NWFLUG Meeting

Agenda

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- Welcome
- Computer Tech 2016
- NWFLUG Computer Science Award
- Atom editor (Tom)
- Linux utilities: ls* (Tom)
- Open floor
- Next meeting
Welcome

- We welcome new members and old.
- Please put your name on the attendance list and pass it around.
- We also welcome Perl 6 whose first, stable release was announced on Christmas Day, 2015! See <http://perl6.org> for details.
30 January 2016 at the Student Services Center, NWFSC. See <https://computertechnwf.org> for details and registration.

- Doors open at 0730
- So far ONLY TWO from this group have registered!
- Speakers should register.
- I still need someone to man the NWFLUG table in the morning. Taking turns would be great!
So far we have raised $60.00 for the award. We need $100.00.
New to me, but looks good. See it at <https://atom.io/>.
From the December issue of the Linux Journal: the ‘ls’ family of utilities get info from the /proc file system:

- `lsblk` - produces info about all block devices such as hard disks
- `lscpu` - shows info like number of CPUs, cores, and threads
- `lshw` - lists general hardware data
- `lspci` - displays info about PCI buses and attached devices
- `lsscsi` - displays info on all attached SCSI devices or hosts
- `lsusb` - generates info about attached USB buses and devices
**lsblk** - produces info about all block devices such as hard disks

```bash
$ lsblk
NAME   MAJ:MIN  RM  SIZE    RO TYPE  MOUNTPOINT
sda     8:0     0  931.5G 0  disk
|---sda1  8:1     0   100M 0  part
|---sda2  8:2     0  393.5G 0  part
|---sda3  8:3     0   286M 0  part  /boot
|---sda4  8:4     0    1K 0  part
|---sda5  8:5     0   1.9G 0  part  [SWAP]
|---sda6  8:6     0  93.1G 0  part  /
|---sda7  8:7     0  442.6G 0  part  /usr/local
sr0   11:0     1  1024M 0  rom
```
ls CPU - shows info like number of CPUs, cores, and threads

$ lscpu
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 2
On-line CPU(s) list: 0,1
Thread(s) per core: 1
Core(s) per socket: 2
Socket(s): 1
NUMA node(s): 1
Vendor ID: GenuineIntel
CPU family: 6
Model: 23
Stepping: 10
lscpu (continued)

CPU MHz: 800.000
BogoMIPS: 5585.96
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 6144K
NUMA node0 CPU(s): 0,1
lshw - lists general hardware data (only on DMI capable hosts)

A partial response:

```
$ lshw
WARNING: you should run this program as super-user.
WARNING: output may be incomplete or inaccurate, you should run this program as super-user.
juvat2
    description: Computer
    width: 64 bits
    capabilities: syscall32
*-core
    description: Motherboard
    physical id: 0
*-memory
    description: System memory
    physical id: 0
    size: 3854MiB
```
**lspci** - displays info about PCI buses and attached devices

```
$ lspci
00:00.0 Host bridge: Intel Corporation 82G33/G31/P35/P31 Express DRAM Controller (rev 02)
00:01.0 PCI bridge: Intel Corporation 82G33/G31/P35/P31 Express PCI Express Root Port (rev 02)
00:1a.0 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #4 (rev 02)
00:1a.1 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #5 (rev 02)
00:1a.2 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #6 (rev 02)
00:1a.7 USB controller: Intel Corporation 82801I (ICH9 Family) USB2 EHCI Controller #2 (rev 02)
00:1b.0 Audio device: Intel Corporation 82801I (ICH9 Family) HD Audio Controller (rev 02)
00:1c.0 PCI bridge: Intel Corporation 82801I (ICH9 Family) PCI Express Port 1 (rev 02)
00:1c.3 PCI bridge: Intel Corporation 82801I (ICH9 Family) PCI Express Port 4 (rev 02)
00:1c.4 PCI bridge: Intel Corporation 82801I (ICH9 Family) PCI Express Port 5 (rev 02)
00:1d.0 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #1 (rev 02)
00:1d.1 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #2 (rev 02)
00:1d.2 USB controller: Intel Corporation 82801I (ICH9 Family) USB UHCI Controller #3 (rev 02)
```
00:1d.7 USB controller: Intel Corporation 82801I (ICH9 Family) USB2 EHCI Controller #1 (rev 02)
00:1e.0 PCI bridge: Intel Corporation 82801 PCI Bridge (rev 92)
00:1f.0 ISA bridge: Intel Corporation 82801IB (ICH9) LPC Interface Controller (rev 02)
00:1f.2 IDE interface: Intel Corporation 82801IB (ICH9) 2 port SATA Controller [IDE mode] (rev 02)
00:1f.3 SMBus: Intel Corporation 82801I (ICH9 Family) SMBus Controller (rev 02)
00:1f.5 IDE interface: Intel Corporation 82801I (ICH9 Family) 2 port SATA Controller [IDE mode] (rev 02)
01:00.0 VGA compatible controller: NVIDIA Corporation GT218 [GeForce 210] (rev a2)
01:00.1 Audio device: NVIDIA Corporation High Definition Audio Controller (rev a1)
03:00.0 IDE interface: JMicron Technology Corp. JMB368 IDE controller
04:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168B PCI Express Gigabit Ethernet controller (rev 01)
05:00.0 Ethernet controller: VIA Technologies, Inc. VT6105/VT6106S [Rhine-III]
Iscsi - displays info on all attached SCSI devices or hosts

```bash
$ lsscsi
[2:0:0:0] disk ATA WDC WD10JPVX-22J 01.0 /dev/sda
[3:0:0:0] cd/dvd TSSTcorp DVD+-RW TS-U633F D400 /dev/sr0
```
$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 003 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 004 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 005 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 006 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 007 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 008 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 004 Device 002: ID 0a5c:5800 Broadcom Corp. BCM5880 Secure Applications Processor
Bus 006 Device 002: ID 0461:4d22 Primax Electronics, Ltd
Any new business, discussion, or comments?
Next meeting is 2016-02-01.

Ideas?
That’s all, folks!

Spread the word!