

# hwinfo User Manual V01

---

## 1. 支持OS

---

- [✓] Centos 7/8
  - [✓] Debian 9/10
- 

## 2. 依赖关系

---

如需要获取GPU Information 需要先安装GPU Driver， 安装步骤如下

1. 如果OS带图形界面需init 3， 切换到文本界面安装
2. 运行命令`./NVIDIA-Linux-x86_64-xxx.xx.xx.run --no-opengl-files` 选择默认选项
3. 确认`nvidia-smi`命令可执行即表示安装成功

## 3. 使用方法

---

1. 将hwinfo工具拷贝到Linux OS下
2. 获取使用帮助信息`./hwinfo -h`

```
usage: hwinfo [-format] [-options ...]

optional arguments:
  -h, --help                show this help message and exit
  -V, -v                    show program's version number and exit

format can be

  -json                     output hardware tree as a JSON object
  -txt                      output hardware tree as txt

options can be

  -class {server,mlb,cpu,mem,psu,raid,net,hdd,ssd,nvme,gpu}
  [{server,mlb,cpu,mem,psu,raid,net,hdd,ssd,nvme,gpu} ...]
                        only show a certain class of hardware
  -log LOG                  set script output log to file
  -quiet                   don't display status
  -dump DUMP               save hardware tree to a file
```

3. 获取所有硬件信息

2 / 19

```
INF [20240917-18:50:12.423] hwinfo:
INF [20240917-18:50:12.423] hwinfo:
=====
INF [20240917-18:50:12.423] hwinfo.dram: #dram information
INF [20240917-18:50:12.433] hwinfo.dram:
+-----+
|
|                                     DIMM Information
|
+-----+-----+-----+-----+-----+-----+
| Location | Manufacturer | PartNumber | SerialNumber | Capacity |
OperatingSpeed | RatedSpeed | DeviceType | RankCount |
+-----+-----+-----+-----+-----+-----+
| CPU0_D0 | Samsung | M393A4K40BB2-CTD | S00DA1080538327DB4 | 32 GB |
2400 MT/s | 2666 MT/s | DDR4 | 2 |
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+
INF [20240917-18:50:12.433] hwinfo:
INF [20240917-18:50:12.433] hwinfo:
=====
INF [20240917-18:50:12.433] hwinfo.psu: #psu information
INF [20240917-18:50:13.034] hwinfo.psu:
+-----+-----+
|
|                                     PSU Information
|
+-----+-----+-----+-----+-----+-----+
| Location | Manufacturer | Model | SerialNumber | Firmware | MaxPower |
+-----+-----+-----+-----+-----+-----+
| PSU1 | Liteon | PS-2801-9L | 60CWN0103K042D7 | 00.06.09 | 800W |
| PSU2 | Liteon | PS-2801-9L | 60CWN0105M019NE | 00.06.09 | 800W |
+-----+-----+-----+-----+-----+-----+
INF [20240917-18:50:13.034] hwinfo:
INF [20240917-18:50:13.034] hwinfo:
=====
INF [20240917-18:50:13.034] hwinfo.hba: #hba(raid) information
DEB [20240917-18:50:13.090] hwinfo.hba: FOUND 1 CARDS
INF [20240917-18:50:13.092] hwinfo.hba:
+-----+
|
|                                     HBA Information
|
+-----+-----+-----+-----+-----+-----+
|
| Type | Firmware | BIOS | BIOS Date | PCI id |
Firmware Rev | MPT Rev |
+-----+-----+-----+-----+-----+-----+
| LSI Logic SAS3008 C0 | 16.00.10 | 8.37.00.00 | 2018.04.04 | 0000:5e:00:0 |
205 | 10000a00 |
+-----+-----+-----+-----+-----+-----+
+-----+-----+
INF [20240917-18:50:13.092] hwinfo:
INF [20240917-18:50:13.092] hwinfo:
```

