios, which is detailed in the later parts of this document for quick reference.

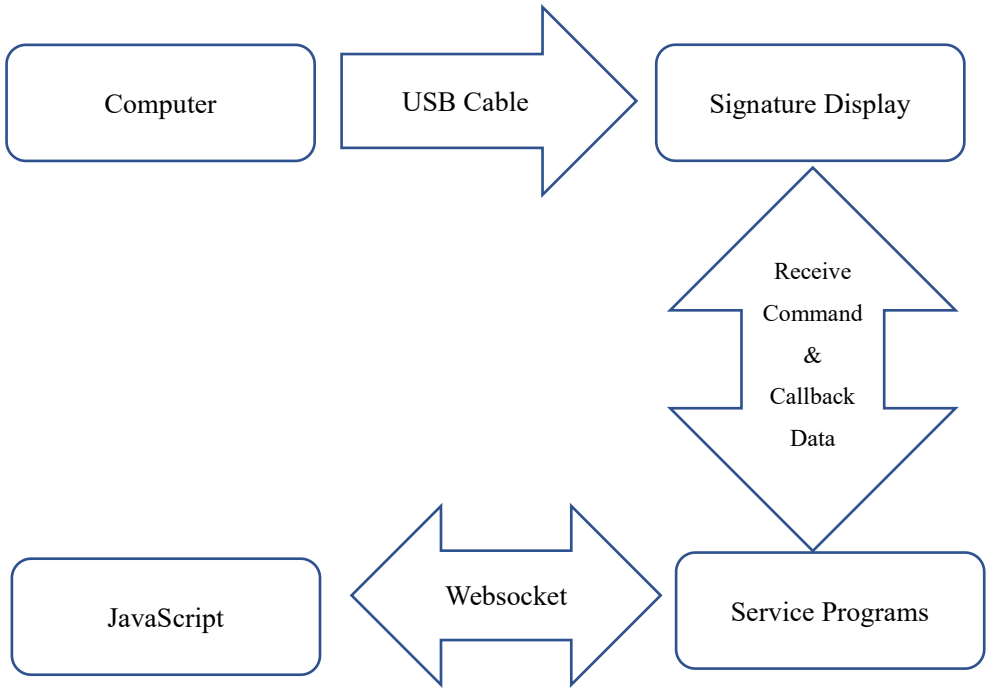
## 2. Overview

UGEE SDKs are divided primarily into two categories: B/S (Browser/Server) structure and C/S (Client/Server) structure. It is important to select the appropriate SDK in accordance with the requirements of one´s own project and workflow.

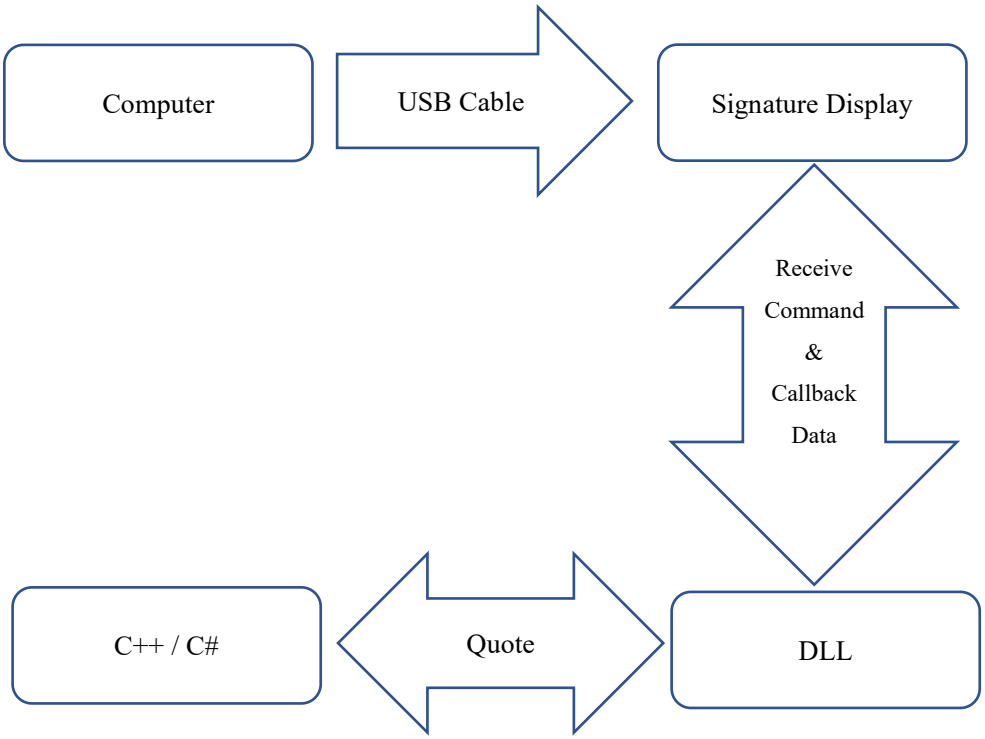
**Description**:1. The service program receives messages from HTML and sends them to the digital screen, such as URL, signature boxes, etc.

