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# USB 3.0 Host Controller Driver

ISG-NC1-200061

Rev.0.04

## Driver Package Information

February 17th, 2011

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### Introduction

This manual is intended for engineers who wish to utilize the RENESAS  $\mu$ PD720200 and  $\mu$ PD720200A USB 3.0 Host Controller in a Windows™ based system using RENESAS device drivers.

### Notice

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, we changed the old company name to new company name in driver package from Ver.2.0.4.0.

### Target Device

USB3.0 Host Controller  $\mu$ PD720200 and  $\mu$ PD720200A

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## 1. Overview

This software is Renesas' original device driver for Windows Operating System that operates USB 3.0 Host controllers  $\mu$ PD720200 and  $\mu$ PD720200A.

### 1.1 System Requirements

The device drivers for the  $\mu$ PD720200 and  $\mu$ PD720200A work under the following Operating Systems.

1. Microsoft Windows XP (x86 and x64)
2. Microsoft Windows Vista (x86 and x64)
3. Microsoft Windows 7 (x86 and x64)
4. Microsoft Windows Server 2008 Release 2 (x64)

### 1.2 USB3.0 Host Controller Driver Installer Package Information

The USB3.0 Host Controller Driver Installer Package is generated by Install Shield 2010 SP1. The USB3.0 Host Controller Driver Installer Package includes the following files that provide the interface between  $\mu$ PD720200/ $\mu$ PD720200A and desktop, laptop, Docking Station, or notebook PC:

#### 1.2.1 Files

- nusb3hub.cat** : Catalog file for RENESAS Electronics USB 3.0 Root Hub Driver
- nusb3hub.inf** : INF file for installing RENESAS Electronics USB 3.0 Root Hub Driver
- nusb3hub.sys** : RENESAS Electronics USB 3.0 Hub controller Driver
- nusb3xhc.cat** : Catalog file for RENESAS Electronics xHCI Driver
- nusb3xhc.inf** : INF file for installing RENESAS Electronics xHCI Driver
- nusb3xhc.sys** : RENESAS Electronics eXtensible Host Controller Interface (xHCI) Driver
- nusb3mon.exe** : RENESAS Electronics USB3.0 Host Controller monitor application
- nusb3mon.dll** : RENESAS Electronics USB3.0 Host Controller monitor application DLL
- nusb3utl.exe** : RENESAS Electronics USB3.0 Host Controller Utility
- nusb3ver.dll** : RENESAS Electronics USB3.0 Host Controller driver version
- nusb3mon.exe.mui** : Monitor application Multi Language Interface file
- nusb3utl.exe.mui** : Utility Multi Language Interface file

**1.2.2 LCID**

The USB3.0 Host Controller Driver Installer Package supports the following 30 languages:

Table 1 Local ID (LCID) of Microsoft

| LCID(Hex) | Language              | LCID(Hex) | Language               | LCID(Hex) | Language              |
|-----------|-----------------------|-----------|------------------------|-----------|-----------------------|
| 0401      | Arabic                | 040D      | Hebrew                 | 041B      | Slovak                |
| 0404      | Traditional Chinese   | 040E      | Hungarian              | 041D      | Swedish               |
| 0405      | Czech                 | 0410      | Italian                | 041E      | Thai                  |
| 0406      | Danish                | 0411      | Japanese               | 041F      | Turkish               |
| 0407      | German                | 0412      | Korean                 | 0424      | Slovenian             |
| 0408      | Greek                 | 0413      | Dutch                  | 0804      | Simplified Chinese    |
| 0409      | English               | 0414      | Norwegian (Bokmal)     | 0816      | Portuguese (Portugal) |
| 040A      | Spanish (Traditional) | 0415      | Polish                 | 0C04      | Chinese (Hong Kong)   |
| 040B      | Finnish               | 0416      | Portuguese (Brazilian) | 0C0A      | Spanish (Modern)      |
| 040C      | French                | 0419      | Russian                | 2C0A      | Spanish (Argentina)   |

**1.2.3 Command Line Options**

The USB3.0 Host Controller Driver Package supports the following command Line options:

- /s** : Silent install command (refer to section 2.4.1)
- /r** : Generate setup.iss file used for silent install (refer to section 2.4.2)
- /v"CHECK\_HW\_EXIST=1"** : Check existence of USB3 Host Controller (refer to section 2.5)
- /v"CHECK\_HW\_EXIST=1 NO\_MESSAGE=1"** : Hide the pop-up message when Host Controller is not found on used "CHECK\_HW\_EXIST=1" option (refer to section 2.9)
- /v"NO\_MONITOR=1"** : Monitor application not installed when previous driver package is not installed (refer to section 2.6)
- /v"NO\_UTILITY=1"** : Utility application not installed when previous driver package is not installed (refer to section 2.7)
- /v"SET\_SEL\_SUS\_MODE1=1"** : Disable the Selective Suspend function. (refer to section 2.8)
- /v"U1U2\_DISABLE=1"** : Disable the Dynamic U1/U2 state control function (refer to section 2.10)
- /v"U1U2\_UTL\_DISABLE=1"** : Not displaying the check box to disable the Dynamic U1/U2 state control function on "nusb3utl.exe" (refer to section 2.11)

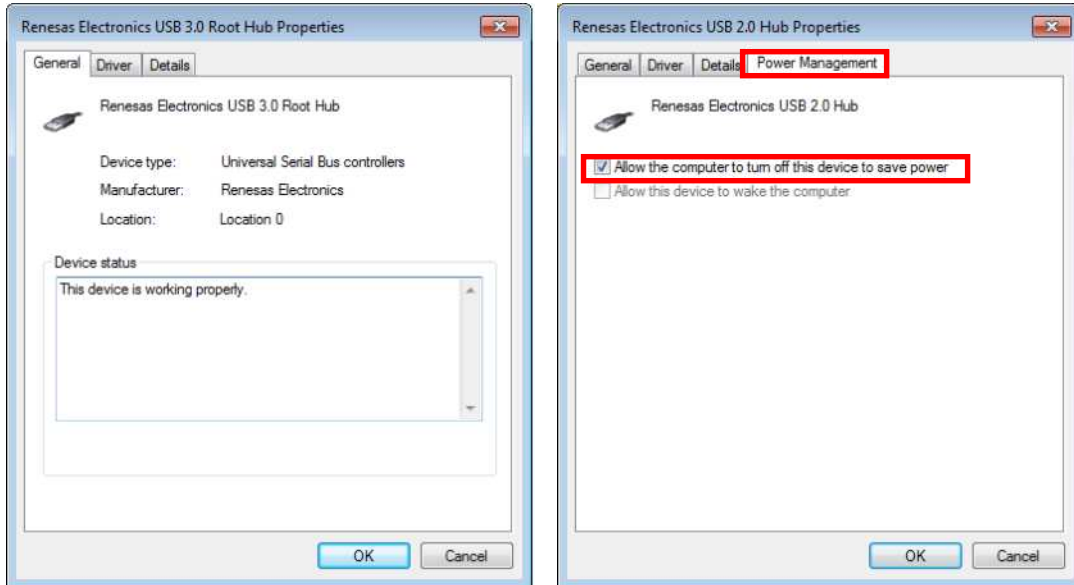
### 1.3 Installation

The installation procedure includes 3 main steps:

1. Installing the driver software package to a computer
2. Installing the hardware
3. Installing the driver for USB 3.0 host controller.

