确定SSD驱动器的通电时间

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背景

"开机时间"是确定SSD寿命的重要指标。为了确定受影响的固态驱动器(SSD),您需要下载3个第允 许您查看加电时间(PoH)在某些情况下,型号#SSD。 在下面,您将找到有关从何处获取实用程序 以及如何使用这些实用程序的说明。

从何处获得公用事业

有4选择的不同实用程序rom取决于您的操作系统和需求。 请查看下表。

| 工具 | 适用的操作系统 | 工具源 |
|-------------|----------------------|----------------------------------|
| SmartMon工具 | Linux、Windows、VMware | https://sourceforge.net/projects |
| sa3 utils | Linux、Windows | http://sq.danny.cz/sq/sq3_utils. |
| | | https://kb.sandisk.com/app/ans |
| SanDisk工具 | Linux、Windows | detail/a_id/18565/~/lightning-ge |
| | | https://docs.broadcom.com/do |
| Storcli实用程序 | 所有操作系统 | 7.1410.0000.0000 Unified Sto |
| | | zip |

有关如何使用每个实用程序的步骤。

每个实用程序都需要一些在Linux、VMware和Windows中安装软件的知识。 安装前请务必阅读任 何自述文件。

适用于Windows的SmartMon工具 — JBOD模式

注意:如果使用RAID控制器,则无法通过Windows收集此数据

 5. 安装:转到上表中发布的下载链接并下载和安装smartmontools实用程序通过上述链接获取 smartctl Windows安装文件。执行设置文件:

smartmontools-7.1-1.win32-setup.exe 打开命令提示符转到文件夹:

C:\Program Files\smartmontools\bin

2. 检查驱动器固件版本:运行以下命令以获取目标驱动器的设备名称。

smartctl -scan

| C:\Progra | im F | iles\s | smartmontoo | ls\bin>smartctl | scan |
|-----------|------|--------|------------------------|-----------------|------|
| /dev/sda | -d | ata # | /dev/sda, | ATA device | |
| /dev/sdb | -d | ata # | /dev/sdb, | ATA device | |
| /dev/sdc | -d | scsi # | <pre># /dev/sdc,</pre> | SCSI device | |
| /dev/sdd | -d | scsi # | <pre># /dev/sdd,</pre> | SCSI device | |

[jbod windows smartmon fw 1]读取驱动器固件版本,如下所示:

| smartctl -i /dev/sdc | |
|-----------------------|--|
| C:\Program Files\smar | tmontools\bin>smartctl -i /dev/sdc |
| smartctl 7.1 2019-12- | 30 r5022 [x86_64-w64-mingw32-2016] (sf-7.1-1) |
| Copyright (C) 2002-19 | , Bruce Allen, Christian Franke, www.smartmontools.org |
| | |
| === START OF INFORMAT | ION SECTION === |
| Vendor: | SanDisk |
| Product: | LT1600MO |
| Revision: | C405 |
| Compliance: | SPC-4 |
| User Capacity: | 1,600,321,314,816 bytes [1.60 TB] |
| Logical block size: | 512 bytes |
| LU is resource provis | ioned, LBPRZ=1 |
| Rotation Rate: | Solid State Device |
| Form Factor: | 2.5 inches |
| Logical Unit id: | 0x5001e82002818248 |
| Serial number: | 42041928 |
| Device type: | disk |
| Transport protocol: | SAS (SPL-3) |
| Local Time is: | Mon Feb 04 15:54:19 2019 PST |
| SMART support is: | Available - device has SMART capability. |
| SMART support is: | Enabled |
| Temperature Warning: | Disabled or Not Supported |

[jbod windows smartmon fw 2]

3. 检查加电小时数: 安装后,您将在smartmontools软件包中使用"smartctl"实用程序。打开 CMD,转到smartmontools目录 并键入以下命令查找SSD列表:

smartctl.exe --scan

一次 确定要检查的SSD,然后在中键入以下两个命令 订单 获得所需的输出 (其中X是您要检查 的驱动器号��

smartctl -t short /dev/sdX - Wait 10 seconds before running the second command smartctl -l selftest /dev/sdX 目状"什会"时间 は10t 行 、 泣が目Dout的具新订马

