

Intel® USB 3.0 Host Controller Adaptation Driver

User Guide and Release Note

July 2016

Revision 1.2

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Revision History

Document Number	Revision Number	Description	Revision Date
N/A	0.8	Release	February 2015
N/A	0.81	Engineering Release	April 2015
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N/A	1.0	PV Release	June 2015
N/A	1.1	MR1 Release	July 2015
N/A	1.2	MR2 Release	July 2016

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1 Introduction

1.1 Purpose and Scope of Document

This document provides installation instructions and general usage of the driver as well as release information, such as release kit summary, important notes, resolved issues and known issues. This document is intended to help OEM and ODM customers setup their platform as they prepare for validation and debug.

Intel® USB 3.0 Host Controller Adaptation Driver is installed in the Microsoft* inbox xHCI controller driver stack as a low level Filter. The Intel® USB 3.0 Host Controller Adaptation Driver provides specific workaround for D0/D3 power state transition issues in the xHCI controller Hardware. The Driver supports the following operating system and platform:

Operating System:

- Windows* 8.1 (64 Bit) Operating System
- Windows* Server 2012 R2 (64 Bit) Operating System
- Windows* Server 2012 (64 Bit) Operating System

Hardware Requirement:

- 6th Generation Intel® Core™ Processors
- Intel® 100 Series Chipset Family
- Intel® Pentium® Processor or Intel® Celeron® Processor N- & J- Series

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2 Release Kit Summary

2.1 Release Kit Details

Kit Name: Intel(R) USB 3.0 Host Controller Adaptation Driver

Version: 2.0.0.5

2.2 Kit Contents

The contents of this release kit include:

- Driver\x64\Win8.1:
 - Driver INF files
 - Driver CAT files
 - Driver SYS files
- SetupAdaptationDriver.exe
- Readme.txt
- Intel Software License Agreement
- Intel(R) USB 3.0 Host Controller Adaptation Driver - Bring Up Guide and release note.pdf
- WixLicense.txt



3 Driver Installation

Note: A supported Operating System must be installed prior to the installation of the Intel® USB 3.0 Host Controller Adaptation Driver.

There is one method to install the Intel® USB 3.0 Host Controller Adaptation Driver for this release:

1. Driver Installation via Installer
2. Silent Driver Installation via Installer
3. Manual driver installation via INF

3.1 Driver Installation via Installer

Follow the steps listed below for driver installation via installer:

1. Copy and unzip the Intel® USB 3.0 Host Controller Adaptation Driver onto the platform under test.

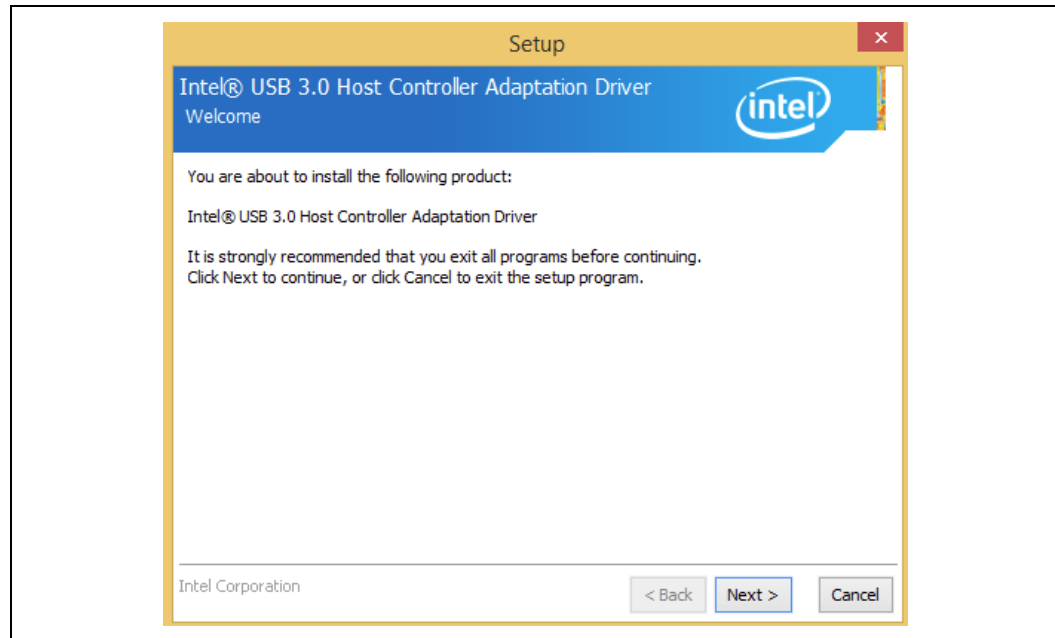
Note: **WARNING** – Do not run this driver's installer (SetupAdaptationDriver.exe) from a USB storage device (ie. external USB hard drive or USB thumb drive). For proper installation, please copy driver files to a local hard drive folder and run from there.