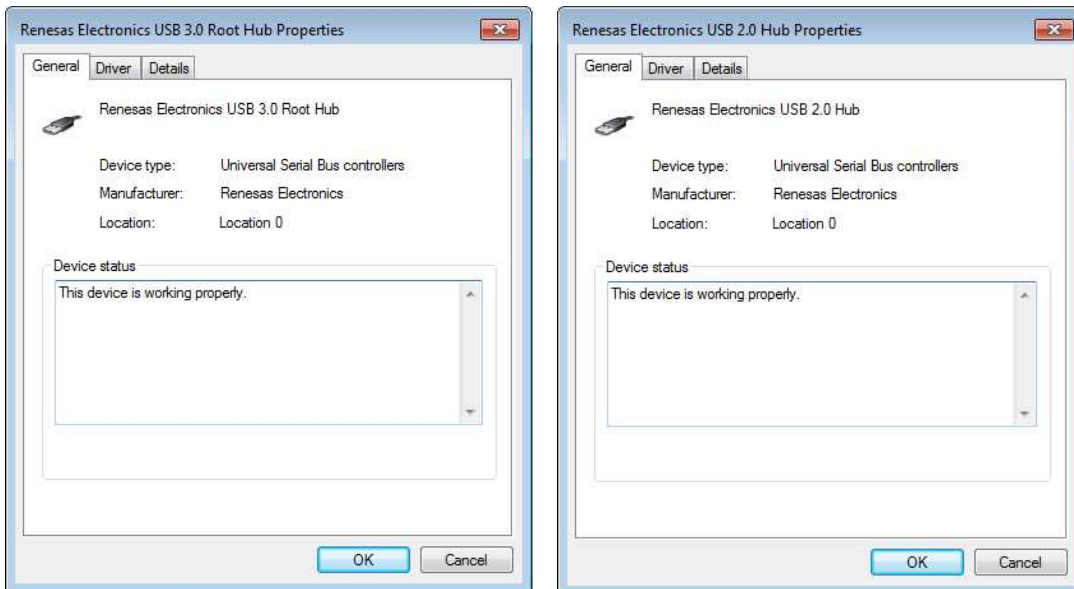
### 1.4 Selective Suspend Function

USB 3.0 Host Controller Driver supports the Selective Suspend function for External Hubs from Ver2.0.20.0 or later. When RENESAS-USB3-Host-Driver-20200-setup.exe is installed without command line option on your PC, the Selective Suspend function is supported as follows. End Users can change it to “disable” on the Power Management tab of the External Hub’s property page in Device Manager.



If you want to disable the Selective Suspend function, use the install option (/v"SET\_SELSSUS\_MODE1=1"). Please see section 2.8.

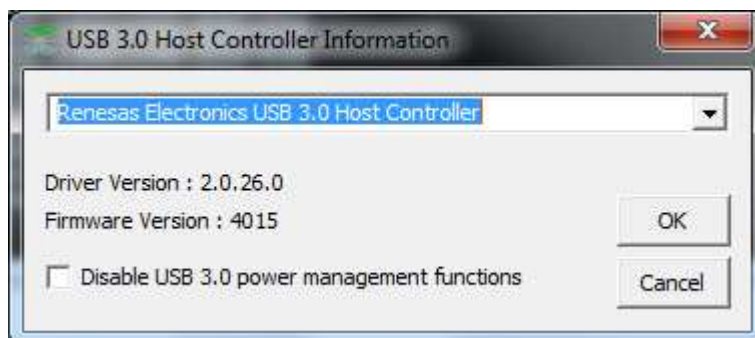
When using this command line option, the Selective Suspend function can be disabled as follows. This is same as in Ver2.0.4.0 or earlier.



**Note :** Selective Suspend function for External Hub is based upon Windows 7.

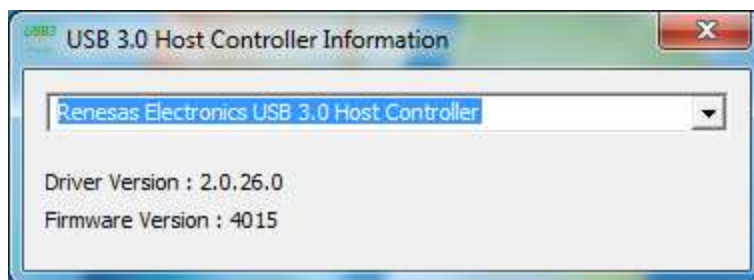
## 1.5 Dynamic U1/U2 state control Function

USB 3.0 Host Controller Driver supports the Dynamic U1/U2 state control function (USB3.0 power management) from Ver2.0.4.0 or later. Also end user can disable this on USB 3.0 Host Controller Utility (nusb3ult.exe) from ver2.0.26.0 or later.



If you want to disable the Dynamic U1/U2 state control function, please use the install option (/v"U1U2\_DISABLE=1"). Please see section 2.10.

If you don't want to display this check-box, use the install option (/v"U1U2\_UTL\_DISABLE=1"). Please see section 2.11. In using this command line option, the end user cannot change the setting of Dynamic U1/U2 state control function on USB 3.0 Host controller Utility. This is same as in Ver2.0.4.0 or earlier.

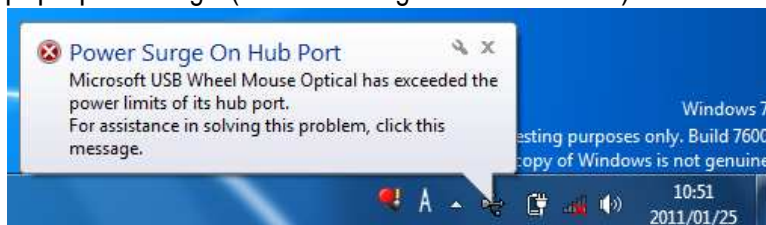


## 1.6 Over Current Function

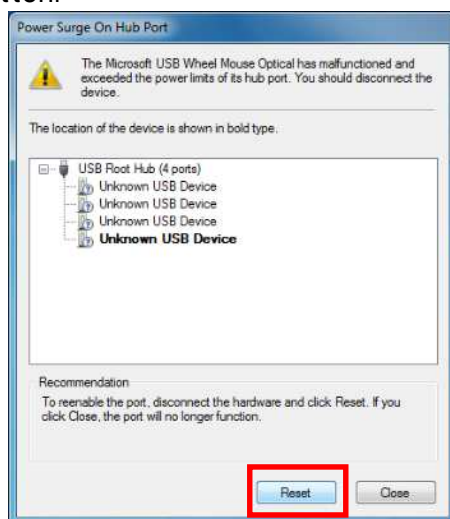
RENESAS USB 3.0 Host Controller Driver uses the Microsoft standard Over Current application.

To recover from the Over Current status, End Users have to reset the status with the application or restart the PC. The reset method with the application is shown below.

1. Click the pop up message (“Power Surge On Hub Port”)



2. Click the “Reset” button.



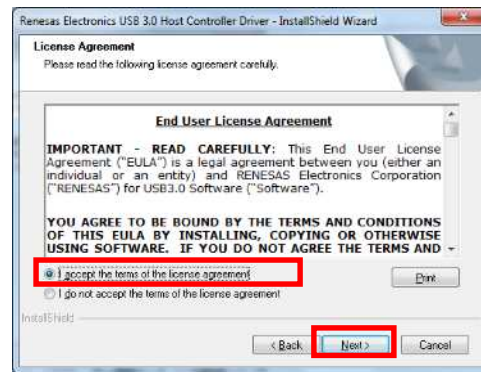
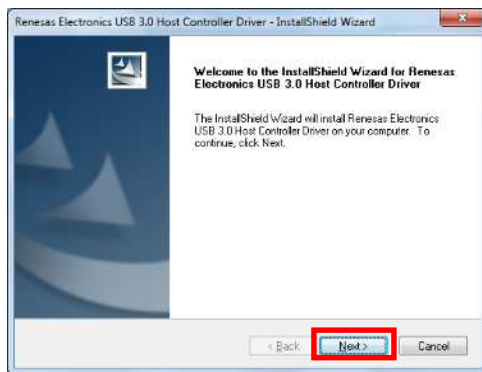
Note : RENESAS USB 3.0 Host Controller Driver’s behavior differs from Microsoft’ behavior.