4 / 19

```

-+-----+-----+
INF [20240917-18:50:14.073] hwinfo:
INF [20240917-18:50:14.073] hwinfo:
=====
INF [20240917-18:50:14.073] hwinfo.ssd: #ssd information
INF [20240917-18:50:14.089] hwinfo:
INF [20240917-18:50:14.089] hwinfo:
=====
INF [20240917-18:50:14.089] hwinfo.nvme: #nvme information
INF [20240917-18:50:14.090] hwinfo:
INF [20240917-18:50:14.090] hwinfo:
=====
INF [20240917-18:50:14.090] hwinfo.gpu: #gpu information
INF [20240917-18:50:14.134] hwinfo.gpu: Not Found GPU
INF [20240917-18:50:14.135] hwinfo:

```

#### 4. 获取单个或多个类型信息

```
root@SUT1:~# ./hwinfo -c net nvme
INF [20190217-22:02:09.643] hwinfo:
=====
INF [20190217-22:02:09.643] hwinfo.nic: #nic information
INF [20190217-22:02:09.903] hwinfo.nic:
+-----+
|
|
Controler Information
|
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+
|      Bus      | Manufacturer |          Model          | Type |
PartNumber      | Serialnumber |          Firmware       | LinkSpeed |
LinkWidth |
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+
| 0000:31:00.0 | Mellanox | MT2892 Family [ConnectX-6 Dx] | OCP |
MCX623430MS-CDAB | MT23494001V1 | 22.35.3502 (MT_0000000774) |
16GT/s | x16 |
| 0000:31:00.1 | Mellanox | MT2892 Family [ConnectX-6 Dx] | OCP |
MCX623430MS-CDAB | MT23494001V1 | 22.35.3502 (MT_0000000774) |
16GT/s | x16 |
| 2-1:1.0 | None | None | USB |
None | None | | None |
None |
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+
INF [20190217-22:02:09.906] hwinfo.nic:
```

```
-----+
|
|                                     NICPort Information
|
+-----+-----+-----+-----+-----+
-----+-----+-----+
|      ID      |      PortName      |      MacAddr      |      Speed      |      Driver      |
DriverVersion  | MediaType | LinkStatus |
+-----+-----+-----+-----+-----+
-----+-----+-----+
| 0000:31:00.0 | ens5f0np0 | 58:a2:e1:26:b9:c4 | Unknown! | mlx5_core |
5.15.120-usbdebug+ | None | no |
| 0000:31:00.1 | ens5f1np1 | 58:a2:e1:26:b9:c5 | Unknown! | mlx5_core |
5.15.120-usbdebug+ | None | no |
| 2-1:1.0 | enx8e43bf1493d | f8:e4:3b:f1:49:3d | 1000Mb/s | ax88179_178a |
5.15.120-usbdebug+ | None | yes |
+-----+-----+-----+-----+-----+
-----+-----+-----+
INF [20190217-22:02:09.906] hwinfo:
INF [20190217-22:02:09.906] hwinfo:
=====
INF [20190217-22:02:09.906] hwinfo.nvme: #nvme information
INF [20190217-22:02:09.977] hwinfo.nvme:
+-----+-----+-----+
-----+-----+-----+
|
|                                     NVMe Information
|
+-----+-----+-----+-----+-----+
-----+-----+-----+-----+
|      dev      | manufacturer |      model      |      serialnumber      |
capacity | firmware | numa_node |      bdf      |
+-----+-----+-----+-----+-----+
-----+-----+-----+-----+
| /dev/nvme0 | SAMSUNG | SAMSUNG MZQL27T6HBLA-00B7C | S6CVNE0R906652 | 7.68
TB | GDC56C2Q | 0 | 0000:4b:00.0 |
+-----+-----+-----+-----+-----+
-----+-----+-----+
INF [20190217-22:02:09.977] hwinfo:
```

