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pnputil.exe

- >> File Path: C:\Windows\system32\pnputil.exe
- >> Description: Microsoft PnP Utility - Tool to add, delete, export, and enumerate driver packages.

Hashes

| Type | Hash |
|--------|----------------------------------------------------------------------------------------------------------------------------------|
| MD5 | 60EDC5E6BDBAEE441F2E3AEACD0340D2 |
| SHA1 | B00E025A7B9B94EA59358E0C543522461CCFCC85 |
| SHA256 | 25EFA393011172FBDEDB60B362C82DD5B026B9EDFACCAC77AD4C60DB1E1E79C6 |
| SHA384 | 7ED7121DBBC16D5E0852A2E14031437CCCC6193D27DD8FB36ABAC47763E2DCA010D27F6EA4A2A2DB50C2C9F953E14F90 |
| SHA512 | 65ACBDB36FF96D62CE8F1D0073981D442758850A10E3BBF0EB024C25C5B1E8E4943C6CB60F4F200D1C438A0BC79634B1DE9B39DCA07F1C4FD709936C39828F71 |
| SSDEEP | 3072:JbAQqwEJjHN2N7191mTiQxXoUXsvfK/pgS/FHHrAuSGHZpzrqAXaG/3yy:Jbfqw4jHg7z1mTHXoUjiSVHsiKA9 |

Runtime Data

Usage (stdout):

```
Microsoft PnP Utility

PNPUTIL [/add-driver <...> | /delete-driver <...> |
        /export-driver <...> | /enum-drivers |
        /enum-devices [<...>] | /enum-interfaces [<...>] |
        /disable-device <...> | /enable-device <...> |
        /restart-device <...> | /remove-device <...> |
        /scan-devices [<...>] | /?]
```

Commands:

```
/add-driver <filename.inf | *.inf> [/subdirs] [/install] [/reboot]
```

Add driver package(s) into the driver store.

```
/subdirs - traverse sub directories for driver packages.
/install - install/update drivers on any matching devices.
/reboot - reboot system if needed to complete the operation.
```

Examples:

```
Add driver package:
pnputil /add-driver x:\driver.inf

Add multiple driver packages:
pnputil /add-driver c:\oem\*.inf

Add and install driver package:
pnputil /add-driver device.inf /install
```

```
/delete-driver <oem#.inf> [/uninstall] [/force] [/reboot]
```

Delete driver package from the driver store.

```
/uninstall - uninstall driver package from any devices using it.
/force - delete driver package even when it is in use by devices.
/reboot - reboot system if needed to complete the operation.
```

Examples:

Delete driver **package**:

pnputil /delete-driver oem0.inf

Force delete driver **package**:

pnputil /delete-driver oem1.inf /force

/export-driver <oem#.inf | *> <target directory>

Export driver package(s) from the driver store into a target directory.

Examples:

Export driver **package**:

pnputil /export-driver oem6.inf .

Export all driver **packages**:

pnputil /export-driver * c:\backup

/enum-drivers

Enumerate all 3rd party driver packages in the driver store.

Examples:

Enumerate all OEM driver **packages**:

pnputil /enum-drivers

/disable-device <instance ID> [/reboot]

Disable devices on the system.

/reboot - reboot system if needed to complete the operation.

Examples:

Disable **device**:

pnputil /disable-device "USB\VID_045E&PID_00DB\6&870CE29&0&1"

/enable-device <instance ID> [/reboot]

Enable devices on the system.

/reboot - reboot system if needed to complete the operation.

Examples:

Enable **device**:

pnputil /enable-device "USB\VID_045E&PID_00DB\6&870CE29&0&1"

/restart-device <instance ID> [/reboot]

Restart devices on the system.

/reboot - reboot system if needed to complete the operation.

Examples:

Restart **device**:

pnputil /restart-device "USB\VID_045E&PID_00DB\6&870CE29&0&1"

/remove-device <instance ID> [/subtree] [/reboot]

Attempt to remove a device from the system.

/subtree - remove entire device subtree, including any child devices.

/reboot - reboot system if needed to complete the operation.

Examples:

Remove **device**:

pnputil /remove-device "USB\VID_045E&PID_00DB\6&870CE29&0&1"

/scan-devices [/instanceid <instance ID>] [/async]

Scan the system for any device hardware changes.

/instanceid <instance ID> - scan device subtree for changes.

/async - scan for changes asynchronously.

Examples:

Scan **devices**:

```
pnputil /scan-devices
```

```
/enum-devices [/connected | /disconnected] [/instanceid <instance ID>]
               [/class <name | GUID>] [/problem [<code>]] [/ids] [/relations]
               [/drivers]
```

Enumerate all devices on the system.

/connected | /disconnected - filter by connected devices or
 filter by disconnected devices.

/instanceid <instance ID> - filter by device instance ID.

/class <name | GUID> - filter by device class name or GUID.

/problem [<code>] - filter by devices with problems or
 filter by specific problem code.

/ids - display hardware IDs and compatible IDs.

/relations - display parent and child device relations.

/drivers - display matching and installed drivers.