## 2. INSTALLING DRIVER

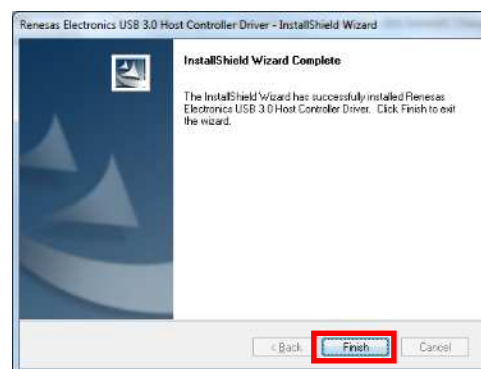
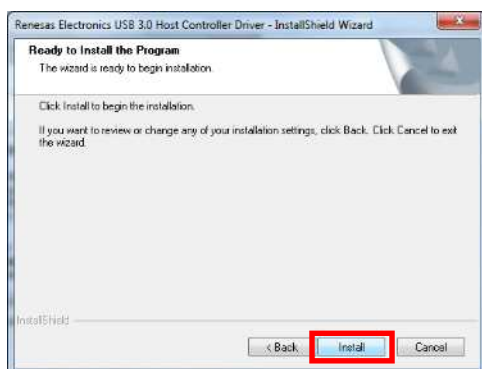
This chapter describes how to install drivers for  $\mu$ PD720200 and  $\mu$ PD720200A. All the following sections are written based on Windows 7. Note that the comments and conditions for other OS platforms may be different from these sections.

### 2.1 Installing the drivers for the $\mu$ PD720200 and $\mu$ PD720200A

1. Save the **RENESAS-USB3-Host-Driver-xxxx-Setup.exe** on your PC at location of your choice. The **xxxx** portion shows version of installer package. This document is based on **RENESAS-USB3-Host-Driver-2040-Setup.exe**.
2. Start the **Run...** command on the **Start** menu and **Browse...** for the **RENESAS-USB3-Host-Driver-2040-Setup.exe** in your folder containing the driver files. Click on the **OK** button to start the installation procedure.
3. When the following dialog box is displayed, click on the **Next** button.
4. After accepting the terms in the License Agreement, click on the check box and the **Next** button.



5. Click on the **Install** button to start installing the Renesas Electronics drivers.
6. Click on the **Finish** button to exit the driver installation program.

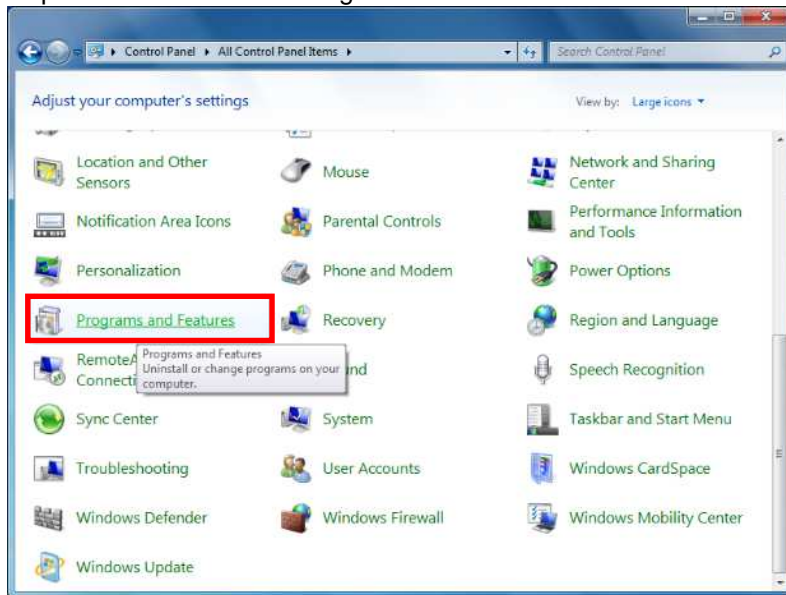




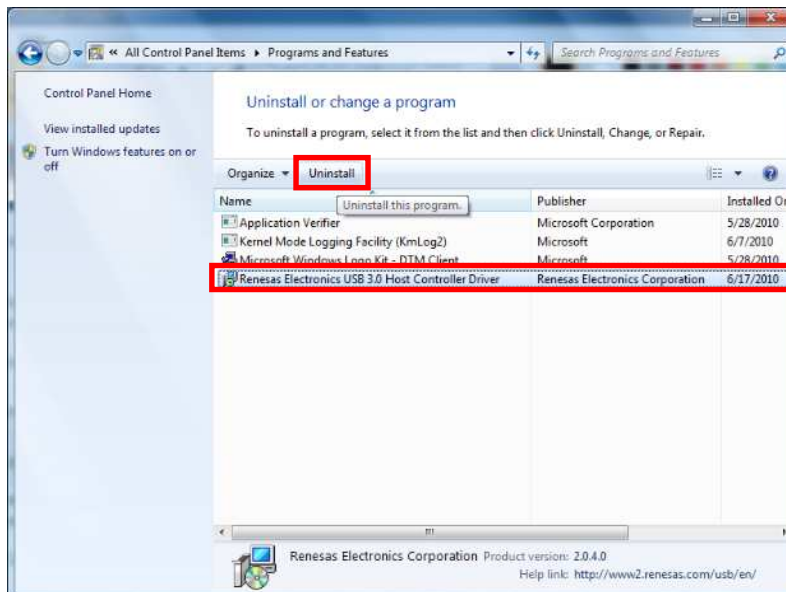
**2.2 Uninstalling the drivers for the  $\mu$ PD720200 and  $\mu$ PD720200A**

RENESAS-USB3-Host-Driver-xxxx-Setup.exe can uninstall only by using Programs and Features in Control Panel. This section describes how to uninstall in more detail.

1. Open “control panel”. And click the “Programs and Features”.



2. When the following dialog box is displayed, select the **Renesas Electronics USB3.0 Host Controller Driver**. Click **Uninstall** button.