寻找"生命"时间 从1st 行。 这将是PoH的最新记录。

:\Program Files\smartmontools\bin>smartctl --scan /dev/sda -d ata # /dev/sda, ATA device /dev/sdb -d scsi # /dev/sdb, SCSI device /dev/sdc -d scsi # /dev/sdc, SCSI device C:\Program Files\smartmontools\bin>smartctl -t short /dev/sdb smartctl 7.1 2019-12-30 r5022 [x86_64-w64-mingw32-2016] (sf-7.1-1) Copyright (C) 2002-19, Bruce Allen, Christian Franke, www.smartmontools.org Short Background Self Test has begun Use smartctl -X to abort test C:\Program Files\smartmontools\bin>smartctl -l selftest /dev/sdb smartctl 7.1 2019-12-30 r5022 [x86_64-w64-mingw32-2016] (sf-7.1-1) Copyright (C) 2002-19, Bruce Allen, Christian Franke, www.smartmontools.org === START OF READ SMART DATA SECTION === The first reord is the latest SMART Self-test log LifeTime LBA_first_err [SK ASC ASQ] Num Test Status segment Description (hours) number 1 Background short Completed 3883 2 Background short Completed 3 Background short Completed 3882 3880 .ong (extended) Self-test duration: 5000 seconds [83.3 minutes]

[jbod windows smartmon]

适用于Linux的SmartMon工具—JBOD模式

 安装:转到上表中发布的下载链接,下载并安装smartmontools实用程序。获取smartctl 安装 文件Linux版本。解除 安装 文件.

tar -zxvf smartmontools-7.1.tar.gz 转到文件夹:

smartmontools-7.1 按顺序在命令下运行。

./configure make make install

2. 检查驱动器固件版本: "sdb"是目标驱动器的设备名称。

smartctl -i /dev/sdb

[root@localhost ~]# smartctl -i /dev/sdb smartctl 6.5 2016-05-07 r4318 [x86 64-linux-3.10.0-957.el7.x86 64] (local build) Copyright (C) 2002-16, Bruce Allen, Christian Franke, www.smartmontools.org

=== START OF INFORMATION SECTION === Vendor: SanDisk Product: LT1600M0 Revision: C405 Compliance: SPC-4 User Capacity: 1,600,321,314,816 bytes [1.60 TB] Logical block size: 512 bytes LU is resource provisioned, LBPRZ=1 Rotation Rate: Solid State Device Form Factor: 2.5 inches 0x5001e82002818248 Logical Unit id: Serial number: 42041928 Device type: disk Transport protocol: SAS (SPL-3) Local Time is: Mon Feb 4 19:38:03 2019 CST SMART support is: Available - device has SMART capability. SMART support is: Enabled Temperature Warning: Disabled or Not Supported

[jbod linux smartmon fw]

3. 检查加电小时数(POH) 转到smartmontools目录,键入以下命令查找SSD列表:

esxcli storage core device list 确定要检查的SSD后,即可键入以下两个命令以获得所需的输出(其中X是您要检查的驱动器 盘符)��

smartctl -t short /dev/sdX - Wait 10 seconds before running the second command smartctl -l selftest /dev/sdX

这将是PoH的最新记录。 从1开始,st 行。 [root@localhost ~]# smartctl -t short /dev/sda smartctl 7.0 2018-12-30 r4883 [x86 64-linux-3.10.0-957.el7.x86 64] (local build) Copyright (C) 2002-18, Bruce Allen, Christian Franke, www.smartmontools.org

Short Background Self Test has begun Use smartctl -X to abort test [root@localhost ~]# smartctl -l selftest /dev/sda smartctl 7.0 2018-12-30 r4883 [x86 64-linux-3.10.0-957.el7.x86 64] (local build) Copyright (C) 2002-18, Bruce Allen, Christian Franke, www.smartmontools.org

The first one is the latest record === START OF READ SMART DATA SECTION === SMART Self-test log Num Test segment LifeTime LBA first err [SK ASC ASQ] Status Description number (hours) # 1 Background short Completed 6439 · [+ -6433

2 Background short Completed - [---1 # 3 Background short Completed 6433 - [--] # 4 Reserved(7) Aborted (device reset ?) 317 - [--]

+

-1

Long (extended) Self-test duration: 5000 seconds [83.3 minutes]

[root@localhost ~]#

[jbod linux smartmon]