2. After the signature is completed, the digital display returns the signature data base64 encoding, photo image, PDF file, etc.

3. The HTML page obtains data through the callback function interface and places it in the corresponding position of the web page




B/S Operation Structure Diagram

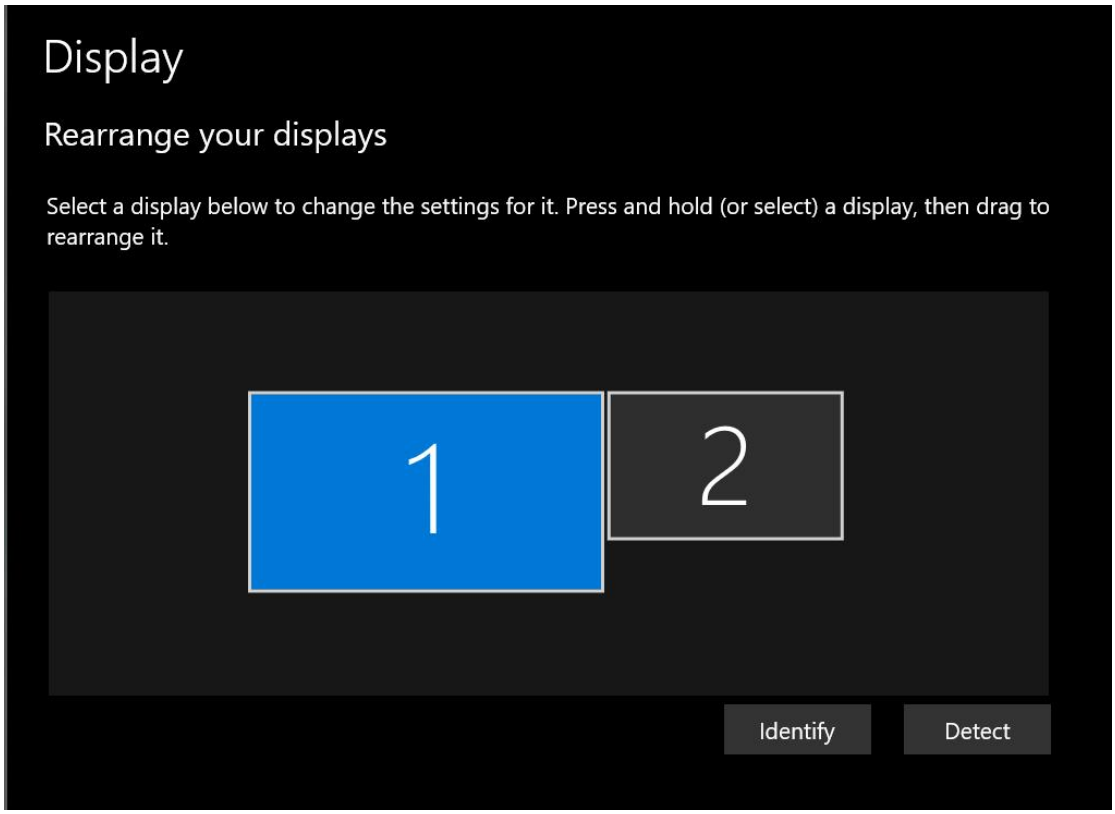


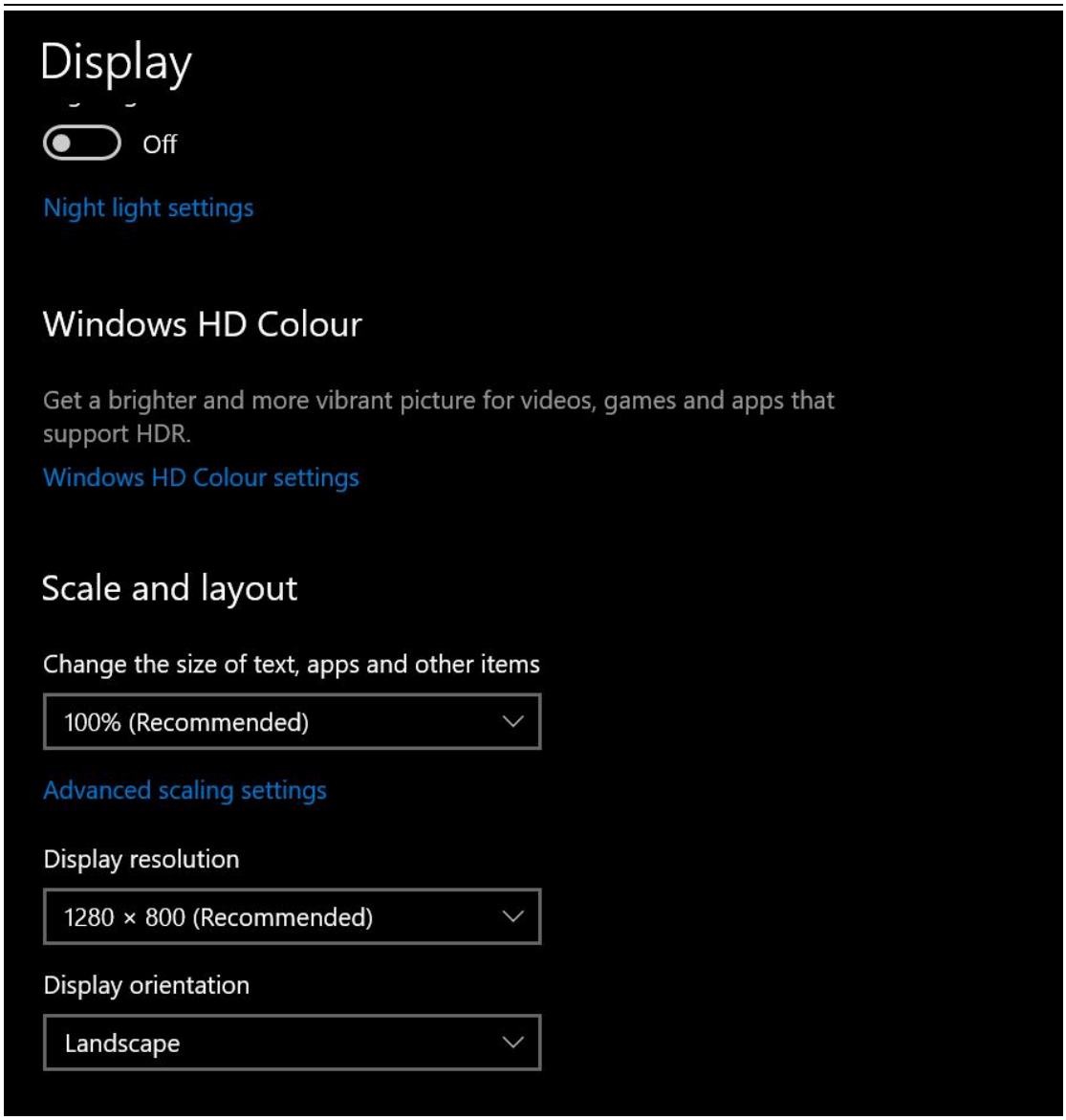

C/S Operation Structure Diagram

## 3. Connecting the Signature Display Products

### 3.1 Computer Settings

Connect the multi-head cable to the PC, and the other end to the handwriting screen. If you are using the SDK to interface with the business system, you need to set the handwriting screen to extended mode and set the resolution to 1280 * 800 (The above configuration is only needed for the signature display products: 10.1 inch products/UG-1070 Series and the display product UG0501DL).