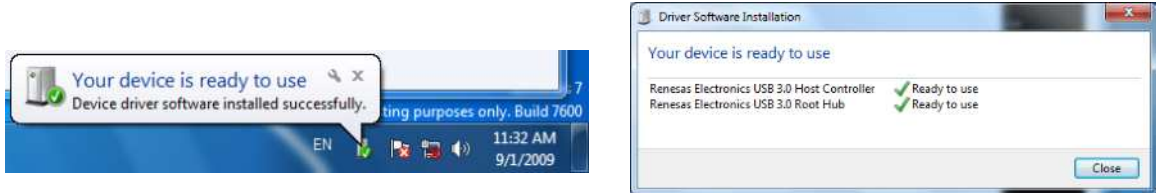


3. Start the Uninstalling.
4. Click on the **Finish** button to exit the uninstall program.

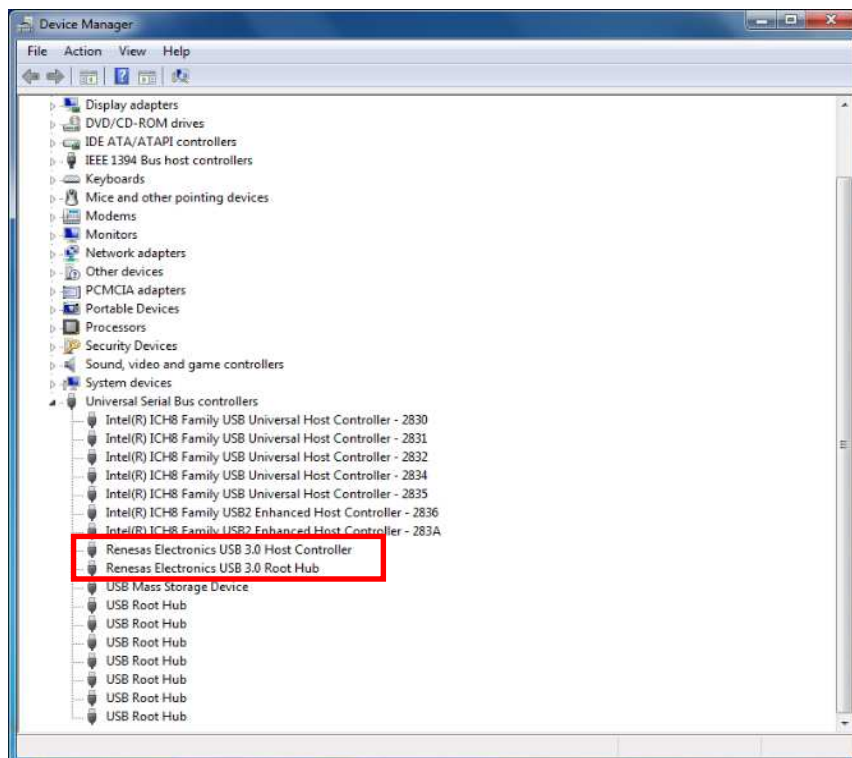


### 2.3 Installing the host controller drivers

1. The computer will detect the USB 3.0 Host controller at power on, or when a card is plugged into a PCI Express or Express card slot. Once the Host Controller is detected, a dialog box is displayed and should read “Device driver software installed successfully.” When you click this dialog box, the Driver software Installation dialog box is displayed as shown,



2. From the **Start** menu, click on the **Control Panel**. From **Control Panel**, click on **System and Security**, and then click on the **Device Manager**. You should find the **RENESAS Electronics USB 3.0 Host Controller** and the **RENESAS Electronics USB 3.0 Root Hub** under the **Universal Serial Bus Controllers** entry in the Device Manager. If there is not an “X” or “!” beside these entries, the driver installation for USB 3.0 Host Controller has finished successfully.



## 2.4 Silent installation of the drivers for the $\mu$ PD720200 and $\mu$ PD720200A

A normal installation receives the necessary input from end users in the form of responses to dialog boxes. However, a silent installation does not prompt the end user for input. A silent installation must get its end-user input from an InstallShield silent response file. (.iss file)

### 2.4.1 Silent installation

1. Uninstall the drivers for the  $\mu$ PD720200 and  $\mu$ PD720200A, if the drivers are installed on your PC. See section 2.2.
2. Run the following command:  
**setup.exe /s**

**Note: When you run the silent installation command, the return code file will be generated in the “setup.log” file.**

### 2.4.2 Recording the response file (setup.iss)

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Move the directory of the **RENESAS-USB3-Host-Driver-xxxx-Setup.exe** or **Setup.exe** on your PC to the location of your choice.
3. Run the following command and run the installation step (see section 2.1):  
**setup.exe /r /f1“.\setup.iss”** (Save the setup.iss file in the current directory.)

## 2.5 Option: Check existence of USB3 Host Controller

This option checks existence of a USB3 Host Controller. If a USB3 Host controller doesn't exist on your PC, the device driver is not installed on your target PC. On the other hand, if a USB3 Host Controller exists, the device driver is installed.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run one of the following Installing commands.

Ex.1) `setup.exe /v"CHECK_HW_EXIST=1"`

Ex.2) `setup.exe /v"CHECK_HW_EXIST=1 NO_MESSAGE=1"`

3. If USB 3.0 Host Controller doesn't exist on your PC, Installer stops the installation. Also the following pop-up is shown when using Ex. 1 command.



**Note : If this pop-up message doesn't need to show, please use the “NO\_MESSAGE” option, which is shown as Ex. 2 above and described in section 2.9 in more detail.**

**Note :** The CHECK\_HW\_EXIST option is supported from Ver.1.0.14.0.

**Note :** It is necessary to restart your PC after uninstalling the device driver in the case of an existing USB3 Host Controller. This is a restriction of this command line option. This option checks existence of a USB3 Host Controller. When USB3 Host Controller doesn't exist on your target PC, this option causes the driver not to be installed.

## 2.6 Option: Monitor Application not Installed

This option causes the Monitor application of USB 3.0 not to be installed. If you don't want to install the Monitor application, you should use this option on command prompt.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.1) setup.exe /v"NO\_MONITOR=1"

**Note :** This option is supported from Ver.1.0.19.0.

**Note :** If there is a USB3.0 Monitor Application already installed, it is necessary to uninstall the USB3 driver package of the previous version before installing the new USB3 driver package (v1.0.19.0 or later).

## 2.7 Option: Utility Application not Installed

This option causes the Utility application of USB 3.0 not to be installed. If you don't want to install the Utility application, you should use this option on command prompt.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.) setup.exe /v"NO\_UTILITY=1"

**Note :** This option is supported from Ver.2.0.4.0.

**Note :** If there is a USB3.0 Utility Application already installed, it is necessary to uninstall the USB3 driver package of the previous version before installing the new USB3 driver package (v2.0.4.0 or later).

## 2.8 Option: Disable the Selective Suspend function

Selective Suspend function is enabled by default starting with Ver2.0.20.0. This option disables the Selective Suspend function. The Selective Suspend function is described in section 1.4. If you want to disable the Selective Suspend function, you should use this option on the command prompt.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.) setup.exe /v"SET\_SELSSUS\_MODE1=1"

**Note : This option is supported from Ver.2.0.20.0.**

**Note : Selective Suspend function for External Hubs is supported from Ver.2.0.20.0.**

## 2.9 Option: Hide the pop-up message

This option suppresses the pop-up message when it is used with the "CHECK\_HW\_EXIST" option. If you want to hide the pop-up message on the "CHECK\_HW\_EXIST" option, you should use this option on the command line.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.) `setup.exe /v"CHECK_HW_EXIST=1 NO_MESSAGE=1"`

**Note : This option is supported from Ver.2.0.20.0.**

**Note : This option can be used only with the "CHECK\_HW\_EXIST" option. If this option is used alone, it has no effect.**

## 2.10 Option: Disable the Dynamic U1/U2 state control function

The Dynamic U1/U2 state control function is enabled in default setting with Ver2.0.4.0, and this is described in section 1.5. If you want to disable the Dynamic U1/U2 state control function, please use this option on the command prompt.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.) `setup.exe /v"U1U2_DISABLE=1"`

**Note : This option is supported from Ver.2.0.26.0.**

## 2.11 Option: Disable the check-box on USB 3.0 Host Controller Utility

From ver2.0.26.0, the USB 3.0 Host controller Utility supported the check-box to disable the Dynamic U1/U2 state control function. Please see section 3.1.1 for more detail. This check-box appears by default with Ver2.0.26.0.

If you don't want to display this check-box on the USB 3.0 Host controller Utility, please use this option on the command prompt.

1. Start the **Run...** command on the **Start** menu and **open command prompt**.
2. Run the following Installing command.

