Guide HWINFO

- Objet : Obtenir de l'information sur les composants matériels d'un ordinateur avec l'utilitaire **hwinfo**.
- Niveau requis :
  débutant, avisé
- Commentaires : *Utile pour le dépannage, le soutien technique et la configuration du noyau.*
- Débutant, à savoir : Utiliser GNU/Linux en ligne de commande, tout commence là !.

Introduction

L'utilitaire `HWINFO` est conçu pour explorer les composants matériels d'un PC. L'information générée est fort utile pour du soutien technique. On peut s'en servir comme référence lors de la configuration du noyau. Si vous ne trouvez pas tout ce que vous cherchez sur l'usage de la commande, consultez le manuel pour en savoir plus.

```
man hwinfo
```

Utilisation

Cette section du tutoriel se divise en plusieurs sous-sections, chacune présentant un aspect précis de l'usage de la commande `hwinfo`.

La commande `hwinfo` oblige son exécution avec les droits d'administrateur (root).

Les informations générées par la commande `hwinfo` peuvent être enregistrées dans un fichier journal. Utilisez l'option **--log** suivi du nom du fichier où sauvegarder le résultat.

Il s'agit d'exemples. L'information obtenue variera selon votre configuration matérielle.

BIOS

```
hwinfo --bios
```

```
01: None 00.0: 10105 BIOS
  [Created at bios.186]
  Unique ID: rdCR.lZF+r4EgHp4
  Hardware Class: bios
  BIOS Keyboard LED Status:
    Scroll Lock: off
    Num Lock: on
```

```
    Caps Lock: off
  Base Memory: 625 kB
  PnP BIOS: @@@0000
  MP spec rev 1.4 info:
    OEM id: "INTEL"
    Product id: "Calpella CRB"
    2 CPUs (0 disabled)
  BIOS32 Service Directory Entry: 0xfdb60
  SMBIOS Version: 2.6
  Type 218 Record: #55808
    Data 00: da dd 00 da b2 00 d2 1b 0f 36 40 7d 00 00 00 00
    Data 10: 00 80 01 16 00 01 00 7f 01 16 00 00 00 52 01 17
    Data 20: 00 01 00 53 01 17 00 00 00 7c 01 18 00 01 00 7b
    Data 30: 01 18 00 00 00 75 01 75 01 01 00 76 01 76 01 01
    Data 40: 00 2e 00 25 00 00 00 6e 00 25 00 01 00 2d 00 25
    Data 50: 00 02 00 8a 01 48 00 01 00 89 01 48 00 00 00 9b
    Data 60: 00 23 00 01 00 9c 00 23 00 00 00 14 01 46 00 00
    Data 70: 00 15 01 46 00 01 00 16 01 46 00 02 00 8e 01 68
    Data 80: 00 01 00 8d 01 68 00 00 00 94 01 47 00 01 00 93
    Data 90: 01 47 00 00 00 ea 00 67 00 01 00 eb 00 67 00 00
    Data a0: 00 00 fe 00 00 00 00 01 fe 00 00 01 00 a0 fe 00
    Data b0: 00 00 00 a1 fe 00 00 01 00 e1 01 01 00 00 00 e2
    Data c0: 01 01 00 01 00 e3 01 01 00 02 00 dc 01 02 00 00
    Data d0: 00 dd 01 02 00 01 00 ff ff 00 00 00 00
  BIOS Info: #1
    Vendor: "Dell Inc."
    Version: "A05"
    Date: "07/14/2010"
    Start Address: 0xe0cf0
    ROM Size: 2048 kB
    Features: 0x0793001300007dcbda80
      PCI supported
      PnP supported
      BIOS flashable
      BIOS shadowing allowed
