

USB Packet Analyzer using a scope

Written by Lior
Friday, 11 May 2012 13:08 -

Scope used: HP *Agilent* 54622D

Connect the Logic Analyzer probes:

LA0 to usb D- (green cable)

LA1 to usb D+ (White Cable)

GND to usb GND

Set the scope to:

Time/Div to 5.0ms/div (This is largest resolution which will capture sufficient data, while being able to see the individual bits).

Trigger to USB (required a firmware update)

Trigger offset to: start with 25ms and increase to 50ms to capture more data.

Use agiloadd to get data

`./agiloadd-0.0.6/agiloadd/agiloadd -d /dev/ttyS0 -s POD1 DATA Dongle -p MAX`

SCOPE COMMANDS

`:WAV:FORMAT WORD`

`:WAV:SOURCE POD1`

`:WAV:BYTEorder MSBfirst`

`:WAV:POINTS 2000`

`:WAV:PREamble?`

`:WAV:DATA?`

When sniffing with USB in linux

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:WAV:BYTeorder MSBfirst
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```

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Use agiload to get data (/mediaFiles/USB/agiload-0.0.6.tar.gz)
./agiload-0.0.6/agiload/agiload -d /dev/ttyS0 -s POD1 DATA Dongle -p MAX

SCOPE COMMANDS
:WAV:FORMAT WORD
:WAV:SOURCE POD1
:WAV:BYTeorder MSBfirst
:WAV:POINts 2000
:WAV:PREamble?
:WAV:DATA?

When sniffing with USB in linux
modprobe usbmon
cat /sys/kernel/debug/usb/usbmon/0u (for all devices)
cat /sys/kernel/debug/usb/usbmon/1u (for specific devices)

To Parse the data: /mediaFiles/USB/parseUSBData.pl

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