用于ESXi的SmartMon工具 — JBOD模式

1. 安装: 转到上表中发布的下载链接,下载并安装smartmontools实用程序 获取smartctl ESXi 安装 文件。在ESXi主机上启用外壳和SSH。

| Navigator | 🔋 localhost.localdomain - Manage | | |
|----------------------|----------------------------------|---------------------------|-----------|
| → 🗒 Host | System Hardware Licensing | Packages Services Securit | y & users |
| Manage | b Ctart - Ctap C Destart | Defrech Actions | |
| Monitor | | Venesii 🙀 Acaona | |
| > R Virtual Machines | Name 🔺 🗸 🗸 | Description v | Status ~ |
| Storage | sfcbd-watchdog | CIM Server | Stopped |
| Networking | snmpd | SNMP Server | Stopped |
| | TSM | ESXi Shell | Running |
| | TSM-SSH | SSH | Running |
| | vmsyslogd | Syslog Server | Running |
| | vpxa | VMware vCenter Agent | Stopped |
| | xorg | X.Org Server | Stopped |

[jbod esxi smartmon安装]

通过ftp工具将文件"smartctl-6.6-4321.x86_64.vib"上传到ESXi主机"tmp"文件夹中。SSH到 ESXi主机。将ViB接受级别设置为CommunitySupported。

esxcli software acceptance set --level=CommunitySupported 然后安装软件包。

esxcli software vib install -v /tmp/smartctl-6.6-4321.x86_64.vib

2. 检查驱动器固件版本 SSH到ESXi主机。然后运行以下命令以获取目标驱动器的设备名称和固件版本。

esxcli storage core device list

naa.5001e82002818248

Display Name: Local SanDisk Disk (naa.5001e82002818248) Has Settable Display Name: true Size: 1526185 Device Type: Direct-Access Multipath Plugin: NMP Devfs Path: /vmfs/devices/disks/naa.5001e82002818248 Vendor: SanDisk Model: LT1600MO Revision: C405 SCSI Level: 6 Is Pseudo: false Status: on Is RDM Capable: true Is Local: true Is Removable: false Is SSD: true Is VVOL PE: false Is Offline: false Is Perennially Reserved: false Queue Full Sample Size: 0 Queue Full Threshold: 0 Thin Provisioning Status: yes Attached Filters: VAAI Status: unknown Other UIDs: vml.02000000000001e820028182484c5431363030

[jbod esxi smartmon fw] 检查加电小时数(POH) 转到smartmontools目录,通过键入

esxcli storage core device list

确定要检查的SSD后,可键入以下两个命令以获得所需的输出(其中 naa.xxx 是您要检查的驱 动器盘符��

/opt/smartmontools/smartctl -d scsi -t short /dev/disks/naa.xxx - Wait 10 seconds before running the second command /opt/smartmontools/smartctl -d scsi -l selftest /dev/disks/naa.xxx 从第1行寻找"Lifetime"小时。 这将是PoH的最新记录。

| [roo | t@localhost:~] /op | ot/smartmontools/ | smartctl -d scsi | -t short | /dev/disks/na | aa.500 | 1e82 | 0028182 | 48 |
|------|--------------------|-------------------|------------------|---|---------------|--------|------|---------|-------|
| smar | tctl 6.6 2016-05-1 | L0 r4321 [x86_64- | linux-6.5.0] (da | ily-201605 | 510) | | | | |
| Сору | right (C) 2002-16 | , Bruce Allen, Ch | ristian Franke, | www.smartm | ontools.org | | | | |
| Shor | t Background Self | Test has begun | | | | | | | |
| Use | smartctl -X to abo | ort test | | | | | | | |
| [roo | t@localhost:~] /or | ot/smartmontools/ | smartctl -d scsi | -l selfte | st /dev/disks | s/naa. | 5001 | e820028 | 18248 |
| smar | tctl 6.6 2016-05-1 | L0 r4321 [x86_64- | linux-6.5.0] (da | ily-201605 | (10) | | | | |
| Copy | right (C) 2002-16 | Bruce Allen, Ch | ristian Franke. | www.smartn | ontools.org | | | | |
| | | | ,, | | | | | | |
| | START OF READ SMAR | T DATA SECTION = | == | | | | | | |
| SMAR | T Self-test log | | | | | | | | |
| Num | Test | Status | segment | LifeTime | LBA_first_e | rr [Sł | ASC | ASQ] | |
| | Description | | number | (hours) | | | | | |
| # 1 | Background short | Completed | - | 2505 | | - [- | | -] | |
| # 2 | Background short | Completed | | 2409 | | - [- | 17 | -] | |
| | | | | an ann an | | | | | |
| Long | (extended) Self | lest duration: 29 | 600 seconds [493 | .3 minutes | 5] | | | | |

[jbod esxi smartmon]