5. 输入为json format

```
[root@simonlinux dist]# ./hwinfo -json
INF [20240917-18:51:32.509] hwinfo.server: #server information
INF [20240917-18:51:32.643] hwinfo.mlb: #MLB information
INF [20240917-18:51:32.897] hwinfo.cpu: #cpu information
INF [20240917-18:51:32.904] hwinfo.dram: #dram information
INF [20240917-18:51:32.914] hwinfo.psu: #psu information
INF [20240917-18:51:33.583] hwinfo.hba: #hba(raid) information
DEB [20240917-18:51:33.641] hwinfo.hba: FOUND 1 CARDS
INF [20240917-18:51:33.642] hwinfo.nic: #nic information
INF [20240917-18:51:33.995] hwinfo.hdd: #hdd information
INF [20240917-18:51:34.363] hwinfo.ssd: #ssd information
INF [20240917-18:51:34.379] hwinfo.nvme: #nvme information
```

```
INF [20240917-18:51:34.379] hwinfo.gpu: #gpu information
INF [20240917-18:51:34.427] hwinfo.gpu: Not Found GPU
INF [20240917-18:51:34.427] hwinfo: {
  "server": {
    "Manufacturer": "Inventec",
    "Model": "RM761-IV",
    "ProductNumber": "WC2214051001",
    "SerialNumber": "CKTC39AJ025",
    "Suite": null,
    "Assettag": ""
  },
  "mlb": {
    "BIOS": "K888Q234",
    "BMC": "02.43.00",
    "BMC_MAC": "38:68:dd:51:fe:0e",
    "CPLD": null,
    "PartNumber": "1395T3013703",
    "ProductName": "ARBOK",
    "SerialNumber": "AR16PP1059",
    "Version": null,
    "Manufacturer": "Inventec"
  },
  "cpu": {
    "Maximum": 2,
    "details": [
      {
        "Socket": "CPU0",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      },
      {
        "Socket": "CPU1",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      }
    ]
  },
  "mem": {
    "Maximum": 1,
    "DRAM_TOP": "000000100000000000000000",
    "TotalSystemMemorySize[GiB]": 32,
    "details": [
      {
        "Location": "CPU0_D0",
```

```
        "Manufacturer": "Samsung",
        "PartNumber": "M393A4K40BB2-CTD",
        "SerialNumber": "S00DA1080538327DB4",
        "Capacity": "32 GB",
        "OperatingSpeed": "2400 MT/s",
        "RatedSpeed": "2666 MT/s",
        "DeviceType": "DDR4",
        "RankCount": "2"
    }
]
},
"psu": [
    {
        "Location": "PSU1",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0103K042D7",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    },
    {
        "Location": "PSU2",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0105M019NE",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    }
],
"raid": [
    {
        "Type": "LSI Logic SAS3008 C0",
        "Firmware": "16.00.10",
        "BIOS": "8.37.00.00",
        "BIOS Date": "2018.04.04",
        "PCI id": "0000:5e:00:0",
        "Firmware Rev": "205",
        "MPT Rev": "10000a00"
    }
],
"net": [
    {
        "Bus": "0000:3d:00.1",
        "DEVID": "8086:37d2",
        "SYSID": "1170:37d2",
        "Manufacturer": "Intel",
        "Model": "Ethernet Connection X722 for 10GBASE-T",
        "Type": "PCIe",
        "PartNumber": null,
        "Serialnumber": null,
        "Firmware": "4.10 0x80001a64 1.2585.0",
        "LinkSpeed": "2.5GT/s",
        "LinkWidth": "x1",
        "Port": {
```



```
        "ID": "0000:3d:00.1",
        "PortName": "enp61s0f1",
        "MacAddr": "38:68:dd:51:fe:0d",
        "Speed": "1000Mb/s",
        "Driver": "i40e",
        "DriverVersion": "2.3.2-k",
        "MediaType": null,
        "LinkStatus": "yes"
    }
},
{
    "Bus": "0000:3d:00.0",
    "DEVID": "8086:37d2",
    "SYSID": "1170:37d2",
    "Manufacturer": "Intel",
    "Model": "Ethernet Connection X722 for 10GBASE-T",
    "Type": "PCIe",
    "PartNumber": null,
    "Serialnumber": null,
    "Firmware": "4.10 0x80001a64 1.2585.0",
    "LinkSpeed": "2.5GT/s",
    "LinkWidth": "x1",
    "Port": {
        "ID": "0000:3d:00.0",
        "PortName": "enp61s0f0",
        "MacAddr": "38:68:dd:51:fe:0c",
        "Speed": "1000Mb/s",
        "Driver": "i40e",
        "DriverVersion": "2.3.2-k",
        "MediaType": null,
        "LinkStatus": "yes"
    }
}
],
"hdd": [
    {
        "Logical": "sda",
        "Manufacturer": "Seagate",