Ex.) `setup.exe /v"U1U2_UTL_DISABLE=1"`

**Note : This option is supported from Ver.2.0.26.0.**

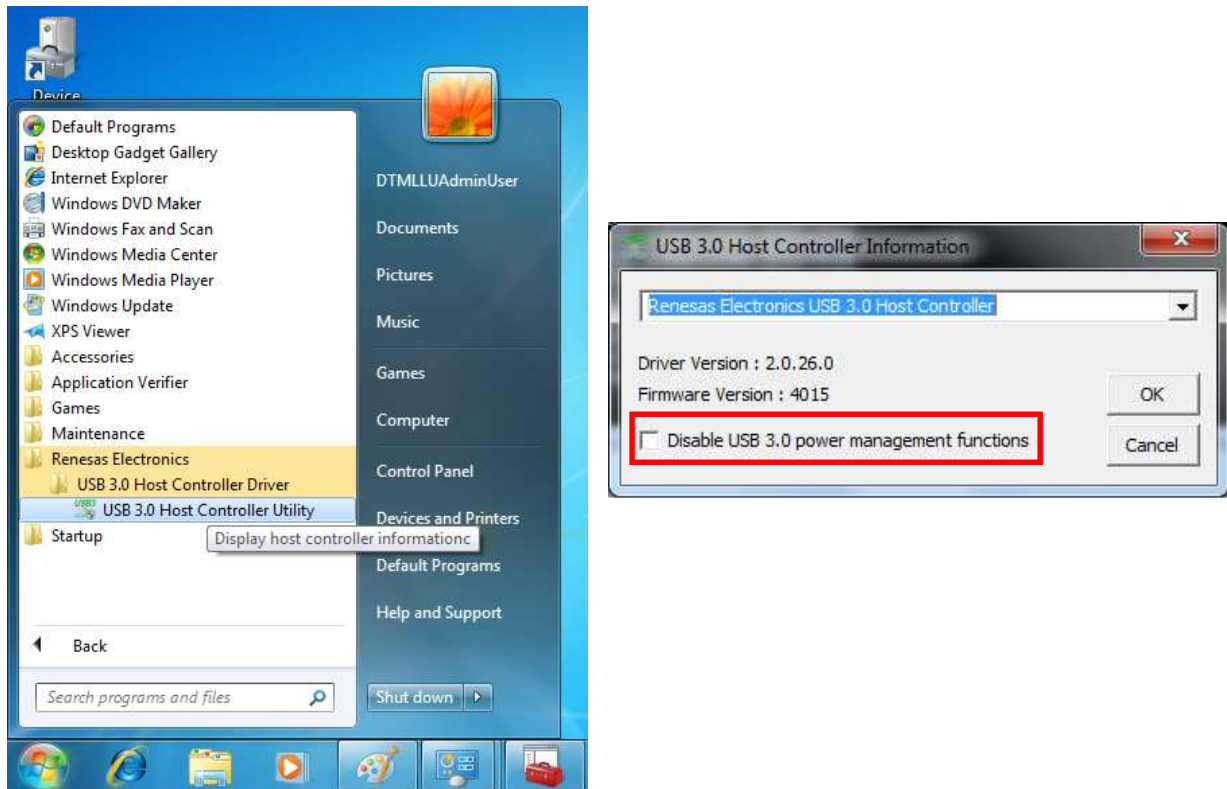
### 3. USB 3.0 HOST CONTROLLER APPLICATIONS

This chapter describes the applications in more detail. All of the following sections are written based on Windows 7. Note that the comments and conditions for other OS platforms may be different from these sections.

#### 3.1 Installing the Host Controller Applications

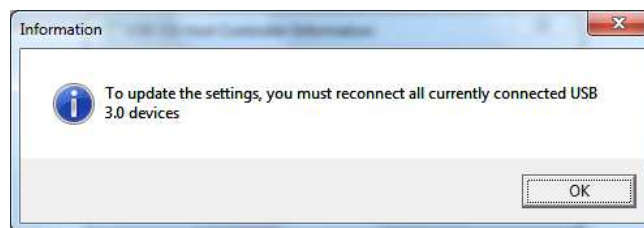
##### 3.1.1 USB3.0 Host Controller Utility

This is a mini-application which displays the version of the host controller's FW and driver. This application is installed in the "All Programs" section of the Windows start menu.



From ver2.0.26.0, the end user can disable the Dynamic U1/U2 state control function (USB 3.0 power management). This method is follows.

1. Run the "USB 3.0 Host Controller Utility (nusb3utl.exe)".
2. Click the check box of "Disable USB3.0 power management functions".
3. Click "OK" button.
4. When changing this setting, the following pop-up is shown.



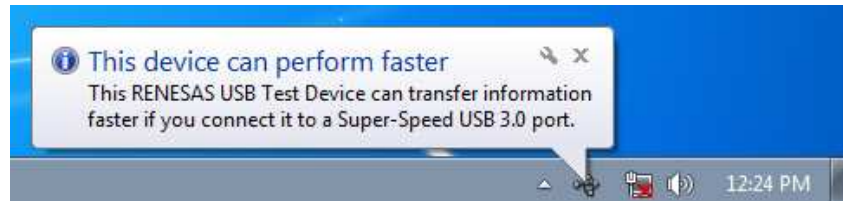
Note: To update the settings, you must reconnect all currently connected USB 3.0 devices.

**3.1.2 USB3.0 Host Controller Monitor**

This is a mini-application which displays a pop-up window giving information about the USB connection to the end user. There are only two cases that should appear in this pop-up window:

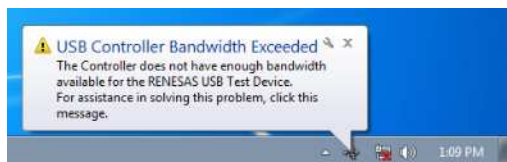
(1) **Pop-up window case1**

A USB3.0 capable device is connected to a port on the USB3.0 Host Controller via a USB2.0 hub or USB 2.0 cable. (See the section 11.1 of Universal Serial Bus 3.0 Specification for more detailed information.)

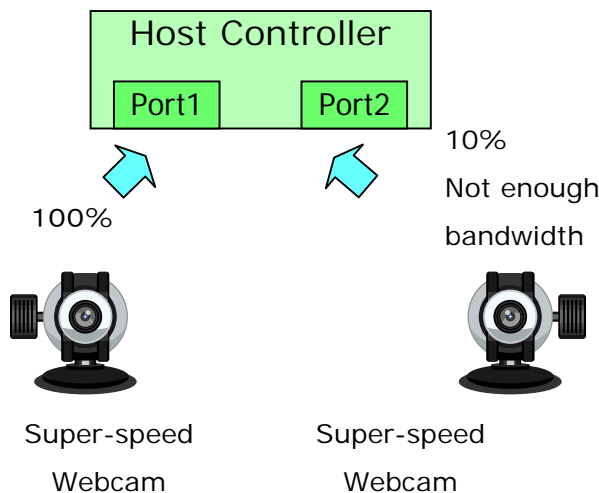


(2) **Pop-up window case2**

A Lack of bandwidth for Super Speed (SS) periodic transfers (Isochronous and Interrupt) for a port on our Host Controller was detected. This is only for super-speed periodic devices. To produce this situation, multiple super-speed isochronous devices are required.



Example)





### 4. InstallShield 2010 SP1 PROJECT FILE

This chapter describes the InstallShield 2010 SP1 project file in more detail for customizing the driver installer. InstallShield 2010 SP1 is necessary to customize a driver installer. All of the following sections are written based on Windows XP. Note that the comments and conditions for other OS platforms may be different from these descriptions.

#### 4.1 Basic settings

When USB3.0 Host driver installer package is customized, you should set the following items. These settings are necessary to customize the driver installer.