      ESCD supported
      CD boot supported
      Selectable boot supported
      BIOS ROM socketed
      EDD spec supported
      360kB Floppy supported
      1.2MB Floppy supported
      720kB Floppy supported
      Print Screen supported
      8042 Keyboard Services supported
      Serial Services supported
      Printer Services supported
      CGA/Mono Video supported
      ACPI supported
      USB Legacy supported
      LS-120 boot supported
```

```
      Smart Battery supported
      BIOS Boot Spec supported
      F12 Network boot supported
  System Info: #2
    Manufacturer: "Dell Inc."
    Product: "Studio 1749"
    Serial: "42063L1"
    UUID: undefined, but settable
    Wake-up: 0x06 (Power Switch)
  Board Info: #3
    Manufacturer: "Dell Inc."
    Product: "029DYC"
    Serial: ".42063L1.CN1296102J0182."
    Asset Tag: "1234567890"
    Type: 0x0a (Motherboard)
    Features: 0x09
      Hosting Board
      Replaceable
    Location: "Not Applicable"
    Chassis: #3
    Contained Objects: #0
  Chassis Info: #4
    Manufacturer: "Dell Inc."
    Serial: "42063L1"
    Asset Tag: "1234567890"
    Type: 0x08 (Portable)
    Bootup State: 0x03 (Safe)
    Power Supply State: 0x03 (Safe)
    Thermal State: 0x03 (Safe)
    Security Status: 0x03 (None)
  Processor Info: #5
    Socket: "U2E1"
    Socket Type: 0x04 (ZIF Socket)
    Socket Status: Populated
    Type: 0x03 (CPU)
    Family: 0x0b (Pentium)
    Manufacturer: "Intel"
    Version: "CPU Version"
    Processor ID: 0xbfebfbff00020652
    Status: 0x01 (Enabled)
    Voltage: 1.4 V
    External Clock: 1333 MHz
    Max. Speed: 2400 MHz
    Current Speed: 2400 MHz
    L1 Cache: #6
    L2 Cache: #7
    L3 Cache: #8
  Cache Info: #6
    Designation: "L1 Cache"
    Level: L1
    State: Enabled
```

```
    Mode: 0x01 (Write Back)
    Location: 0x00 (Internal, Socketed)
    ECC: 0x05 (Single-bit)
    Type: 0x04 (Data)
    Associativity: 0x07 (8-way Set-Associative)
    Max. Size: 64 kB
    Current Size: 64 kB
    Supported SRAM Types: 0x0058 (Burst, Pipeline Burst, Asynchronous)
    Current SRAM Type: 0x0040 (Asynchronous)
  Cache Info: #7
    Designation: "L2 Cache"
    Level: L2
    State: Enabled
    Mode: 0x01 (Write Back)
    Location: 0x00 (Internal, Socketed)
    ECC: 0x05 (Single-bit)
    Type: 0x05 (Unified)
    Associativity: 0x07 (8-way Set-Associative)
    Max. Size: 4096 kB
    Current Size: 256 kB
    Supported SRAM Types: 0x0058 (Burst, Pipeline Burst, Asynchronous)
    Current SRAM Type: 0x0008 (Burst)
  Cache Info: #8
    Designation: "L3 Cache"
    Level: L3
    State: Enabled
    Mode: 0x01 (Write Back)
    Location: 0x00 (Internal, Socketed)
    ECC: 0x05 (Single-bit)
    Type: 0x05 (Unified)
    Associativity: 0x01 (Other)
    Max. Size: 8192 kB