        "Model": "ST8000AS0002-1NA17Z",
        "SerialNumber": "Z84047X7",
        "Size": "8.00 TB",
        "Firmware": "AR15",
        "RPM": 5980,
        "LinkSpeed": "6.0 Gb/s"
    }
],
"ssd": [],
"nvme": [],
"gpu": []
}
{
    "server": {
        "Manufacturer": "Inventec",
        "Model": "RM761-IV",
```

```
"ProductNumber": "WC2214051001",
"SerialNumber": "CKTC39AJ025",
"Suite": null,
"Assettag": "",
},
"mlb": {
  "BIOS": "K888Q234",
  "BMC": "02.43.00",
  "BMC_MAC": "38:68:dd:51:fe:0e",
  "CPLD": null,
  "PartNumber": "1395T3013703",
  "ProductName": "ARBOK",
  "SerialNumber": "AR16PP1059",
  "Version": null,
  "Manufacturer": "Inventec"
},
"cpu": {
  "Maximum": 2,
  "details": [
    {
      "Socket": "CPU0",
      "Manufacturer": "Intel(R) Corporation",
      "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
      "PPIN": "56060500FFFBEBBF",
      "MaxSpeedMHz": "4000 MHz",
      "CurrentSpeedMHz": "2100 MHz",
      "TotalCores": "8",
      "TotalThreads": "16"
    },
    {
      "Socket": "CPU1",
      "Manufacturer": "Intel(R) Corporation",
      "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
      "PPIN": "56060500FFFBEBBF",
      "MaxSpeedMHz": "4000 MHz",
      "CurrentSpeedMHz": "2100 MHz",
      "TotalCores": "8",
      "TotalThreads": "16"
    }
  ]
},
"mem": {
  "Maximum": 1,
  "DRAM_TOP": "000000100000000000000000",
  "TotalSystemMemorySize[GiB]": 32,
  "details": [
    {
      "Location": "CPU0_D0",
      "Manufacturer": "Samsung",
      "PartNumber": "M393A4K40BB2-CTD",
      "SerialNumber": "S00DA1080538327DB4",
      "Capacity": "32 GB",
      "OperatingSpeed": "2400 MT/s",
      "RatedSpeed": "2666 MT/s",
```

```
        "DeviceType": "DDR4",
        "RankCount": "2"
    }
]
},
"psu": [
    {
        "Location": "PSU1",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0103K042D7",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    },
    {
        "Location": "PSU2",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0105M019NE",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    }
],
"raid": [
    {
        "Type": "LSI Logic SAS3008 C0",
        "Firmware": "16.00.10",
        "BIOS": "8.37.00.00",
        "BIOS Date": "2018.04.04",
        "PCI id": "0000:5e:00:0",
        "Firmware Rev": "205",
        "MPT Rev": "10000a00"
    }
],
"net": [
    {
        "Bus": "0000:3d:00.1",
        "DEVID": "8086:37d2",
        "SYSID": "1170:37d2",
        "Manufacturer": "Intel",
        "Model": "Ethernet Connection X722 for 10GBASE-T",
        "Type": "PCIe",
        "PartNumber": null,
        "Serialnumber": null,
        "Firmware": "4.10 0x80001a64 1.2585.0",
        "LinkSpeed": "2.5GT/s",
        "LinkWidth": "x1",
        "Port": {
            "ID": "0000:3d:00.1",
            "PortName": "enp61s0f1",
            "MacAddr": "38:68:dd:51:fe:0d",
            "Speed": "1000Mb/s",
            "Driver": "i40e",
            "DriverVersion": "2.3.2-k",
```

```

        "MediaType": null,
        "LinkStatus": "yes"
    }
},
{
    "Bus": "0000:3d:00.0",
    "DEVID": "8086:37d2",
    "SYSID": "1170:37d2",
    "Manufacturer": "Intel",
    "Model": "Ethernet Connection X722 for 10GBASE-T",
    "Type": "PCIe",
    "PartNumber": null,
    "Serialnumber": null,
    "Firmware": "4.10 0x80001a64 1.2585.0",
    "LinkSpeed": "2.5GT/s",
    "LinkWidth": "x1",
    "Port": {
        "ID": "0000:3d:00.0",
        "PortName": "enp61s0f0",
        "MacAddr": "38:68:dd:51:fe:0c",
        "Speed": "1000Mb/s",
        "Driver": "i40e",
        "DriverVersion": "2.3.2-k",
        "MediaType": null,
        "LinkStatus": "yes"
    }
}
],
"hdd": [
    {
        "Logical": "sda",
        "Manufacturer": "Seagate",
        "Model": "ST8000AS0002-1NA17Z",
        "SerialNumber": "Z84047X7",
        "Size": "8.00 TB",
        "Firmware": "AR15",
        "RPM": 5980,
        "LinkSpeed": "6.0 Gb/s"
    }
],
"ssd": [],
"nvme": [],
"gpu": []
}

