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United States

Serial Device May Be Detected as a Serial Mouse in Windows 2000

View products that this article applies to.

This article was previously published under Q283063

IMPORTANT: This article contains information about modifying the registry. Before you modify the registry, make sure to back it up and make sure that you understand how to restore the registry if a problem occurs. For information about how to back up, restore, and edit the registry, click the following article number to view the article in the Microsoft Knowledge Base:

256986 Description of the Microsoft Windows Registry

SYMPTOMS

When you are using a Windows 2000-based computer, a serial device may be detected as a serial mouse.

CAUSE

This problem can occur because most of the devices that are detected as serial mice that are some other type of device constantly send data to the serial port which causes the detection code to incorrectly identify the device as a serial mouse.

RESOLUTION

To resolve this problem, obtain the latest service pack for Windows 2000 and then update the registry as instructed below. For additional information about the latest service pack for Windows 2000, click the article number below to view the article in the Microsoft Knowledge Base:

260910 How to Obtain the Latest Windows 2000 Service Pack

The English-language version of this fix should have the following file attributes or later:

```
Date        Time     Version       Size     File name
----------------------------------------------------
1/17/2001   03:48p   5.0.2195.3156  13,936   Serenum.sys
```

WARNING: If you use Registry Editor incorrectly, you may cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that you can solve problems that result from using Registry Editor incorrectly. Use Registry Editor at your own risk.

After you apply the hotfix or the service pack, follow these steps:

1. Start Registry Editor (Regedt32.exe). To do this, click **Start**, click **Run**, type **regedt32** in the **Open** box, and then press ENTER.
2. For instructions on how to identify the *Enumerator*, *DeviceID*, and *InstanceID* for your COM Port refer to the More Information section below:

   HKEY_LOCAL_MACHINE\System\CurrentControlSet\Enum*Enumerator**DeviceID**InstanceID*\Device Parameters

Note that there is one *InstanceID* for each port.

3. On the **Edit** menu, click **Add Value**, and then add the following registry value:

> Value Name: SkipEnumerations
> Data Type: REG_DWORD
> Radix: Hexidecimal
> Value: 0 through FFFFFFFE

Note that a value of zero (0) disables the feature and device detection can resume. Each time that Plug and Play does an enumeration, it counts down one, and when it counts down to zero, it re-enumerates the hardware and then starts counting down again from the registry value. When you reboot the computer, Plug and Play starts the count again at the value that you typed.

4. Quit Registry Editor.

WORKAROUND

To work around this problem, allow the device to be detected incorrectly, use Device Manager to disable the device that is not the port to which the device is attached, and then reboot your computer. When you do this, the port works correctly and the incorrectly detected device is disabled.

STATUS

Microsoft has confirmed that this is a problem in the Microsoft products that are listed at the beginning of this article. This problem was first corrected in Windows 2000 Service Pack 3. After you install Windows 2000 Service Pack 3, you must edit the registry as described in the "Resolution" section of this article.

Note that Microsoft Windows XP also includes the fixed Serenum.sys file; you must edit the registry as described in the "Resolution" section for Windows XP also.

MORE INFORMATION

For additional information about how to obtain a hotfix for Windows 2000 Datacenter Server, click the article number below to view the article in the Microsoft Knowledge Base:

265173 The Datacenter Program and Windows 2000 Datacenter Server Product

For additional information about how to install multiple hotfixes with only one reboot, click the article number below to view the article in the Microsoft Knowledge Base:

296861 Use QChain.exe to Install Multiple Hotfixes with One Reboot

Applications may fail to initialize the GPS device once the SkipEnumerations change has been added to the registry even though the GPS is no longer being detected as a Serial mouse. This can be related to Ghosted serial devices still loading. For additional information about how to locate and uninstall Ghosted devices from mice and other pointing devices, click the article number below to view the article in the Microsoft Knowledge Base:

241257 Device Manager Does Not Display Devices Not Currently Present

Motherboard based COM Ports

First, you need to determine which HAL is being used before you can make the registry change. To determine which HAL is running on the system open Device Manager and expand Computer.

If the system has an ACPI HAL you can add the SkipEnumerations Reg_DWORD Value shown in Step 3 above to the serial port of choice located under

> **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\ACPI\PNP0501*Port#*\Device Parameters**

If the system has a Standard (Non-ACPI HAL) you can add the SkipEnumerations Reg_DWORD Value shown in Step 3 above to the serial port of choice located under

> **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum\Root*PNP0501*Port#*\Device Parameters**

NOTE: *Port#* = InstanceID

COM Ports on Serial Port Add-On Cards

Discovering the correct location in the registry for the port is more involved. Below is a method that will help to you locate and identify each component.

1. Open Device Manager and view the Com Port's Device Description, or "Friendly Name".
2. Locate the Setupapi.log in C:\Winnt and search the setupapi.log for the Device Description, exactly as it appears in Device Manger, of the Device hanging off the Port in question.
3. Once the device is located in the setupapi.log slowly scroll down until you locate the entry "Doing copy-only install of *Enumerator\DeviceID\InstanceID*." For Example: Doing copy-only install of MF\PCI#VEN_131F&DEV_2052&SUBSYS_2052131F&REV_00\3&1E67C166&0&50#CHILD0003

   Enumerator = MF

   DeviceID = PCI#VEN_131F&DEV_2052&SUBSYS_2052131F&REV_0
   InstanceID = 3&1E67C166&0&50#CHILD0003

   NOTE: The SkipEnumerations Reg_DWORD Value is to be added under the \Device Parameter's Key for each particular InstanceID.

4. Open regedt32.exe and expand HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Enum5. Expand the *Enumerator*, locate and expand the *DeviceID* then expand the *InstanceID* below that. This is the Device ID for the specific port of the Serial Card where the Value is to be added.

   When you attach a device to a serial port on a computer that is running Windows 2000 and reboot the computer, the operating system enumerates devices and looks for new or removed hardware when the computer starts. During this detection phase, the computer detects the serial ports and tries to determine what type of device is attached. Typically, the software detects a serial mouse as attached when it is some other type of hardware device, such as a Global Positioning System (GPS) devise.

5. Expand the Enumerator, locate and expand the DeviceID then expand the InstanceID below that. This is the Device ID for the specific port of the Serial Card where the Value is to be added.

For additional information about how to install Windows 2000 and Windows 2000 hotfixes at the same time, click the article number below to view the article in the Microsoft Knowledge Base:

[249149](#) Installing Microsoft Windows 2000 and Windows 2000 Hotfixes

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The information in this article applies to:

- Microsoft Windows 2000 Server SP1
- Microsoft Windows 2000 Server SP2
- Microsoft Windows 2000 Advanced Server SP1
- Microsoft Windows 2000 Advanced Server SP2
- Microsoft Windows 2000 Professional SP1
- Microsoft Windows 2000 Professional SP2

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