    Current Size: 3072 kB
    Supported SRAM Types: 0x0058 (Burst, Pipeline Burst, Asynchronous)
    Current SRAM Type: 0x0008 (Burst)
  Port Connector: #9
    Type: 0x10 (USB)
    Internal Designator: "USB"
    External Connector: 0x12 (Access Bus [USB])
  Port Connector: #10
    Type: 0x1c (Video Port)
    Internal Designator: "MONITOR"
    External Connector: 0x07 (DB-15 pin female)
  Port Connector: #11
    Type: 0x11 (FireWire [IEEE P1394])
    Internal Designator: "FireWire"
    External Connector: 0x21 (1394)
  Port Connector: #12
    Type: 0x1f (Network Port)
    Internal Designator: "Ethernet"
    External Connector: 0x0b (RJ-45)
```

```
  System Slot: #13
    Designation: "OZ888GS0"
    Type: 0xa5 (Other)
    Bus Width: 0x05 (32 bit)
    Status: 0x03 (Available)
    Length: 0x04 (Long)
    Slot ID: 6
    Characteristics: 0x0006 (5.0 V, 3.3 V)
  On Board Devices: #14
    Sound: "HD-Audio" (disabled)
  OEM Strings: #15
    Dell System
    1[041B]
    13[PP36S]
  System Config Options (Jumpers & Switches) #16:
    Jumper settings can be described here.
  Type 15 Record: #17
    Data 00: 0f 1d 11 00 00 00 00 00 00 00 04 00 00 00 00 00
    Data 10: 00 00 00 00 00 03 02 08 04 01 02 02 02
  Physical Memory Array: #18
    Use: 0x03 (System memory)
    Location: 0x03 (Motherboard)
    Slots: 2
    Max. Size: 8 GB
    ECC: 0x03 (None)
  Memory Device: #19
    Location: "M1"
    Bank: "Bank 0"
    Manufacturer: "02FE"
    Serial: "075E2576"
    Asset Tag: "0951"
    Part Number: "EBJ21UE8BDS0-DJ-F"
    Memory Array: #18
    Error Info: No Error
    Form Factor: 0x0d (SODIMM)
    Type: 0x18 (Other)
    Type Detail: 0x0080 (Synchronous)
    Data Width: 64 bits
    Size: 2 GB
    Speed: 1333 MHz
  Memory Device: #20
    Location: "M2"
    Bank: "Bank 1"
    Manufacturer: "02FE"
    Serial: "0A5E2576"
    Asset Tag: "0951"
    Part Number: "EBJ21UE8BDS0-DJ-F"
    Memory Array: #18
    Error Info: No Error
    Form Factor: 0x0d (SODIMM)
    Type: 0x18 (Other)
```

```
    Type Detail: 0x0080 (Synchronous)
    Data Width: 64 bits
    Size: 2 GB
    Speed: 1333 MHz
  32bit-Memory Error Info: #21
    Type: 0x03 (OK)
    Granularity: 0x02 (Unknown)
    Operation: 0x02 (Unknown)
  32bit-Memory Error Info: #22
    Type: 0x03 (OK)
    Granularity: 0x02 (Unknown)
    Operation: 0x02 (Unknown)
  Memory Array Mapping: #23
    Memory Array: #18
    Partition Width: 2
    Start Address: 0x0000000000000000
    End Address: 0x0000000100000000
  Memory Device Mapping: #24
    Memory Device: #19
    Array Mapping: #23
    Row: 1
    Interleave Pos: 0
    Interleaved Depth: 1
    Start Address: 0x00000000
    End Address: 0x80000000
  Memory Device Mapping: #25
    Memory Device: #20
    Array Mapping: #23
    Row: 1
    Interleave Pos: 0
    Interleaved Depth: 1