2. Locate the "SetupAdaptationDriver.exe" file.
3. Right click on the executable and select 'Run as administrator' option from the menu to start the installer and then click on 'Yes' button in User Account Control pop-up window.



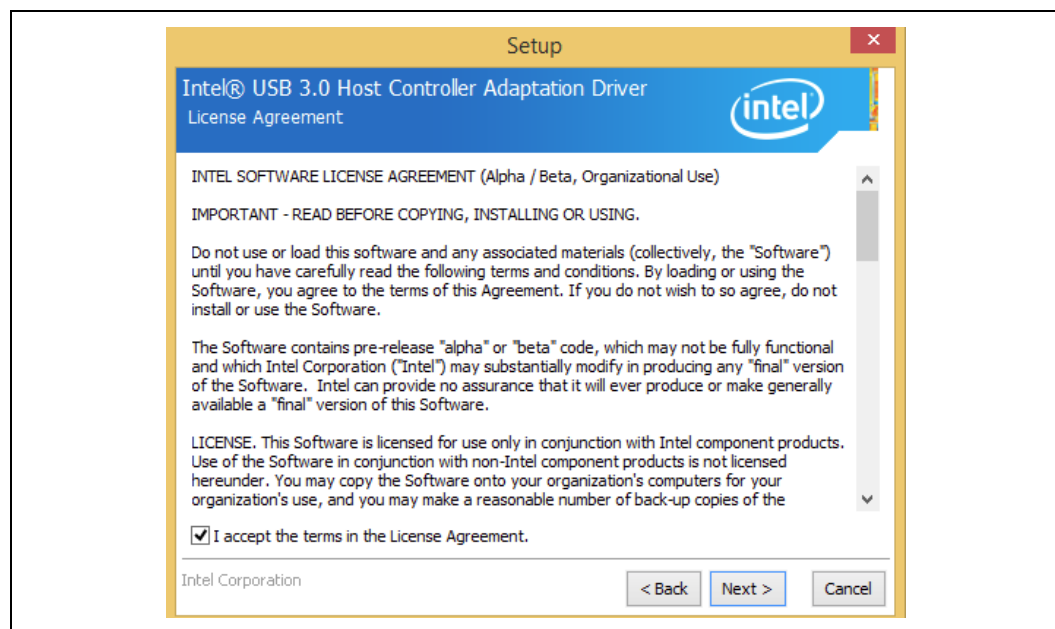
4. You should see welcome screen with component details as shown in Figure 1. Click 'Next >' button to continue the installation.

Figure 1. Welcome Screen



5. Next, you should see license agreement screen as shown in Figure 2. Please review the license agreement and if you accept the license terms then click on 'Yes' button to continue the installation.