```

## 6. 将结果保存到文件内

```

[root@simonlinux dist]# ./hwinfo -json -d hwinfo.json
INF [20240917-18:52:56.474] hwinfo.server: #server information
INF [20240917-18:52:56.602] hwinfo.mlb: #MLB information
INF [20240917-18:52:56.868] hwinfo.cpu: #cpu information
INF [20240917-18:52:56.875] hwinfo.dram: #dram information

```

```
INF [20240917-18:52:56.885] hwinfo.psu: #psu information
INF [20240917-18:52:57.479] hwinfo.hba: #hba(raid) information
DEB [20240917-18:52:57.536] hwinfo.hba: FOUND 1 CARDS
INF [20240917-18:52:57.537] hwinfo.nic: #nic information
INF [20240917-18:52:57.872] hwinfo.hdd: #hdd information
INF [20240917-18:52:58.245] hwinfo.ssd: #ssd information
INF [20240917-18:52:58.261] hwinfo.nvme: #nvme information
INF [20240917-18:52:58.262] hwinfo.gpu: #gpu information
INF [20240917-18:52:58.308] hwinfo.gpu: Not Found GPU
INF [20240917-18:52:58.309] hwinfo: {
  "server": {
    "Manufacturer": "Inventec",
    "Model": "RM761-IV",
    "ProductNumber": "WC2214051001",
    "SerialNumber": "CKTC39AJ025",
    "Suite": null,
    "Assettag": ""
  },
  "mlb": {
    "BIOS": "K888Q234",
    "BMC": "02.43.00",
    "BMC_MAC": "38:68:dd:51:fe:0e",
    "CPLD": null,
    "PartNumber": "1395T3013703",
    "ProductName": "ARBOK",
    "SerialNumber": "AR16PP1059",
    "Version": null,
    "Manufacturer": "Inventec"
  },
  "cpu": {
    "Maximum": 2,
    "details": [
      {
        "Socket": "CPU0",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      },
      {
        "Socket": "CPU1",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      }
    ]
  }
},
```

```
"mem": {
  "Maximum": 1,
  "DRAM_TOP": "000000100000000000000000",
  "TotalSystemMemorySize[GiB]": 32,
  "details": [
    {
      "Location": "CPU0_D0",
      "Manufacturer": "Samsung",
      "PartNumber": "M393A4K40BB2-CTD",
      "SerialNumber": "S00DA1080538327DB4",
      "Capacity": "32 GB",
      "OperatingSpeed": "2400 MT/s",
      "RatedSpeed": "2666 MT/s",
      "DeviceType": "DDR4",
      "RankCount": "2"
    }
  ]
},
"psu": [
  {
    "Location": "PSU1",
    "Manufacturer": "Liteon",
    "Model": "PS-2801-9L",
    "SerialNumber": "60CWN0103K042D7",
    "Firmware": "00.06.09",
    "MaxPower": "800W"
  },
  {
    "Location": "PSU2",
    "Manufacturer": "Liteon",
    "Model": "PS-2801-9L",
    "SerialNumber": "60CWN0105M019NE",
    "Firmware": "00.06.09",
    "MaxPower": "800W"
  }
],
"raid": [
  {
    "Type": "LSI Logic SAS3008 C0",
    "Firmware": "16.00.10",
    "BIOS": "8.37.00.00",
    "BIOS Date": "2018.04.04",
    "PCI id": "0000:5e:00:0",
    "Firmware Rev": "205",
    "MPT Rev": "10000a00"
  }
],
"net": [
  {