    Start Address: 0x0000000080000000
    End Address: 0x0000000100000000
  Pointing Device: #26
    Type: 0x07 (Touch Pad)
    Interface: 0x07 (Bus Mouse)
    Buttons: 2
  Inactive Record: #27
    Data 00: 7e 1a 1b 00 01 02 00 00 02 02 00 00 00 00 04 ff
    Data 10: 00 00 01 00 05 0a 00 00 00 00
    String 1: "System Battery Bay"
    String 2: "DELL"
    String 3: "Dell"
    String 4: "1.1"
    String 5: "Li-ion"
  Type 23 Record: #28
    Data 00: 17 0d 1c 00 3f ff ff ff ff ff ff ff ff
  Hardware Security: #29
    Power-on Password: 0x00 (Disabled)
    Keyboard Password: 0x03 (Unknown)
    Admin Password: 0x00 (Disabled)
```

```
    Front Panel Reset: 0x03 (Unknown)
  System Power Controls: #30
    Next Power-on: 23:59:59 31/12
  Type 26 Record: #31
    Data 00: 1a 14 1f 00 01 63 00 80 00 80 00 80 00 80 00 80
    Data 10: 00 00 00 00
    String 1: "Voltage Probe"
  Type 27 Record: #32
    Data 00: 1b 0c 20 00 21 00 63 00 00 00 00 00
  Type 28 Record: #33
    Data 00: 1c 14 21 00 01 63 00 80 00 80 00 80 00 80 00 80
    Data 10: 00 00 00 00
    String 1: "Temperature Probe"
  Type 29 Record: #34
    Data 00: 1d 14 22 00 01 63 00 80 00 80 00 80 00 80 00 80
    Data 10: 00 00 00 00
    String 1: "Electrical Current Probe"
  Type 30 Record: #35
    Data 00: 1e 06 23 00 01 02
    String 1: "Intel"
  Type 32 Record: #36
    Data 00: 20 14 24 00 00 00 00 00 00 00 00 00 00 00 00 00
    Data 10: 00 00 00 00
  Type 39 Record: #37
    Data 00: 27 16 25 00 01 01 02 03 04 05 06 07 00 80 12 09
    Data 10: 1f 00 20 00 22 00
    String 1: "To Be Defined By O.E.M"
    String 2: "To Be Defined By O.E.M"
    String 3: "To Be Defined By O.E.M"
    String 4: "To Be Defined By O.E.M"
    String 5: "To Be Defined By O.E.M"
    String 6: "To Be Defined By O.E.M"
    String 7: "2.50"
  Type 176 Record: #45056
    Data 00: b0 05 00 b0 00
  Type 177 Record: #45312
    Data 00: b1 0c 00 b1 1a 0e 00 00 00 00 00 00
  Type 208 Record: #53248
    Data 00: d0 0c 00 d0 01 05 fe 00 1b 04 01 02
    String 1: "20070319"
    String 2: "20070319"
  Type 212 Record: #54272
    Data 00: d4 11 00 d4 70 00 71 00 00 10 2d 2e ff ff 00 00
    Data 10: 00
  Type 216 Record: #55296
    Data 00: d8 09 00 d8 01 02 01 f0 03
    String 1: "ATI"
    String 2: "011.021.000.007"
  Type 217 Record: #55552
    Data 00: d9 0a 00 d9 01 02 01 02 01 03
    String 1: "US-101"
```

```
    String 2: "Proprietary"
  Type 220 Record: #56320
    Data 00: dc 14 00 dc 01 f0 00 00 02 f0 00 00 03 f0 04 f0
    Data 10: 00 00 00 00
  Type 221 Record: #56576
    Data 00: dd 13 00 dd 00 00 00 00 00 00 00 00 00 00 00 00
    Data 10: 00 00 00
  Type 222 Record: #56832
    Data 00: de 10 00 de 01 02 ff ff 00 00 00 00 00 00 00 00
  Config Status: cfg=new, avail=yes, need=no, active=unknown
```