Sg3_utils for Windows - JBOD模式

1. 安装 转到上表中发布的下载链接,下载并安装 sg3_utils 实用程序通过上述链接获取smartctl Windows安装文件。执行设置文件:

smartmontools-7.1-1.win32-setup.exe 打开命令提示符转到文件夹:

C:\Program Files\smartmontools\bin

2. 检查驱动器固件版本: 运行以下命令以获取目标驱动器的设备名称。



[jbod windows sg3_utils fw 1]读取驱动器固件版本,如下所示

smartctl -i /dev/sdc

C:\Program Files\smartmontools\bin>smartctl -i /dev/sdc smartctl 7.1 2019-12-30 r5022 [x86_64-w64-mingw32-2016] (sf-7.1-1) Copyright (C) 2002-19, Bruce Allen, Christian Franke, www.smartmontools.org === START OF INFORMATION SECTION === Vendor: SanDisk Product: LT1600MO Revision: C405 Compliance: SPC-4 User Capacity: 1,600,321,314,816 bytes [1.60 TB] Logical block size: 512 bytes LU is resource provisioned, LBPRZ=1 Solid State Device Rotation Rate: Form Factor: 2.5 inches 0x5001e82002818248 Logical Unit id: Serial number: 42041928 disk Transport protocol: SAS (SPL-3) Mon Feb 04 15:54:19 2019 PST Local Time is: SMART support is: SMART support is: Available - device has SMART capability. Enabled Temperature Warning: Disabled or Not Supported

[jbod windows sg3_utils fw 2]

3. 检查加电小时数: 转到 sg3_utils 目录,然后键入以下命令查找SSD列表:

^{sg_scan} 确定要检查的SSD后,可以键入以下内容g命令(其中X是您要检查的驱动器号):

```
sg_logs --page=0x15 pdX
查找""累积通电分钟数".
```

C:\Users\Administrator\Downloads\sg3_utils-1.45mgw64>sg_scan ST1000NX0423 CT05 PDØ [C] S4702TL2 PD1 SanDisk LT0400MO C405 42211160 PD2 SanDisk LT1600MO C405 42041928 C:\Users\Administrator\Downloads\sg3_utils-1.45mgw64>sg_logs --page=0x15 pd2 SanDisk LT1600MO C405 Background scan results page [0x15] Status parameters: Accumulated power on minutes: 144762 [h:m 2412:42] Status: background medium scan is active Number of background scans performed: 36750 Background medium scan progress: 1.13831 % Number of background medium scans performed: 36750

[jbod windows sg3_utils]

Sg3_utils for Linux - JBOD模式

1. 安装: 转到上表中发布的下载链接,下载并安装sg3_utils实用程序获取sg3_utils 安装 文件 Linux版本。解除 安装 文件.

tar -zxvf sg3_utils-1.45.tgz 转到文件夹"sg3_utils-1.45"。按顺序在命令下运行。 make

make install

2. 检查驱动器固件版本 "sdb"是目标驱动器的设备名称。

sg_logs --page=0x33 /dev/sdb [root@localhost ~]# sg_logs --page=0x33 /dev/sdb LT1600M SanDisk C405 No ascii information for page 0x33, here is hex: 00 33 00 07 c8 00 00 03 08 56 55 5f 50 41 47 45 53 00 01 03 08 01 02 03 04 05 06 07 08 00 02 03 08 10 2.0 09 0a 0b 0c 0d 0e 0f 10 00 03 03 08 12 2f 00 00 00 00 00 00 00 04 03 08 00 00 00 00 00 00 00 00 30 [truncated after 64 of 1996 bytes (use '-H' to see the rest)]

[jbod linux sg3_utils fw]

3. 检查通电时间确定要检查的SSD后,可以键入以下命令(其中X是要检查的驱动器号):

sg_logs --page=0x15 /dev/sdX 查找"累积通电分钟数"。 [root@localhost -]# sg_logs --page=0x15 /dev/sdb SanDisk LT1600M0 C405 Background scan results page [0x15] Status parameters: Accumulated power on minutes: 372254 [h:m 6204:14] Status: background medium scan is active Number of background scans performed: 3321 Background medium scans performed: 3321

[jbod linux sg3_utils.jpg]

用于Windows的Sandisk工具 — JBOD模式

 安装:转到上表中发布的下载链接,下载并安装sg3_utils实用程序通过上述链接获取smartctl Windows安装文件。执行设置文件

smartmontools-7.1-1.win32-setup.exe 打开命令提示符转到文件夹:

