Products All Microsoft

Contribute to the Windows forum! Click here to learn more Q

Windows 10 Forum Top Contributors: Ramesh Srinivasan - neilpzz - Volume Z - franco d'esaro - AW

Search within Windows

Ask a new question >

 \times

X

X

RA <u>rajtendulkar</u>

Created on November 12, 2019

List of PCI devices

Hello

In windows KMDF, I would like to get a list of PCI devices and extract slot information. How can I achieve this?

Should I be using IRQ_MN_QUERY_INTERFACE API?

https://docs.microsoft.com/en-us/windows-hardware/drivers/kernel/irp-mn-query-interface

Or is there any other way to get the PCI device information?

Kind regards, Pranav

 \triangle This thread is locked. You can vote as helpful, but you cannot reply or subscribe to this thread.

I have the same question (16) Report abuse

Question Info

Last updated April 14, 2024

Views 31,989

Applies to:

Windows / Windows 10 / Devices and drivers

You're invited to try Microsoft 365 for free

Unlock now

Replies (4)

Lester BernardReyes

Independent Advisor Replied on November 12, 2019

Report abuse

Hi

My name is Lester and hopefully, this will help answer your question, there are many ways for us to check the PCI slots available on the PC, you may refer to the steps below:

Method 1.

Press Windows key + R then type in regedit then hit OK

Locate the following key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\PCI\

By that you can check PCI information.

Method 2.

Press Windows key + R then type in dxdiag then hit OK

On the bottom click Save all information

You may save it to your desktop or anywhere, once done open the saved information to notepad.

Look for System Devices and you will see the list of PCI, on notepad you may also search for PCI by pressing CTRL+ F then type in PCI to check.

Let me know how does it goes, and we have sets of troubleshooting steps here.

Lester

Independent Advisor

7 people found this reply helpful Was this reply helpful? Yes No

rajtendulkar

Replied on November 12, 2019

Report abuse

In reply to Lester BernardReyes's post on November 12, 2019

Dear Lester,

Thanks for your reply.

My question was, how to get list of PCIe devices from within KMDF.

For example Linux has an API to get a pci device pointer to a specific vendor ID using pci_get_device()

https://elixir.bootlin.com/linux/latest/source/drivers/pci/search.c#L328

Does Windows have an equivalent API?

Kind regards,

Pranav

Was this reply helpful? Yes No

<u>Lester BernardReyes</u>

Independent Advisor Replied on November 12, 2019

Report abuse

Oh, got it thanks, let me check with other Advisor so that they can check as well.

```
Was this reply helpful? Yes No
```

<u>rajtendulkar</u>

Replied on November 12, 2019

Report abuse

In reply to Lester BernardReyes's post on November 12, 2019

I wrote the code below, but it fails to get the PDO pointer to the device. Hence I cannot get the device ID of the enumerated devices.

```
void check_dev_id(void)
PFILE_OBJECT pFileObject;
PDEVICE_OBJECT pDeviceObject;
NTSTATUS status;
PZZWSTR symbolicLinkList;
PWSTR SymbolicLinkListPtr;
const GUID guid = {0x5b45201d, 0xf2f2, 0x4f3b, 0x85, 0xbb, 0x30,
          0x1f, 0x95, 0x35, 0x99};
  0xff,
status = IoGetDeviceInterfaces(&guid, NULL, 0, &symbolicLinkList);
if (!NT_SUCCESS(status))
return;
for (SymbolicLinkListPtr = symbolicLinkList;
  SymbolicLinkListPtr[0] != 0 && SymbolicLinkListPtr[1] != 0;
  SymbolicLinkListPtr += wcslen(SymbolicLinkListPtr) + 1) {
UNICODE_STRING SymbolicLink;
WCHAR deviceID[512];
ULONG dataLen;
SymbolicLink.Buffer = SymbolicLinkListPtr;
SymbolicLink.Length = SymbolicLink.MaximumLength =
(USHORT)wcslen(SymbolicLinkListPtr);
status = IoGetDeviceObjectPointer(&SymbolicLink, FILE_READ_DATA, &pFileObject,
&pDeviceObject);
if (!NT_SUCCESS(status)) {
// Fails here to get the PDO
continue;
}
// Now we have a DeviceObject. Get device ID
status = IoGetDeviceProperty(pDeviceObject, DevicePropertyHardwareID,
sizeof(deviceID), deviceID, &dataLen);
if (!NT_SUCCESS(status))
continue;
// Otherwise Device ID found
ExFreePool(symbolicLinkList);
}
```

Education **Business Developer & IT** Company What's new Microsoft Store Surface Pro Account profile Microsoft in education Microsoft Cloud Azure Careers **Download Center** Developer Center Surface Laptop Devices for education Microsoft Security About Microsoft Dynamics 365 Company news Surface Laptop Studio 2 Microsoft Store support Microsoft Teams for Documentation

No

3 people found this reply helpful Was this reply helpful? Yes

Surface Laptop Go 3	Returns	Education	Microsoft 365	Microsoft Learn	Privacy at Microsoft
Microsoft Copilot	Order tracking	Microsoft 365 Education	Microsoft Power Platform	Microsoft Tech Community	Investors
Copilot in Windows	Certified Refurbished	How to buy for your school	Microsoft Teams	Azure Marketplace	Diversity and inclusion
Explore Microsoft products	Microsoft Store Promise	Educator training and development	Copilot for Microsoft 365	AppSource	Accessibility
Windows 11 apps	Flexible Payments	Deals for students and parents	Small Business	Visual Studio	Sustainability

Azure for students

English (United States)

Your Privacy Choices Consumer Health Privacy

Sitemap Contact Microsoft Privacy Terms of Use Trademarks Safety & eco Recycling About our ads © Microsoft 2024