##### 4.1.1 Set the folder Renesas USB 3.0 Host Controller Driver file of Path Variables

At first you should set the absolute path of the source file folder to customize the driver installer at the following locations:

**CustomDLLSrcFolderX64** : Located the folder of Custom Action DLL(x64)

**CustomDLLSrcFolderX86** : Located the folder of Custom Action DLL(x86)

**LicenseSrcFolder** : Located the folder of license file

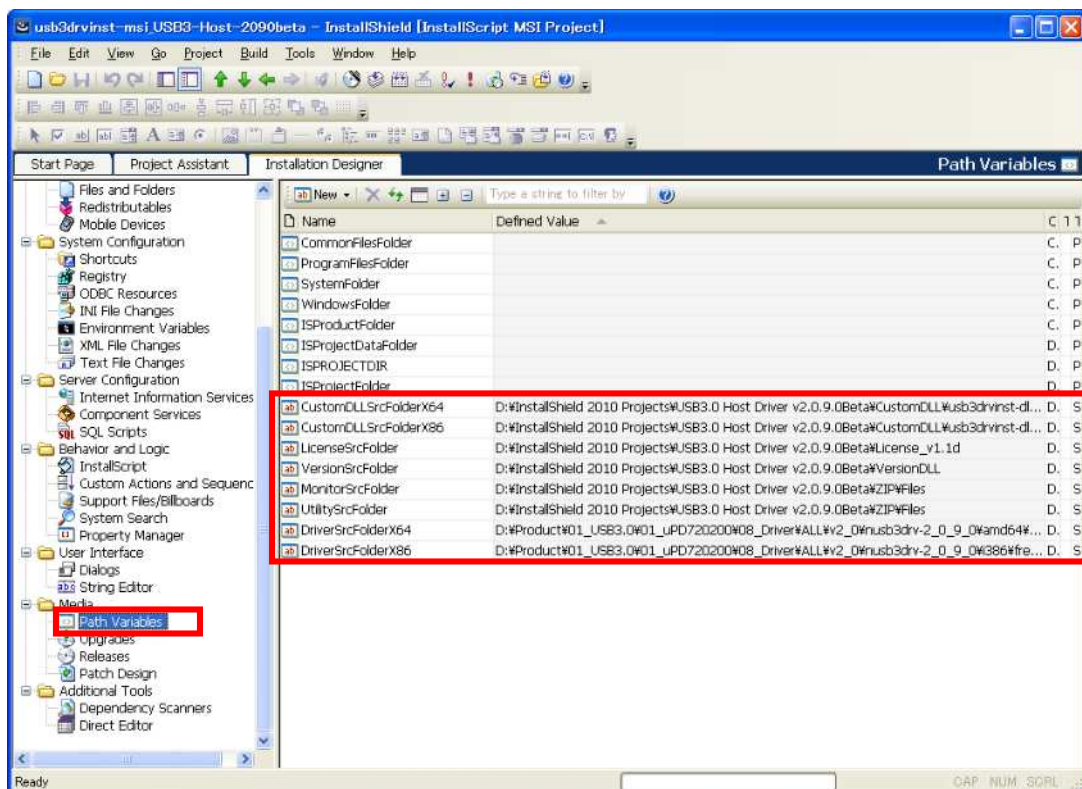
**VersionSrcFolder** : Located the folder of version DLL

**MonitorSrcFolder** : Located the folder of Monitor application file

**UtilitySrcFolder** : Located the folder of Utility application file

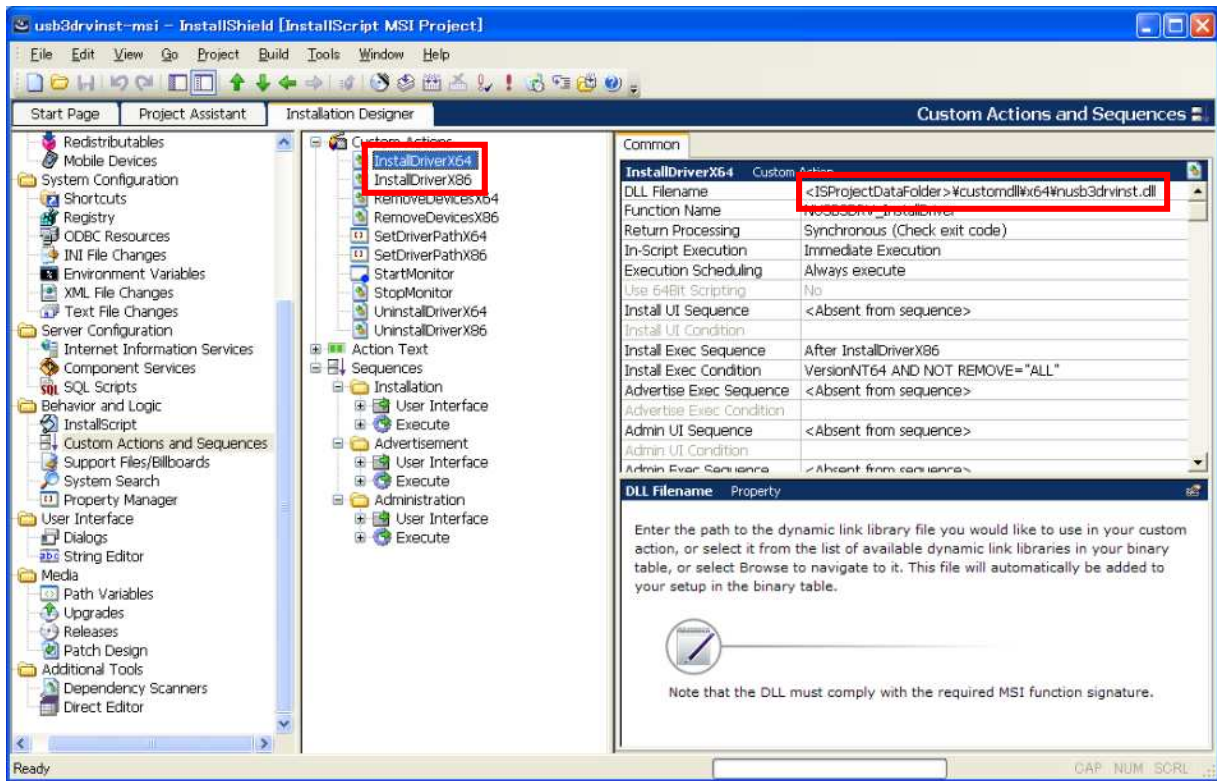
**DriverSrcFolderX64** : Located the folder of Driver(x64)

**DriverSrcFolderX86** : Located the folder of Driver(x86)



4.1.2 Set the folder of Custom DLL(x86 and x64)

You should set the absolute path of custom action DLL file(x86 and x64).