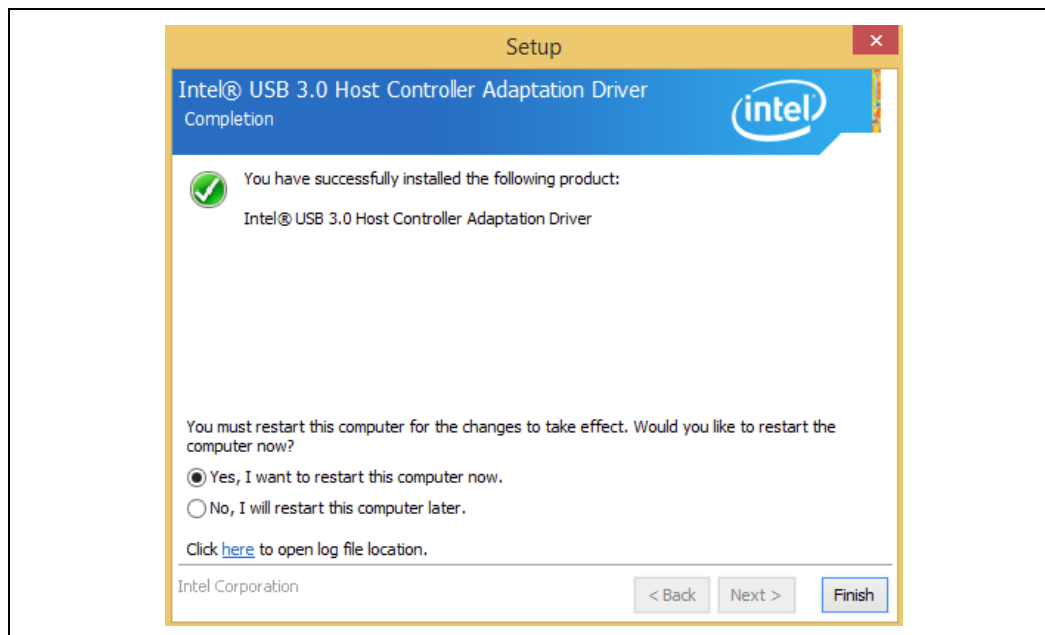
Figure 2. License Agreement





6. Then, installer will perform various installation operations and show progress in Setup Progress screen.
7. After successful installation, you should see setup completion screen as shown in Figure 3. Click on 'Finish' button to restart the system

Figure 3. Setup Completion



8. After the system has booted, you can refer to section 3.4 to check the driver version.

3.2 Silent Driver Installation via Installer

Follow the steps listed below for silent driver installation via installer:

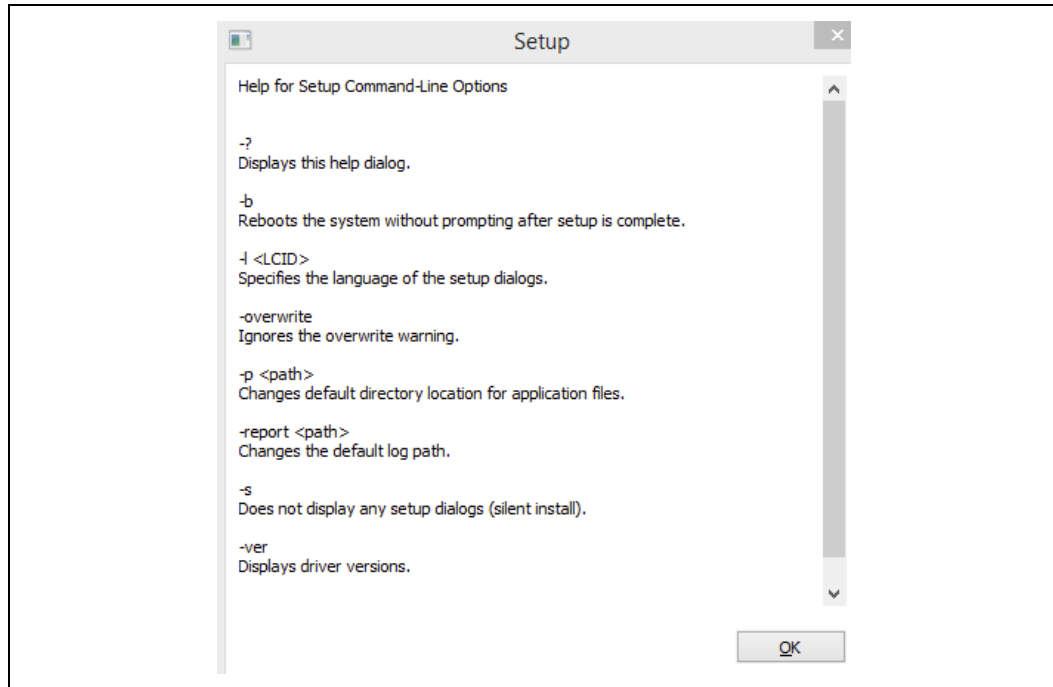
1. Copy and unzip the Intel® USB 3.0 Host Controller Adaptation Driver onto the platform under test.

Note: **WARNING** – Do not run this driver's installer (SetupAdaptationDriver.exe) from a USB storage device (ie. external USB hard drive or USB thumb drive). For proper installation, please copy driver files to a local hard drive folder and run from there.

2. Open a Command Prompt (cmd.exe) with administrator rights (ie. Run as administrator). Click on 'Yes' button in User Account Control pop-up window.
3. Change the directory to where you unzipped the driver in Step 1 and then change to the "SetupAdaptationDriver.exe" directory.

4. To see all available options for the Installer, run command "SetupAdaptationDriver.exe -?". You should see a window pop-up similar to Figure 4. For the "-g <LCID>" option which specifies the language of the setup dialogs, the LCID list is shown in below table. Click OK to continue.