Examples:

Enumerate only connected devices on the **system**:

```
pnputil /enum-devices /connected
```

Enumerate device with specific instance ID:

```
pnputil /enum-devices /instanceid "ACPI\PNP0A08\1"
```

Enumerate all devices with specific **class**:

```
pnputil /enum-devices /class Display
pnputil /enum-devices /class {4d36e97d-e325-11ce-bfc1-08002be10318}
```

Enumerate all devices with specific problem **code**:

```
pnputil /enum-devices /problem 28
pnputil /enum-devices /problem 0xA
```

Enumerate all devices with problems and display hardware/compatible IDs:

```
pnputil /enum-devices /problem /ids
```

```
/enum-interfaces [/enabled | /disabled] [/class <GUID>]
```

Enumerate all device interfaces on the system.

/enabled | /disabled - filter by enabled interfaces or
 filter by disabled interfaces.

/class <GUID> - filter by interface class GUID.

Examples:

Enumerate only enabled interfaces on the **system**:

```
pnputil /enum-interfaces /enabled
```

Enumerate all interfaces with specific interface class GUID:

```
pnputil /enum-interfaces /class {884b96c3-56ef-11d1-bc8c-00a0c91405dd}
```

```
/?
```

Show usage screen.

Loaded Modules:

| Path |
|------------------------------------|
| C:\Windows\System32\KERNEL32.DLL |
| C:\Windows\System32\KERNELBASE.dll |
| C:\Windows\SYSTEM32\ntdll.dll |
| C:\Windows\system32\pnputil.exe |

Signature

- >> Status: Signature verified.
- >> Serial: 330000026551AE1BBD005CBFBD000000000265
- >> Thumbprint: E168609353F30FF2373157B4EB8CD519D07A2BFF
- >> Issuer: CN=Microsoft Windows Production PCA 2011, O=Microsoft Corporation, L=Redmond, S=Washington, C=US
- >> Subject: CN=Microsoft Windows, O=Microsoft Corporation, L=Redmond, S=Washington, C=US

File Metadata

- >> Original Filename: pnputil.exe.mui
- >> Product Name: Microsoft Windows Operating System
- >> Company Name: Microsoft Corporation
- >> File Version: 10.0.19041.1 (WinBuild.160101.0800)
- >> Product Version: 10.0.19041.1
- >> Language: English (United States)
- >> Legal Copyright: Microsoft Corporation. All rights reserved.

Possible Misuse

The following table contains possible examples of `pnputil.exe` being misused. While `pnputil.exe` is **not** inherently malicious, its legitimate functionality can be abused for malicious purposes.

| Source | Source File | Example | License |
|------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | title: Suspicious Driver Install by pnputil.exe | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | description: Detects when a possible suspicious driver is being installed via pnputil.exe lolbin | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | - https://docs.microsoft.com/en-us/windows-hardware/drivers/devtest/pnputil-command-syntax | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | - https://strontic.github.io/xcyclopedia/library/pnputil.exe-60EDC5E6BDBAEE441F2E3AEACD0340D2.html | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | - '\pnputil.exe' | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | - Pnputil.exe being used may be performed by a system administrator. | DRL 1.0 |
| sigma | proc creation win lolbins suspicious driver installed by pnputil.yml | - Pnputil.exe being executed from unfamiliar users should be investigated. If known behavior is causing false positives, it can be exempted from the rule. | DRL 1.0 |
| LOLBAS | Pnputil.yml | Name: Pnputil.exe | |
| LOLBAS | Pnputil.yml | - Command: pnputil.exe -i -a C:\Users\hai\Desktop\mo.inf | |
| LOLBAS | Pnputil.yml | - Path: C:\Windows\system32\pnputil.exe | |

Additional Info*

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pnputil

Pnputil.exe is a command line utility that you can use to manage the driver store. You can use this command to add driver packages, remove driver packages, and list driver packages that are in the store.

Syntax

```
pnputil.exe [-f | -i] [ -? | -a | -d | -e ] <INF name>
```

Parameters

| Parameter | Description |
|-----------|------------------------------------------------------------------------------------------------------------------------|
| -a | Specifies to add the identified INF file. |
| -d | Specifies to delete the identified INF file. |
| -e | Specifies to enumerate all third-party INF files. |
| -f | Specifies to force the deletion of the identified INF file. Can't be used in conjunction with the -i parameter. |
| -i | Specifies to install the identified INF file. Can't be used in conjunction with the -f parameter. |
| /? | Displays help at the command prompt. |

Examples

To add an INF file, named USBCAM.INF, type:

```
pnputil.exe -a a:\usbcam\USBCAM.INF
```

To add all INF files, located in c:\drivers, type:

```
pnputil.exe -a c:\drivers\*.inf
```

To add and install the USBCAM.INF driver, type:

```
pnputil.exe -i -a a:\usbcam\USBCAM.INF
```

To enumerate all third-party drivers, type:

```
pnputil.exe -e
```

To delete the INF file and driver named oem0.inf, type:

```
pnputil.exe -d oem0.inf
```

Additional References

>> [Command-Line Syntax Key](#)

>> [popd command](#)

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