# Appendix.1 Setting up Active USB-COM port driver When Using UWP Application

This manual describes the procedure for setting up Active USB-COM port driver to use UWP applications (hereinafter referred to as "UWP apps").

COM port constructed according to the setup procedure described in "ActiveUSBCOM_UsersGuide.pdf" (hereinafter referred to as "regular setup") cannot be used for the UWP apps.

To use the COM port via this driver for the use of an UWP app, set up the driver for the UWP app referring to "3. Setting up Driver for UWP app."

There are some specification differences between the driver set up for the UWP app and the regularly set up driver. For details, refer to "2. Differences in Driver Operation between Setup for UWP App and Regular Setup."

## 1. Operation Environment

■ Windows OS (When this version is released)

Windows OS having confirmed its Active USB-COM port driver operation is as follows:

Windows 10 (32bit/64bit) version 20H2/21H1/21H2

Windows 11 (64bit) version 21H2

\* For details and updated information of Windows OS supporting status, refer to the following URL.

https://www.denso-wave.com

■ Execution environment for setup and ancillary tools

Available only for the desk top mode:

(Not supporting the execution of setup and ancillary tools in the S mode)

# 2. Differences in Driver Operation between Setup for UWP Apps and Regular Setup

Differences in driver operation between setup for UWP apps and regular setup are described in the table below:

| Difference 1: Registry position for checking the device connection | The registry positions specified in "6. How to Check Connected USB Device", "6.2 How to Check Registry Information" of "ActiveUSBCOM_UsersGuide.pdf" are changed in **red bold characters** in the table below: |
|---|---|

| | Regular setup | Setup for UWP app |
|---|---|---|
| Key | HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\<br>Enum\Root\PORTS\nnnn<br>(nnnn: 4-digt optional numerals determined by Windows) | **HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\<br>Enum\DWBUS\dwserial\<br>nnnnnnnnnnnnnn<br>(nnnnnnnnnnnnnn: 14-digt optional alphanumeric characters determined by Windows)** |
| Entry | FriendlyName | FriendlyName |
| Type | REG_SZ | REG_SZ |
| Data | When connected: DENSO WAVE Active USB-COM Port (COMp) – Connected<br><br>When disconnected: DENSO WAVE Active USB-COM Port (COMp) – Disconnected<br><br>* No indication of "Disconnected" just after installation<br><br>(p: COM port number) | When connected: DENSO WAVE Active USB-COM Port (COMp) – Connected<br><br>When disconnected: DENSO WAVE Active USB-COM Port (COMp) – Disconnected<br><br>* No indication of "Disconnected" just after installation<br><br>(p: COM port number) |

| | Regular setup | Setup for UWP app |
|---|---|---|
| Key | HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\<br>Enum\Root\PORTS\nnnn\<br>Device Parameters<br>(nnnn: 4-digit optional numerals determined by Windows) | **HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\<br>Enum\DWBUS\dwserial\<br>nnnnnnnnnnnnnn\<br>Device Parameters<br>(nnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)** |
| Entry | ComNumber | ComNumber |
| Type | REG_DWORD | REG_DWORD |
| Data | Indicating COM number in 4 bytes<br><br>(Ex) COM3: 0x00000003 | Indicating COM number in 4 bytes<br><br>(Ex.) COM3: 0x00000003 |

| | Regular setup | Setup for UWP app |
|---|---|---|
| Key | HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\ | **HKEY_LOCAL_MACHINE\<br>SYSTEM\CurrentControlSet\** |

| | | Enum\Root\PORTS\nnnn\ Device Parameters (nnnn: 4-digit optional numerals determined by Windows) | <span style="color:red">Enum\DWBUS\dwserial\ nnnnnnnnnnnnnn\ Device Parameters (nnnnnnnnnnnnnn: 14-digit optional alphanumeric characters determined by Windows)</span> |
|---|---|---|---|
| | Entry | ConnectStatus | ConnectStatus |
| | Type | REG_DWORD | REG_DWORD |
| | Data | Indicating the connecting status in 4 bytes. When connected: 0x00000001 When disconnected: 0x00000000 | Indicating the connecting status in 4 bytes. When connected: 0x00000001 When disconnected: 0x00000000 |
| | When porting the existing Win32 app and .NET app using this registry to UWP app, change the registry position to be referred. | | |
| Difference 2: Driver configuration | The driver configuration specified in "3.1 About Driver Configuration of Active USB-COM Port Driver" of "ActiveUSBCOM_UsersGuide.pdf" is changed in **<span style="color:red">red bold characters</span>** in the table below: | | |

| Regular setup | Setup for UWP app |
|---|---|
| This driver is composed of two drivers as shown below: Driver for virtual COM port: dwserial.sys (Resident driver) Driver for USB: dwusb.sys (Plug and play driver) | This driver is composed of <span style="color:red">three</span> drivers as shown below: <span style="color:red">Virtual path driver: dwbus.sys (Resident driver)</span> Driver for virtual COM port: dwserial.sys (Resident driver) Driver for USB: dwusb.sys (Plug and play driver) |

When files of this driver such as sys file are registered in the PC security software, additionally register dwbus.sys.