Figure 4. Installer Help Information



Note: The "-report <path>" option allows users to change where the installation log file is saved. Otherwise, Intel driver installation log files are stored in the general location of 'C:\Intel\Logs'.



LCID	Language
0401	Arabic
0804	Chinese (Simplified)
0404	Chinese (Traditional)
0405	Czech
0406	Danish
0413	Dutch
0409	English (USA)
040B	Finnish
040C	French
0407	German
0408	Greek
040D	Hebrew
040E	Hungarian
0410	Italian

LCID	Language
0411	Japanese
0412	Korean
0414	Norwegian
0415	Polish
0416	Portuguese (Brazil)
0816	Portuguese (Standard)
0419	Russian
0C0A	Spanish
041B	Slovak
0424	Slovenian
041D	Swedish
041E	Thai
041F	Turkish

5. Run command "SetupAdaptationDriver.exe -b -s" to start the silent installation. This process should take about 1 min to complete. When silent installation is complete, the system will automatically reboot.
6. After the system has booted, you can refer to section 3.4 to check the driver version.

Other silent installation examples are:

- > SetupAdaptationDriver.exe -s -overwrite -report C:\Temp
- > SetupAdaptationDriver.exe -s -l 0404



For the installation, a full listing of return values can be found in the following table. The 'ResultCode' value can be found at the end of the installation log file.

Result Code	Description
0	Success
3010	Reboot required
1602	User exited
1641	Reboot initiated
1603	Install failure

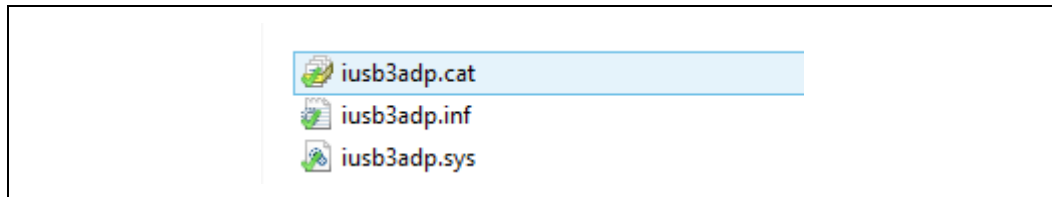
3.3 Manual Installation via INF File

Follow the steps listed below for driver installation via INF file:

1. Open the device manager – right click on the “Start” button, then select “Device Manager” option.
2. Find the 'Intel(R) USB 3.0 eXtensible Host Controller - 0100 (Microsoft)' controller under the “Universal Serial Bus controllers” group.
3. Right click on the 'Intel(R) USB 3.0 eXtensible Host Controller - 0100 (Microsoft)' and select “Update driver Software” option.
4. Select “Browse my computer for driver software” option.
5. Select “Let me pick from a list of devices on my computer” option
6. Click on the “Have Disk” button.
7. Click on the “Browse” button.
8. Navigate to the location of the folder for Intel® USB 3.0 Host Controller Adaptation Driver.
9. Select iusb3adp.inf file and click on the “Open” button.
10. Click on the “Ok” button.
11. Click on the “Next” button to install the driver.
12. After the installation of all the drivers, reboot the system.



Figure 5. Intel® USB 3.0 Host Controller Adaptation Driver - INF files – Windows 8.1