Display
Rearrange your displays
Select a display below to change the settings for it. Press and hold (or select) a display, then drag to rearrange it.
1
2
Identify
Detect




### 3.2. DisplayLink

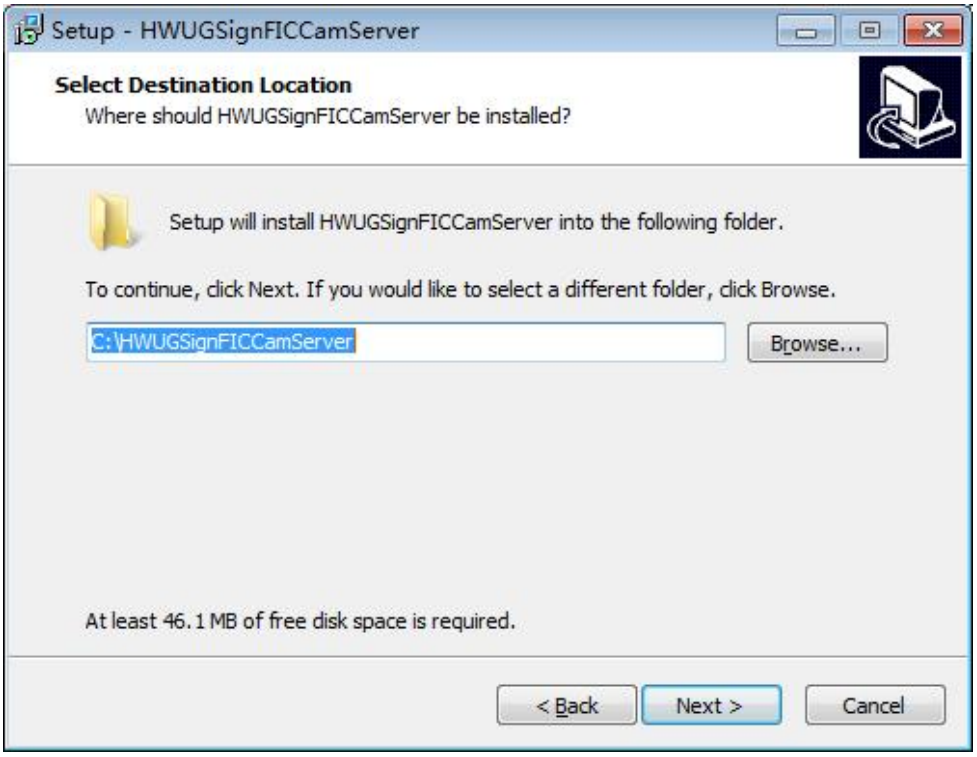
When the cable that comes with the signature display does not have HDMI port, you need to install the DisplayLink driver for normal display of the digital screen. The official download link is below:
https://www.synaptics.com/products/displaylink-graphics/downloads