Cartes réseau

Fix Me!

Cartes de son

Fix Me!

Cartes vidéo

Fix Me!

Processeur

```
hwinfo --cpu
```

```
01: None 00.0: 10103 CPU
  [Created at cpu.455]
  Unique ID: rdCR.j8NaKXDZtZ6
  Hardware Class: cpu
  Arch: X86-64
  Vendor: "GenuineIntel"
  Model: 6.37.2 "Intel(R) Core(TM) i5 CPU       M 520  @ 2.40GHz"
  Features:
fpu,vme,de,pse,tsc,msr,pae,mce,cx8,apic,sep,mtrr,pge,mca,cmov,pat,pse36,clfl
ush,dts,acpi,mmx,fxsr,sse,sse2
,ss,ht,tm,pbe,syscall,nx,rdtscp,lm,constant_tsc,arch_perfmon,pebs,bts,rep_go
od,nopl,xtopology,nonstop_tsc,
aperfmperf,pni,pclmulqdq,dtes64,monitor,ds_cpl,vmx,smx,est,tm2,ssse3,cx16,xt
pr,pdcm,sse4_1,sse4_2,popcnt,
aes,lahf_lm,ida,arat,dtherm,tpr_shadow,vnmi,flexpriority,ept,vpid
  Clock: 1200 MHz
  BogoMips: 4788.04
  Cache: 3072 kb
  Units/Processor: 16
```

```
  Config Status: cfg=new, avail=yes, need=no, active=unknown

02: None 01.0: 10103 CPU
  [Created at cpu.455]
  Unique ID: wkFv.j8NaKXDZtZ6
  Hardware Class: cpu
  Arch: X86-64
  Vendor: "GenuineIntel"
  Model: 6.37.2 "Intel(R) Core(TM) i5 CPU       M 520  @ 2.40GHz"
  Features:
fpu,vme,de,pse,tsc,msr,pae,mce,cx8,apic,sep,mtrr,pge,mca,cmov,pat,pse36,clfl
ush,dts,acpi,mmx,fxsr,sse,sse2
,ss,ht,tm,pbe,syscall,nx,rdtscp,lm,constant_tsc,arch_perfmon,pebs,bts,rep_go
od,nopl,xtopology,nonstop_tsc,
aperfmperf,pni,pclmulqdq,dtes64,monitor,ds_cpl,vmx,smx,est,tm2,ssse3,cx16,xt
pr,pdcm,sse4_1,sse4_2,popcnt,
aes,lahf_lm,ida,arat,dtherm,tpr_shadow,vnmi,flexpriority,ept,vpid
  Clock: 1200 MHz
  BogoMips: 4788.04
  Cache: 3072 kb
  Units/Processor: 16
  Config Status: cfg=new, avail=yes, need=no, active=unknown

03: None 02.0: 10103 CPU
  [Created at cpu.455]
  Unique ID: +rIN.j8NaKXDZtZ6
  Hardware Class: cpu
  Arch: X86-64
  Vendor: "GenuineIntel"
  Model: 6.37.2 "Intel(R) Core(TM) i5 CPU       M 520  @ 2.40GHz"
  Features:
fpu,vme,de,pse,tsc,msr,pae,mce,cx8,apic,sep,mtrr,pge,mca,cmov,pat,pse36,clfl
ush,dts,acpi,mmx,fxsr,sse,sse2
,ss,ht,tm,pbe,syscall,nx,rdtscp,lm,constant_tsc,arch_perfmon,pebs,bts,rep_go
od,nopl,xtopology,nonstop_tsc,
aperfmperf,pni,pclmulqdq,dtes64,monitor,ds_cpl,vmx,smx,est,tm2,ssse3,cx16,xt
pr,pdcm,sse4_1,sse4_2,popcnt,
aes,lahf_lm,ida,arat,dtherm,tpr_shadow,vnmi,flexpriority,ept,vpid
  Clock: 1200 MHz
  BogoMips: 4788.04
  Cache: 3072 kb
  Units/Processor: 16
  Config Status: cfg=new, avail=yes, need=no, active=unknown

04: None 03.0: 10103 CPU
  [Created at cpu.455]
  Unique ID: 4zLr.j8NaKXDZtZ6
  Hardware Class: cpu
  Arch: X86-64
  Vendor: "GenuineIntel"
  Model: 6.37.2 "Intel(R) Core(TM) i5 CPU       M 520  @ 2.40GHz"
```

```
  Features:
fpu,vme,de,pse,tsc,msr,pae,mce,cx8,apic,sep,mtrr,pge,mca,cmov,pat,pse36,clfl
ush,dts,acpi,mmx,fxsr,sse,sse2
,ss,ht,tm,pbe,syscall,nx,rdtscp,lm,constant_tsc,arch_perfmon,pebs,bts,rep_go
od,nopl,xtopology,nonstop_tsc,
aperfmperf,pni,pclmulqdq,dtes64,monitor,ds_cpl,vmx,smx,est,tm2,ssse3,cx16,xt
pr,pdcm,sse4_1,sse4_2,popcnt,
aes,lahf_lm,ida,arat,dtherm,tpr_shadow,vnmi,flexpriority,ept,vpid
  Clock: 2400 MHz
  BogoMips: 4788.04
  Cache: 3072 kb
  Units/Processor: 16
  Config Status: cfg=new, avail=yes, need=no, active=unknown
```

Ici on remarque qu'il y a 4 CPU Core I5 Intel. La vitesse maximale de chacun d'eux est 2400 MHz. La valeur **ht** dans **Features** indique que le `hyperthreading` est supporté par le processeur. **Arch** montre que l'architecture du processeur est 64-bit.