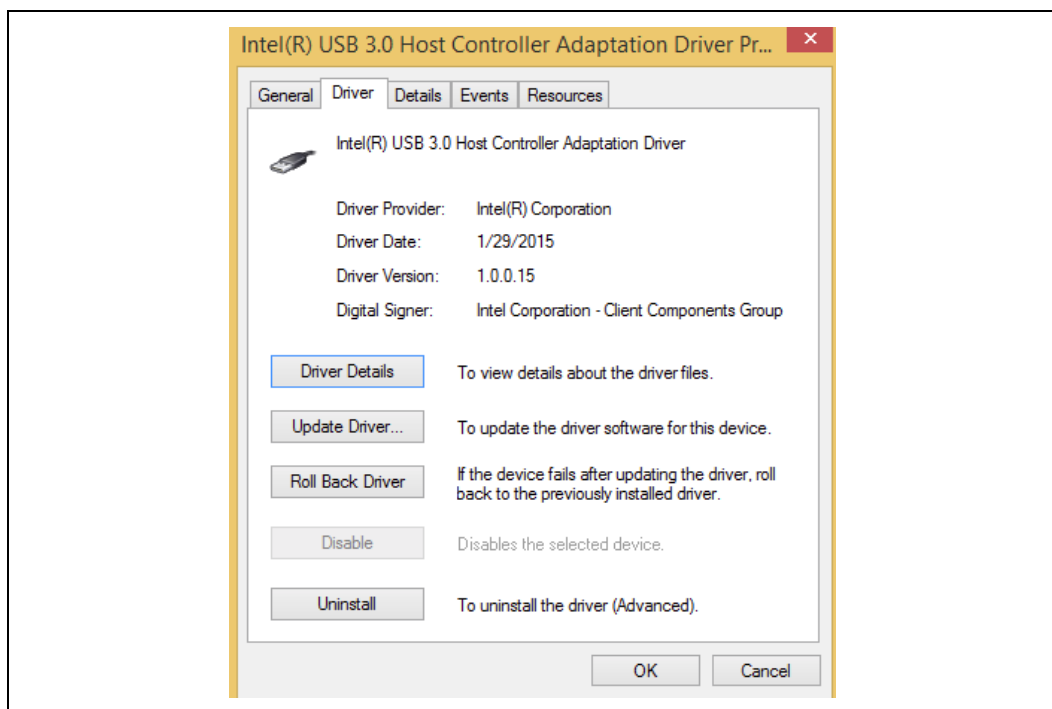


3.4 Checking the Driver Version

To check the Intel® USB 3.0 Host Controller Adaptation Driver version, follow the below instructions:

1. Open Device Manager.
2. Double click on the Intel® USB 3.0 Host Controller Adaptation Driver.
3. Select the “Driver” tab and the Driver Version will be listed.

Figure 6. Intel® USB 3.0 Host Controller Adaptation Driver Version





3.5 Uninstalling the Driver via Control Panel

Follow the steps listed below to uninstall the driver via the Control Panel:

1. Open the Control Panel window (Start -> Control Panel).
2. If the Control Panel window is shown in 'Category' view, then select "Uninstall a program" as shown in Figure 7. Otherwise if the Control Panel window is shown in 'icon' view, then select "Programs and Features".

Figure 7. Control Panel – Uninstall a program



3. On the next window, select the "Intel® USB 3.0 eXtensible Host Controller Driver" (see Figure 8) from the list of programs. Then click the "Uninstall" button.

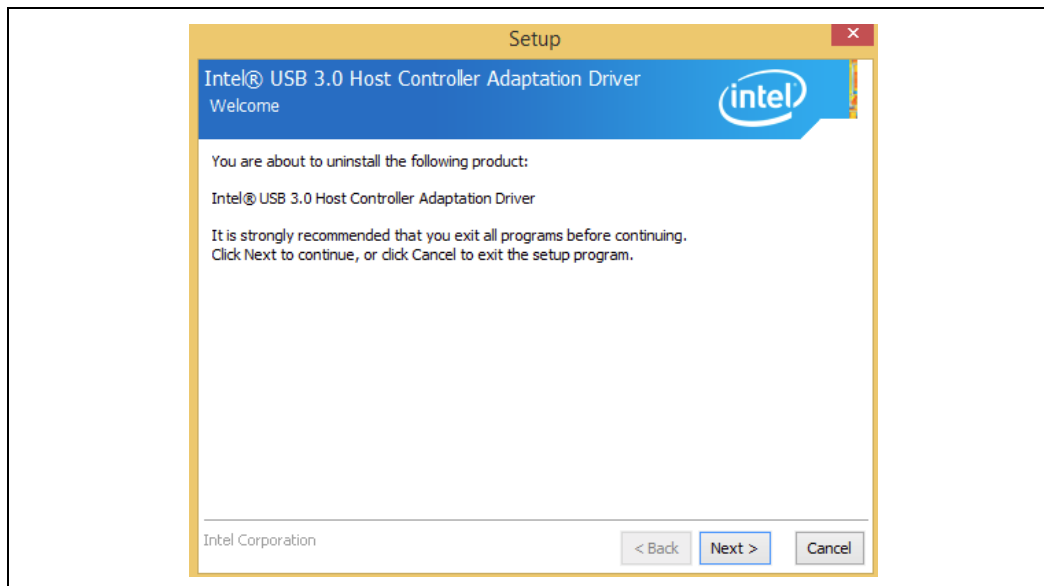
Figure 8. Control Panel – Programs List

Organize ▾ Uninstall			
Name	Publisher	Installed On	Size
 Intel® USB 3.0 Host Controller Adaptation Driver	Intel Corporation	1/16/2015	