    "Bus": "0000:3d:00.1",
    "DEVID": "8086:37d2",
    "SYSID": "1170:37d2",
    "Manufacturer": "Intel",
    "Model": "Ethernet Connection X722 for 10GBASE-T",
```

```
    "Type": "PCIe",
    "PartNumber": null,
    "Serialnumber": null,
    "Firmware": "4.10 0x80001a64 1.2585.0",
    "LinkSpeed": "2.5GT/s",
    "LinkWidth": "x1",
    "Port": {
      "ID": "0000:3d:00.1",
      "PortName": "enp61s0f1",
      "MacAddr": "38:68:dd:51:fe:0d",
      "Speed": "1000Mb/s",
      "Driver": "i40e",
      "DriverVersion": "2.3.2-k",
      "MediaType": null,
      "LinkStatus": "yes"
    }
  },
  {
    "Bus": "0000:3d:00.0",
    "DEVID": "8086:37d2",
    "SYSID": "1170:37d2",
    "Manufacturer": "Intel",
    "Model": "Ethernet Connection X722 for 10GBASE-T",
    "Type": "PCIe",
    "PartNumber": null,
    "Serialnumber": null,
    "Firmware": "4.10 0x80001a64 1.2585.0",
    "LinkSpeed": "2.5GT/s",
    "LinkWidth": "x1",
    "Port": {
      "ID": "0000:3d:00.0",
      "PortName": "enp61s0f0",
      "MacAddr": "38:68:dd:51:fe:0c",
      "Speed": "1000Mb/s",
      "Driver": "i40e",
      "DriverVersion": "2.3.2-k",
      "MediaType": null,
      "LinkStatus": "yes"
    }
  }
],
"hdd": [
  {
    "Logical": "sda",
    "Manufacturer": "Seagate",
    "Model": "ST8000AS0002-1NA17Z",
    "SerialNumber": "Z84047X7",
    "Size": "8.00 TB",
    "Firmware": "AR15",
    "RPM": 5980,
    "LinkSpeed": "6.0 Gb/s"
  }
],
"ssd": [],
```

```
"nvme": [],
"gpu": []
}
{
  "server": {
    "Manufacturer": "Inventec",
    "Model": "RM761-IV",
    "ProductNumber": "WC2214051001",
    "SerialNumber": "CKTC39AJ025",
    "Suite": null,
    "Assettag": ""
  },
  "mlb": {
    "BIOS": "K888Q234",
    "BMC": "02.43.00",
    "BMC_MAC": "38:68:dd:51:fe:0e",
    "CPLD": null,
    "PartNumber": "1395T3013703",
    "ProductName": "ARBOK",
    "SerialNumber": "AR16PP1059",
    "Version": null,
    "Manufacturer": "Inventec"
  },
  "cpu": {
    "Maximum": 2,
    "details": [
      {
        "Socket": "CPU0",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      },
      {
        "Socket": "CPU1",
        "Manufacturer": "Intel(R) Corporation",
        "Model": "Intel(R) Xeon(R) Silver 4208 CPU @ 2.10GHz",
        "PPIN": "56060500FFFBEBBF",
        "MaxSpeedMHz": "4000 MHz",
        "CurrentSpeedMHz": "2100 MHz",
        "TotalCores": "8",
        "TotalThreads": "16"
      }
    ]
  },
  "mem": {
    "Maximum": 1,
    "DRAM_TOP": "000000100000000000000000",
    "TotalSystemMemorySize[GiB]": 32,
    "details": [
      {
```



```
        "Location": "CPU0_D0",
        "Manufacturer": "Samsung",
        "PartNumber": "M393A4K40BB2-CTD",