To check if dwbus.sys is installed normally, check that "DENSO WAVE Static Bus Enumerator" is under "System Devices" in Device Manager.
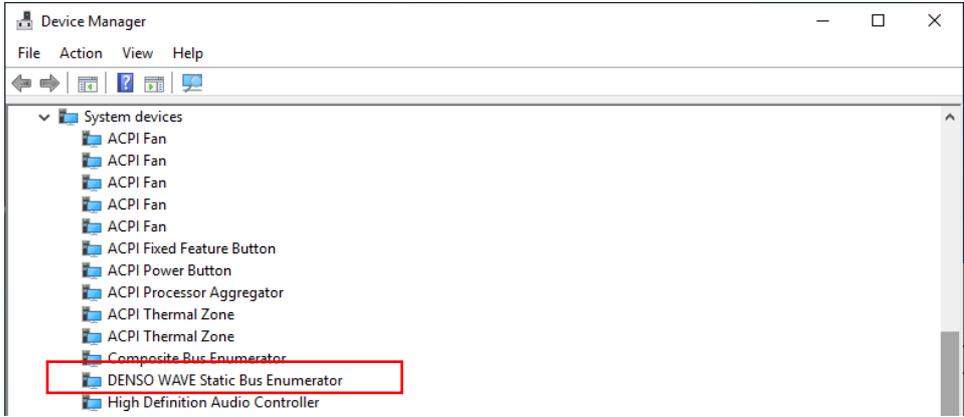
# 3. Setting up Driver for the UWP App

To use this driver for the UWP app, the following procedure is prepared instead of "2.1 How to install Active USB-COM Port Driver" of "ActiveUSBCOM_UsersGuide.pdf."

- Double-click the file **"Install_UWP.bat"** to execute.
- Execute the file "install.exe" by **specifying the option "-uwp" or "-UWP"** from the command prompt.

## Execute by double-clicking "Install_UWP.bat"

This method generates one COM port to the smallest available COM port number, which is 3 or after, managed by PC. The installation procedure is described below:

1) Execute "Install_UWP.bat."

   When the user account control message screen is displayed, select "Yes (Y)." InstallShield wizard screen is displayed, and select "Next (N)."
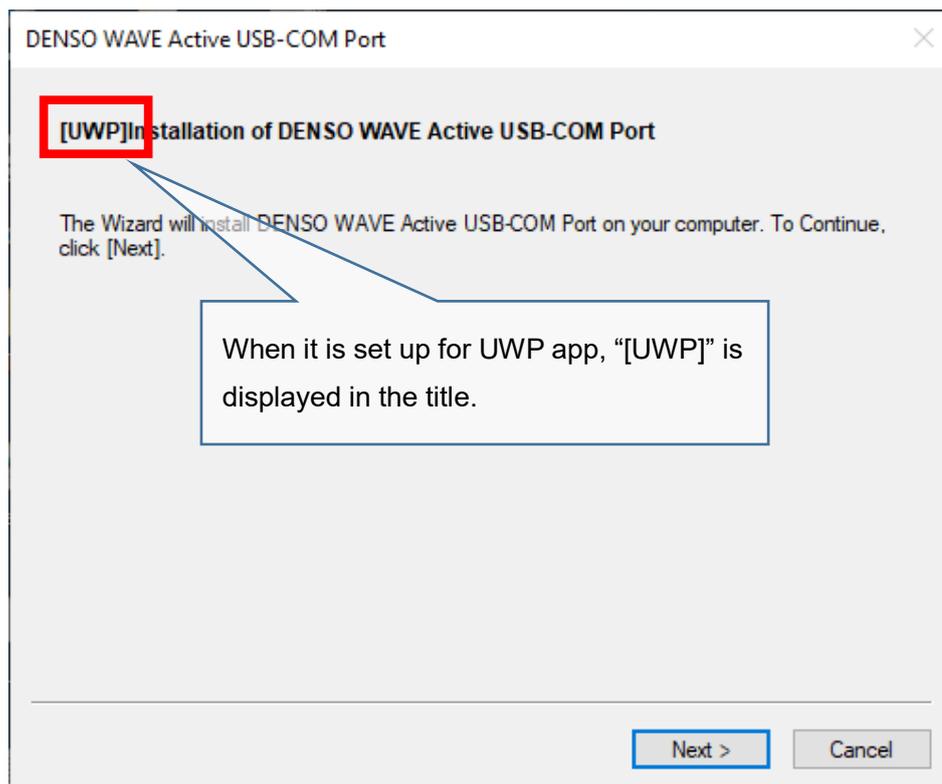


As for the subsequent operations, follow "2.1.1 Double-click 'install.exe' to execute" of "ActiveUSBCOM_UsersGuide.pdf."

## Execute "install.exe" by specifying the option "-uwp" from the command prompt

[Format example]

>start /wait install.exe –uwp

[Return value]

Refer to 2.1.8 of "ActiveUSBCOM_UsersGuide.pdf."

[Use in combination with other options]

All command line options from 2.1.3 to 2.1.7 of "ActiveUSBCOM_UsersGuide.pdf" can be used in combination with "-uwp" option.

(Example: Specifying COM number as "10" to set up the driver for UWP

start /wait install.exe –uwp –p 10.)