## 4. SDK Usage Instructions

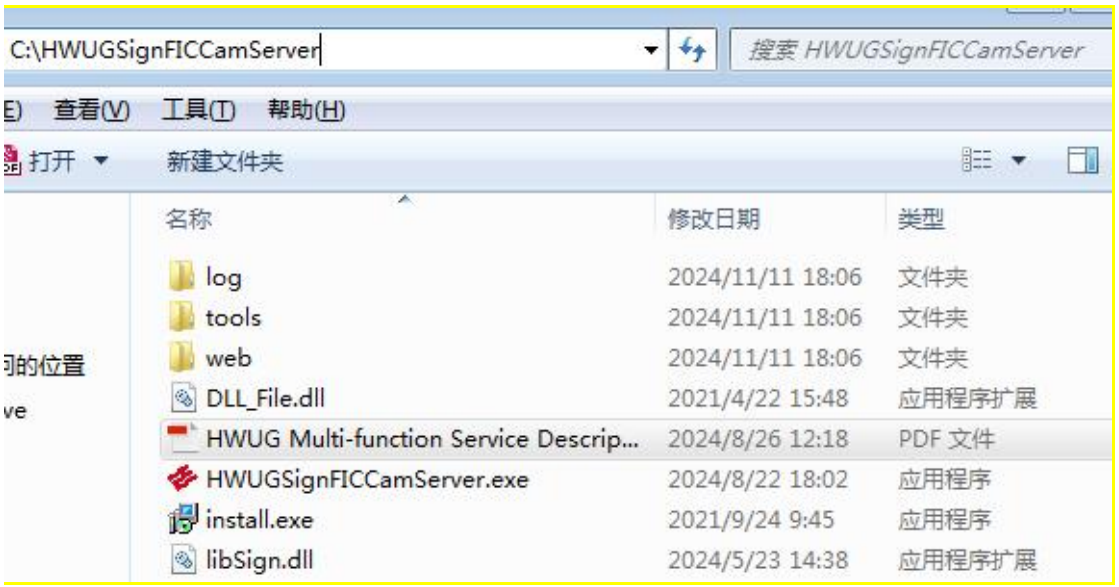
### 4.1. Browser/Server (B/S) Structure SDK

For B/S structure SDK, the developer can find the Service program/API documentation/Interface code examples (HTML5 and JavaScript) in the EXE application installation package. The EXE is intended to create the quick startup icon

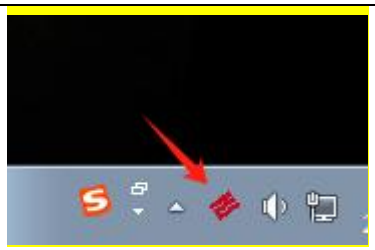
of the service program on the desktop and to set the automatic startup of the service program after the installation.
Once the B/S structure SDK installation package is retrieved, double-click the installation, and then go to the installation directory to find the Service program/API documentation/Interface code examples.




Setting Installation Path

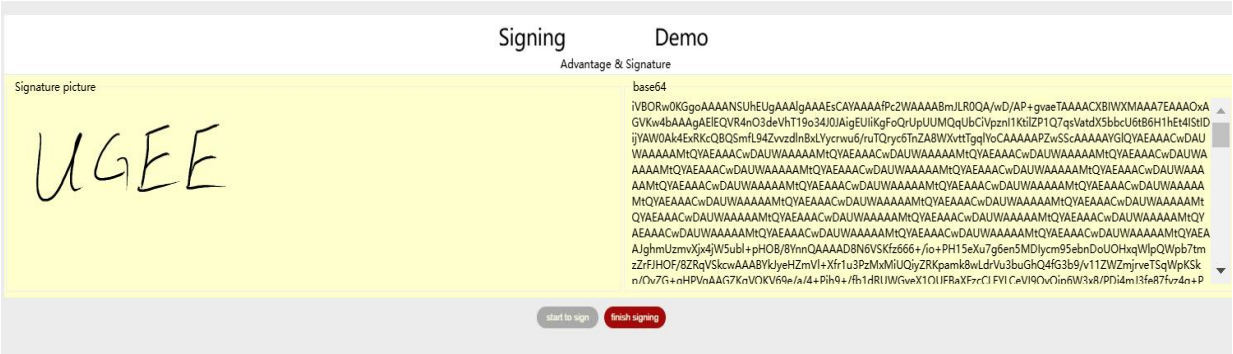



Directory of Folders after Installation



The red icon indicates that the service program is running

After the installation is completed, make sure the service program HWUGSignFICCamServer.exe is running normally (As shown above, you may check whether there is a red icon on the taskbar in the lower right corner of your computer). Open the HTML page in the web folder of the installation directory and test it. If the signature function runs normally, you can start the software development.