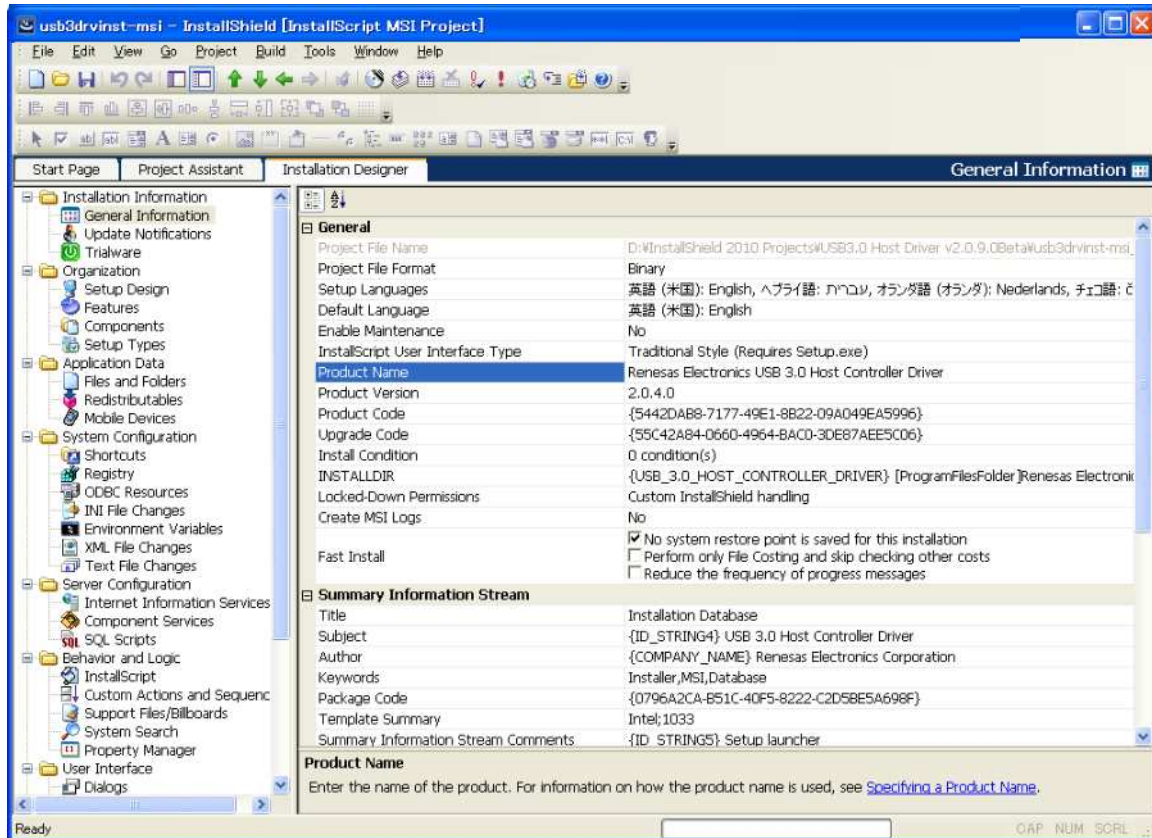


When you set the path of Custom Action DLL(x86 or x64), the following pop-up is shown. You should select “Yes” button, so the absolute path of all custom action DLL (x86 or x64) is replaced.



## 4.2 General Information

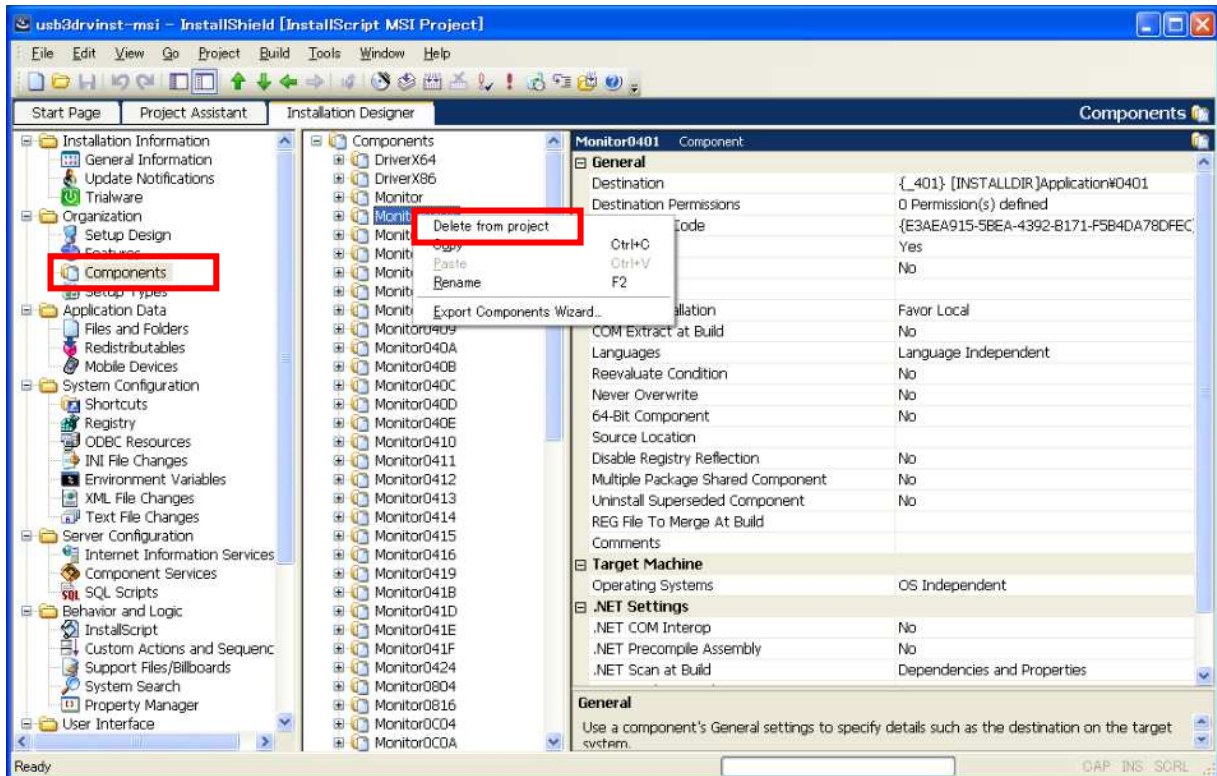
This menu is the general information for Driver Installer. For example, it is possible to change the Supported Language of driver installer, Product Name, Product Version, and so on.



### 4.3 Supported Languages for Mini Applications

We offer the MUI (Multi User Interface) files for the mini application. MUI file is the display language file for mini applications. If you change the support languages of the mini applications, you should delete the mini application components (Monitor and Utility) from project file. See the following photo.

For example, Monitor0401 folder is stored the Arabic's MUI file. So you need to delete the components of languages which you don't support. See the section 1.2 for more detail of LCID.



## 5. Appendix

### 5.1 Setup.exe Return Values and Run-Time Errors (Basic MSI and InstallScript MSI Projects) InstallShield 2010

The table below lists the errors that might occur when Setup.exe runs in a Basic MSI or InstallScript MSI project. For Setup.exe errors that might occur in an InstallScript project, see Setup.exe Return Values and Run-Time Errors (InstallScript Projects).

You can capture these return values when you call the CreateProcess API to launch Setup.exe, or use a batch file to launch Setup.exe.

Note : If an error occurs, the strings displayed might not be displayed in English if your operating system is not running in English.

| Error Number | Description  | Troubleshooting Tips  |
|--------------|--|---|
| -4           | Invalid command line.  | Verify that a valid command line is passed to Setup.exe.  |
| -3           | The installation exited because the end user canceled the installation.  | Not applicable.   |
| -1           | General error.   |   |
| 0            | Program terminated successfully.   | Not applicable.   |
| 401          | String variable is not large enough for string. InstallShield was attempting to copy a text string into a string variable. The text string was larger than the length declared for that string variable. | Check the declared length of the string variable. Increase the length to the maximum allowed value.   |
| 1150         | Setup has detected an incompatible version of Windows. Click OK and relaunch the setup on Windows 95, Windows NT 4.0, or later.  | Windows Installer is compatible with NT 4.0 and later, and Windows 9x and later. Check your version of Windows and upgrade if necessary.  |
| 1151         | Error writing to the temporary location  | To write to the temporary location, the environment variable TEMP must be set. Verify that the Temp folder exists and has enough disk space to accommodate the setup. If there are files in the Temp folder, delete them and rerun Setup.exe. |
| 1152         | Error extracting <file name> to the temporary location   | Check to see that you are able to write to the Temp folder (see errors above). If the Temp folder is valid, there may be corrupted files in the setup. Check the files to ensure none are corrupted and rerun Setup.exe.                      |
| 1153         | Error reading setup initialization file  | The Setup.ini file must be located in the same folder as Setup.exe. If not, move Setup.ini to that location.  |
| 1154         | Installer not found in <path>  | Windows Installer may not have been properly installed, or you may have an older version. Reinstall if necessary.   |

