

sysfs-bus-usb..txt

What: /sys/bus/usb/devices/.../power/autosuspend
Date: March 2007
KernelVersion: 2.6.21
Contact: Alan Stern <stern@rowland.harvard.edu>
Description:

Each USB device directory will contain a file named power/autosuspend. This file holds the time (in seconds) the device must be idle before it will be autosuspended. 0 means the device will be autosuspended as soon as possible. Negative values will prevent the device from being autosuspended at all, and writing a negative value will resume the device if it is already suspended.

The autosuspend delay for newly-created devices is set to the value of the usbcore.autosuspend module parameter.

What: /sys/bus/usb/devices/.../power/persist
Date: May 2007
KernelVersion: 2.6.23
Contact: Alan Stern <stern@rowland.harvard.edu>
Description:

If CONFIG_USB_PERSIST is set, then each USB device directory will contain a file named power/persist. The file holds a boolean value (0 or 1) indicating whether or not the "USB-Persist" facility is enabled for the device. Since the facility is inherently dangerous, it is disabled by default for all devices except hubs. For more information, see Documentation/usb/persist.txt.

What: /sys/bus/usb/device/.../power/connected_duration
Date: January 2008
KernelVersion: 2.6.25
Contact: Sarah Sharp <sarah.a.sharp@intel.com>
Description:

If CONFIG_PM and CONFIG_USB_SUSPEND are enabled, then this file is present. When read, it returns the total time (in msec) that the USB device has been connected to the machine. This file is read-only.

Users:

PowerTOP <power@bughost.org>
<http://www.lesswatts.org/projects/powertop/>

What: /sys/bus/usb/device/.../power/active_duration
Date: January 2008
KernelVersion: 2.6.25
Contact: Sarah Sharp <sarah.a.sharp@intel.com>
Description:

If CONFIG_PM and CONFIG_USB_SUSPEND are enabled, then this file is present. When read, it returns the total time (in msec) that the USB device has been active, i.e. not in a suspended state. This file is read-only.

Tools can use this file and the connected_duration file to compute the percentage of time that a device has been active. For example,
echo \$((100 * `cat active_duration` / `cat connected_duration`))

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will give an integer percentage. Note that this does not account for counter wrap.

Users:

PowerTOP <power@bughost.org>
<http://www.lesswatts.org/projects/powertop/>

What: /sys/bus/usb/device/<busnum>-<devnum>...:<config num>-<interface num>/supports_autosuspend

Date: January 2008

KernelVersion: 2.6.27

Contact: Sarah Sharp <sarah.a.sharp@intel.com>

Description:

When read, this file returns 1 if the interface driver for this interface supports autosuspend. It also returns 1 if no driver has claimed this interface, as an unclaimed interface will not stop the device from being autosuspended if all other interface drivers are idle. The file returns 0 if autosuspend support has not been added to the driver.

Users:

USB PM tool
<git://git.moblin.org/users/sarah/usb-pm-tool/>

What: /sys/bus/usb/device/.../authorized

Date: July 2008

KernelVersion: 2.6.26

Contact: David Vrabel <david.vrabel@csr.com>

Description:

Authorized devices are available for use by device drivers, non-authorized one are not. By default, wired USB devices are authorized.

Certified Wireless USB devices are not authorized initially and should be (by writing 1) after the device has been authenticated.

What: /sys/bus/usb/device/.../wusb_cdid

Date: July 2008

KernelVersion: 2.6.27

Contact: David Vrabel <david.vrabel@csr.com>

Description:

For Certified Wireless USB devices only.

A devices' s CDID, as 16 space-separated hex octets.

What: /sys/bus/usb/device/.../wusb_ck

Date: July 2008

KernelVersion: 2.6.27

Contact: David Vrabel <david.vrabel@csr.com>

Description:

For Certified Wireless USB devices only.

Write the device's connection key (CK) to start the authentication of the device. The CK is 16 space-separated hex octets.

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What: /sys/bus/usb/device/.../wusb_disconnect
Date: July 2008
KernelVersion: 2.6.27
Contact: David Vrabel <david.vrabel@csr.com>
Description:

For Certified Wireless USB devices only.

Write a 1 to force the device to disconnect
(equivalent to unplugging a wired USB device).

What: /sys/bus/usb/drivers/.../remove_id
Date: November 2009
Contact: CHENG Renquan <rqcheng@smu.edu.sg>
Description:

Writing a device ID to this file will remove an ID
that was dynamically added via the new_id sysfs entry.
The format for the device ID is:
idVendor idProduct. After successfully
removing an ID, the driver will no longer support the
device. This is useful to ensure auto probing won't
match the driver to the device. For example:
echo "046d c315" > /sys/bus/usb/drivers/foo/remove_id

What: /sys/bus/usb/device/.../avoid_reset_quirk
Date: December 2009
Contact: Oliver Neukum <oliver@neukum.org>
Description:

Writing 1 to this file tells the kernel that this
device will morph into another mode when it is reset.
Drivers will not use reset for error handling for
such devices.

Users:

usb_modeswitch