Base64 Sample

```
var wsUri = "ws://localhost:12001/pc";
var signUrl = "";
var isOpenUrl = false;
var websocket = null;
window.onload = initWebSocket();

    function initWebSocket() {
        btninit();
            try {
                checkSocket();
                if ( websocket && websocket.readyState == 1 ){
                    console.log("websocket close");
                    websocket.close();
                }

                websocket = new WebSocket( wsUri );
```

Websocket Connection

```
function start()
{
    if ( websocket != null )
    {
        var str1="{\"typeName\":\"UgeeExtendUrl\",\"message\":\""+signUrl+"\"}";
        websocket.send(str1);
        console.log( "string sent :", '"'+str1+'"' );
        str1 = "{\"typeName\":\"UgeeStartSign\",\"message\":\"240@200@600@300@5@\"}";
        websocket.send(str1);
        console.log( "string sent :", '"'+str1+'"' );

    }
```

Push signature popups and form URLs to the handwritten screen for display

```
websocket.onmessage = function (evt) {
    var obj = JSON.parse(evt.data);
    if("UgeeSignBase64" == obj.typeName){
      document.getElementById('pic').src=''+obj.message;
      document.getElementById('base').innerHTML = obj.message;
```

Data callback, receive Base64 encoding of signature image and display in HTML

**Remark:** The above code sample is for reference only, the Websocket ws address and interface name of each SDK may be different, please refer to your actual code.

### 4.2. Client/Server (C/S) Structure SDK

For the C/S structure SDK, UGEE provides documentation for download in the form of rar/zip archives, which contains API documentation/Solution engineering/DLL.

Development Environment: Microsoft Visual Studio 2015
.net framework: .net framework4.0

### 4.3. SDK Release Notes

- **HWUGSignFICCamServer1.0.1.7_EN.exe**
  Windows B/S SDK for all 10.1" signature display (e.g. UG-1070 Serials)
  Applicable model: 10.1" signature display (e.g. UG-1070 Serials)
  Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
  Supported browsers: All Chromium kernel browsers
  Development Language: JavaScript

- **HWUG Multi-function E-signature Demo**
  Windows C/S SDK for all 10.1" signature display (e.g. UG-1070 Serials)
  Applicable model: 10.1" signature display (e.g. UG-1070 Serials)
  Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
  Development Language: C#

- **HWUGSign_for_Linux_X86.rar**
  Linux B/S SDK for 10.1" signature display (e.g. UG-1070 Serials)
  Applicable models: 10.1" signature display (e.g. UG-1070 Serials)
  Supported Systems: Linux Debian, Ubuntu, Mint, etc.
  Supported browsers: All Chromium kernel browsers
  Development Language: JavaScript
  Supported processor architectures: X86

- **Sign05Server_EN.rar**
  Dedicated Windows B/S SDK for 5" signature pad only
  Applicable models: UG0501 / UG0502 / UG0504
  Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
  Supported browsers: All Chromium kernel browsers
  Development Language: JavaScript

- **UG05Demo.rar**
  Dedicated Windows C/S SDK for 5" signature pad only
  Applicable models: UG0501 / UG0502 / UG0504
  Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
  Development Language: C#

- **UG0501_1.1.2_x86**
  Dedicated Linux B/S SDK for 5" signature pad only
  Applicable models: UG0501 / UG0502 / UG0504
  Supported systems: Linux Debian, Ubuntu, Mint, etc.
  Supported browsers: All Chromium kernel browsers
  Development Language: JavaScript

- **SDK_V1.1.1.25.rar**
  Windows C/S SDK for calling DLL and providing raw handwritten data
  Applicable models: All UGEE products
  Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
  Development Language: C#/C++

- **ActiveX_2.0.6.5**
  SDK for Windows OCX control development, support (B/S-C/S) structure
  Applicable models: All UGEE products

Supported Systems: Windows XP/Windows 7/Windows 8/Windows 10/Windows 11
Supported Browsers: Browsers that can reference the OCX control, it is recommended to use it in Internet Explorer 11 or below
Development language: C#/C++/JavaScript