|      |  |  |
|------|--|--|
| 1155 | File <file name> not found   | Make sure the .msi file exists. If so, make sure it is located in the same folder as Setup.exe. You may not see the .msi file if you chose to compress it into Setup.exe.  |
| 1156 | Internal error in Windows Installer  | Windows Installer was unsuccessfully installed. Run the InstMsiW.exe file (for Windows NT and 2000) or InstMsiA.exe (for Windows 9x) to reinstall.   |
| 1157 | Failed to launch Msiexec.exe.  | Make sure you distribute the correct version of Windows Installer for the target platform.<br><br>Check the syntax on your Msiexec.exe command-line arguments.   |
| 1158 | Error populating strings.  | Verify that all strings in Setup.ini and any language-specific INI files in the Disk1 folder (such as 0x0409.ini) are valid.   |
| 1201 | Setup needs <amount> KB free space in <folder>. Please free up some space and try again.   | There is insufficient disk space in your target location. Please make sure there is at least 10 MB of free space in the drive where the setup is set to install.   |
| 1202 | You do not have sufficient privileges to complete this installation for all users of the machine. Log on as an administrator and then retry this installation.   | In Windows NT 4.0 and 2000, you must have administrative rights to complete this installation.   |
| 1203 | Invalid command-line parameters.   | Double-check the command-line statement used to launch Setup.exe.  |
| 1207 | Windows Installer <version> not found. This is an older version of Windows Installer. Click OK to continue.  | In Windows 2000 and later, Windows Installer is installed by default. If the end user's version of Windows Installer is an earlier version, this warning is displayed. It should not prevent the setup from running correctly.<br><br>To suppress this warning, select the current release's icon in the <b>Releases</b> view, and change the <b>Suppress Launcher Warning</b> setting to "Yes." |
| 1208 | ANSI code page for <language> is not installed on the system and therefore setup cannot run in the selected language. Run the setup and select another language. | Run the setup and select another language.   |
| 1603 | General Windows Installer engine error. Increase DiskSpace requirement in Setup.ini and try again.   | Reinstall Windows Installer by running InstMsiW.exe file (for Windows NT and 2000) or InstMsiA.exe (for Windows 9x) to reinstall.  |
| 1611 | Unable to extract the file <filename>.   | This error occurs when a file compressed inside Setup.exe cannot be extracted. Verify that there is sufficient disk space available in the Temp folder (or, if not, in the Windows or WinNT folder), and that Setup can write to those folders.  |

|      |   |   |
|------|---|---|
| 1614 | An error occurred while downloading the file <filename>.                                    | <p>If the URL is incorrect, click <b>Cancel</b> and enter the correct URL.</p> <p>If the URL is correct, verify that an active Internet connection is available.</p>  |
| 1621 | Failed to verify signature of file <filename>.  | <p>The file was downloaded, but the signature could not be verified. The file might be corrupted, it might have been signed by a different company than originally signed it, or it might not be signed.</p> <p>Verify that the file Wintrust.dll exists on the target system.</p>  |
| 1627 | Unable to save file: <filename>.  | Ensure that the specified file does not already exist, and that the target system has sufficient hard drive space.  |
| 1628 | Failed to complete script based install.  |   |
| 1629 | Invalid command line.   | Double-check the command-line statement used to launch Setup.exe.   |
| 1670 | Unable to load module [1], Error Code: [2]  | <p>[1] is the full path to the .dll file that the installation is attempting to load (ISSetup.dll in all cases).</p> <p>[2] is the Windows error returned from LoadLibrary().</p> <p>This error occurs if ISSetup.dll is not in the Disk1 folder. It also may occur if ISSetup.dll is compressed in Setup.exe if a compressed media is being built.</p> <p>To resolve this error, try rebuilding the release.</p> |
| 1700 | An error occurred initializing the InstallScript engine.                                    | This error indicates that a problem occurred when the engine was being loaded.  |
| 1701 | Unable to extract InstallScript engine support files to temp location.                      | <p>This error occurs if one or more files could not be extracted from the ISSetup.dll file to a temporary directory.</p> <p>To troubleshoot this error, create a Windows Installer log file to obtain more information. The log file has the corresponding Windows error number and other diagnostic information that may help troubleshoot this issue.</p>   |
| 1919 | Error configuring ODBC data source. Verify that the file exists and that you can access it. | Machines running Windows 95 do not have the ODBC core. You need to install MDAC before installing any package with an ODBC driver.  |

## 5.2 Checking for Errors Using the Setup.log File

This chapter describes the InstallShield 2010 SP1 project file in more detail for customizing the driver installer. InstallShield 2010 SP1 is necessary to customize a driver installer. All of the following sections are written based on Windows XP. Note that the comments and conditions for other OS platforms may be different from these descriptions.

| Result Code | Description  |
|-------------|--|
| 0           | Success.   |
| -1          | General error.   |
| -2          | Invalid mode.  |
| -3          | Required data not found in the Setup.iss file.                 |
| -4          | Not enough memory available.                                   |
| -5          | File does not exist.   |
| -6          | Cannot write to the response file.                             |
| -7          | Unable to write to the log file.                               |
| -8          | Invalid path to the InstallShield Silent response (.iss) file. |
| -9          | Not a valid list type (string or number).                      |
| -10         | Data type is invalid.  |
| -11         | Unknown error during setup.                                    |
| -12         | Dialog boxes are out of order.                                 |
| -51         | Cannot create the specified folder.                            |
| -52         | Cannot access the specified file or folder.                    |
| -53         | Invalid option selected.                                       |

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**Revision Record**

| Rev. | Date                | Description |  |
|------|---------------------|-------------|--|
|      |                     | Page        | Summary  |
| 0.01 | July 13th, 2010     | -           | First edition issued.(ISG-NC1-200020)  |
| 0.02 | August 11th, 2010   | -           | Second edition issued. (ISG-NC1-200030)  |
|      |                     | -           | Modified <ul style="list-style-type: none"> <li>- Section 1.1(Added the System Requirement)</li> <li>- Section 1.2.3(Added the Command line option)</li> <li>- Section 2.5(Added the explanation about the pop-up message )</li> </ul>   |
| 0.03 | October 7th, 2010   | -           | Third edition issued. (ISG-NC1-200040)   |
|      |                     | -           | Modified <ul style="list-style-type: none"> <li>- Section 1.2.3(Added the Command line option)</li> <li>- Section 3.1.1(Added the explanation about Check-Box to disable the Dynamic U1/U2 state control function)</li> </ul>  |
| 0.04 | February 17th, 2011 | -           | Added <ul style="list-style-type: none"> <li>- Section 1.4(Selective Suspend function)</li> <li>- Section 2.8(Option: Disable the Selective Suspend function)</li> <li>- Section 2.9(Hide the pop-up message)</li> </ul>   |
|      |                     | -           | Added <ul style="list-style-type: none"> <li>- Section 1.5( Dynamic U1/U2 state control function)</li> <li>- Section 2.10(Option: Disable the Dynamic U1/U2 state control function)</li> <li>- Section 2.11(Option: Disable the check-box on USB 3.0 Host Controller Utility)</li> </ul> |
| 0.04 | February 17th, 2011 | -           | Forth edition issued. (ISG-NC1-200061)   |
|      |                     | -           | Added <ul style="list-style-type: none"> <li>- Section 1.6 (Over Current function)</li> <li>- Section 5 (Appendix)</li> </ul>  |

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