        "SerialNumber": "S00DA1080538327DB4",
        "Capacity": "32 GB",
        "OperatingSpeed": "2400 MT/s",
        "RatedSpeed": "2666 MT/s",
        "DeviceType": "DDR4",
        "RankCount": "2"
    }
]
},
"psu": [
    {
        "Location": "PSU1",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0103K042D7",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    },
    {
        "Location": "PSU2",
        "Manufacturer": "Liteon",
        "Model": "PS-2801-9L",
        "SerialNumber": "60CWN0105M019NE",
        "Firmware": "00.06.09",
        "MaxPower": "800W"
    }
],
"raid": [
    {
        "Type": "LSI Logic SAS3008 C0",
        "Firmware": "16.00.10",
        "BIOS": "8.37.00.00",
        "BIOS Date": "2018.04.04",
        "PCI id": "0000:5e:00:0",
        "Firmware Rev": "205",
        "MPT Rev": "10000a00"
    }
],
"net": [
    {
        "Bus": "0000:3d:00.1",
        "DEVID": "8086:37d2",
        "SYSID": "1170:37d2",
        "Manufacturer": "Intel",
        "Model": "Ethernet Connection X722 for 10GBASE-T",
        "Type": "PCIe",
        "PartNumber": null,
        "Serialnumber": null,
        "Firmware": "4.10 0x80001a64 1.2585.0",
        "LinkSpeed": "2.5GT/s",
        "LinkWidth": "x1",
```

```

        "Port": {
            "ID": "0000:3d:00.1",
            "PortName": "enp61s0f1",
            "MacAddr": "38:68:dd:51:fe:0d",
            "Speed": "1000Mb/s",
            "Driver": "i40e",
            "DriverVersion": "2.3.2-k",
            "MediaType": null,
            "LinkStatus": "yes"
        }
    },
    {
        "Bus": "0000:3d:00.0",
        "DEVID": "8086:37d2",
        "SYSID": "1170:37d2",
        "Manufacturer": "Intel",
        "Model": "Ethernet Connection X722 for 10GBASE-T",
        "Type": "PCIe",
        "PartNumber": null,
        "Serialnumber": null,
        "Firmware": "4.10 0x80001a64 1.2585.0",
        "LinkSpeed": "2.5GT/s",
        "LinkWidth": "x1",
        "Port": {
            "ID": "0000:3d:00.0",
            "PortName": "enp61s0f0",
            "MacAddr": "38:68:dd:51:fe:0c",
            "Speed": "1000Mb/s",
            "Driver": "i40e",
            "DriverVersion": "2.3.2-k",
            "MediaType": null,
            "LinkStatus": "yes"
        }
    }
],
"hdd": [
    {
        "Logical": "sda",
        "Manufacturer": "Seagate",
        "Model": "ST8000AS0002-1NA17Z",
        "SerialNumber": "Z84047X7",
        "Size": "8.00 TB",
        "Firmware": "AR15",
        "RPM": 5980,
        "LinkSpeed": "6.0 Gb/s"
    }
],
"ssd": [],
"nvme": [],
"gpu": []
}
[root@simonlinux dist]# ls hwinfo.json
hwinfo.json

```

```
[root@simonlinux dist]#
```