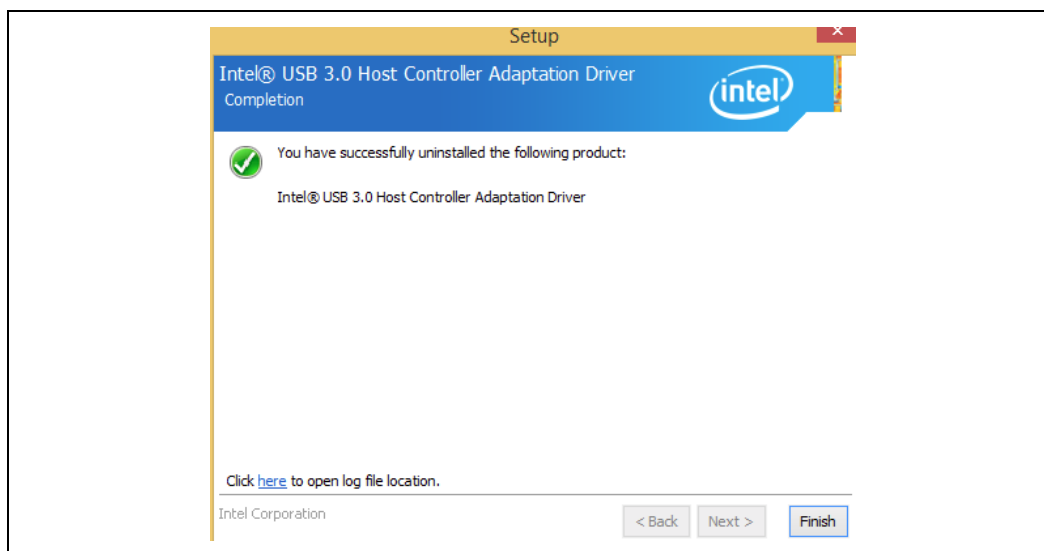
4. You should see the Welcome to Uninstallation Program pop-up window with component details as shown in Figure 9. Click 'Next >' button to continue.

Figure 9. Welcome to the Uninstallation Program



5. Next, installer will perform various operations and show progress in Uninstallation Progress screen.
6. After successful uninstall, you should see setup completion screen as shown in Figure 10. Click on 'Finish' button to restart the system.

Figure 10. Uninstall Setup Completion





4 Closed Issues

Issue #	Description	Resolution
4773568	BSOD 0xC4 may occurs if driver verifier is enabled in the OS.	Resolved in Release Rev: 2.0.0.5 (MR2)
N/A	Added support for Windows Server 2012 OS and Windows Server 2012R2 OS	Resolved in Release Rev: 1.0.1.45 (MR1)
1404147200	USB3 Host Controller fails to detect modem connect after core dump.	Resolved in Release Rev: 1.0.1.45 (MR1)
4772827	BSOD occurs during WHCK test	Resolved in Release Rev: 1.0.1.45 (MR1)
4772924	BSOD occurs after resume from S4	Resolved in Release Rev: 1.0.1.45 (MR1)
4772327	KMOD_EXCEPTION_NOT_HANDLED(1e) may occurs after resuming from S4	Resolved in Release Rev: 1.0.0.42 (PC)
N/A	Removed support for Windows 10 OS. Note: Filter driver w/a are included in the latest Windows 10 OS build xHCI inbox driver.	Resolved in Release Rev: 1.0.0.42 (PC)
4770592	BSOD 0x9F occurs randomly during S3 cycling	Resolved in Release Rev: 1.0.0.37 (Beta2)
4771125	Updated licenses agreement	Resolved in Release Rev: 1.0.0.37 (Beta2)
4770512	BSOD 0x50 may occurs during S3 cycles.	Resolved in Release Rev: 1.0.0.27 (Eng)
4637484	Fixed "Fresh Install" support option in the installer	Resolved in Release Rev: 1.0.0.27 (Eng) installer 1.0.3
4769361 (4769979)	Fixed issue where the system is in Sx, the USB 3.0 connection status bit may get overwritten during a physical device detach/reattach to the system.	Resolved in Release Rev: 1.0.0.21
4768878	Fixed issue where the xHCI controller premature wake from D3 may inadvertently wake the system from Sx.	Resolved in Release Rev: 1.0.0.15

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5 Known Issues

Issue #	Description
N/A	

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