C:\Program Files\smartmontools\bin

2. 检查驱动器固件版本 运行以下命令以获取目标驱动器的设备名称。



[jbod windows sandisk fw]

3. 检查通电时间 要确定要检查的驱动器,请键入命令:

scli show all

确定要检查的SSD后,可以键入以下命令(其中X是要检查的驱动器号):

scli show diskx -S 查找"Total Power on Hours"。

C:\Program Files\SanDisk\scli\bin64>scli show all SanDisk scli version 1.8.0.12 Copyright (C) 2014 SanDisk 01/30/2019 18:30:57 Port Capacity State Boot DeviceSerial# Device Model SATA 1.00 TB Unknown Yes S4702TL2 ST1000NX0423 SAS 400.09 GB Good No 42211160 LT0400MO DISKØ SAS 400.09 GB Good No 42211160 SAS 1.60 TB Good No 42041928 DISK1 DISK2 LT1600MO Command Executed Successfully. C:\Program Files\SanDisk\scli\bin64>scli show disk2 -5 SanDisk scli version 1.8.0.12 Copyright (C) 2014 SanDisk 01/30/2019 18:55:39 Statistics Information for disk2 : 1 % ife Used : 39 Celsius Temperature Total Read : 164.96 TB Total Write : 275.10 TB Total Read Commands : 12052397070 Total Write Commands : 18756685157 Read Errors Program Events : 0 Background Read Events : 0 GList Count Lifetime Max Temperature : 73 Celsius Total Power on Hours : 2409 Command Executed Successfully.

[jbod windows sandisk]

适用于Linux的Sandisk工具 — JBOD模式

 1. 安装 转到上表中发布的下载链接,下载并安装sg3_utils实用程序获取scli 安装 文件Linux版本 。解压缩 安装 文件.转到文件夹:

Linux_1.8.0.12/generic/x86_64 运行以下命令,使"scli"可执行。

chmod +x scli

2. 检查驱动器固件版本 "sdb"是目标驱动器的设备名称。

./scli show /dev/sdb -a

[root@localhost x86_64]# ./scli show /dev/sdb -a
SanDisk scli version 1.8.0.12
Copyright (C) 2014 SanDisk
07/15/2020 15:41:10
Asset Information for /dev/sdb
.....
Vendor : SanDisk
Product ID : LT1600M0
Revision Level : C405
Serial No : 42062372
Part Number : 193a
WWN LUN : 5001e8200281d224
WWN Target : 5001e8200281d225
Command Executed Successfully.

[jbod linux sandisk fw]

3. 检查通电时间 确定要检查的SSD后,可键入以下命令(其中X是您要检查的驱动器号):

./scli show /dev/sdX -S 查找"Total Power on Hours"。 [root@localhost x86 64]# ./scli show /dev/sda -S SanDisk scli version 1.8.0.12 Copyright (C) 2014 SanDisk 07/10/2020 19:53:30 Statistics Information for /dev/sda : 6 % Life Used : 41 Celsius Temperature Total Read : 275.83 TB Total Write : 580.95 TB Total Read Commands : 23791125744 Total Write Commands : 29664369071 Read Errors : 0 : 0 Program Events Background Read Events : 0 GList Count : 1 Lifetime Max Temperature : 71 Celsius Total Power on Hours : 6436

```
Command Executed Successfully.
```

[jbod linux sandisk]

适用于Linux的SmartMon工具 — RAID模式

安装 您需要同时安装smartmontools和storcli实用程序来收集数据。转到上表中发布的下载链接,下载并安装smartmontools实用程序 获取smartctl 安装 文件Linux版本。解除 安装 文件.

smartmontools-7.1 按顺序在命令下运行。

./configure
make
make install

现在,转到上表中发布的下载链接,下载并安装storcli实用程序。确定要检查的驱动器,转到 storcli目录并键入命令:

storcli /c0/eall/sall show

查找设备ID(DID)。 设备ID将为 需要的。

[root@localhost smartctl]# storcli /c0/eall/sall show CLI Version = 007.0913.0000.0000 Jan 11, 2019 Operating system = Linux 3.10.0-957.el7.x86_64 Controller = 0 Status = Success Description = Show Drive Information Succeeded.

Drive Information :

 EID:Slt
 DID
 State
 DG
 Size
 Intf
 Med
 SED
 PI
 SeSz
 Model
 Sp
 Type

 252:1
 69
 Onln
 0
 222.585
 GB
 SATA
 SSD
 N
 S12B
 SAMSUNG
 MZ7LM240HMHQ-00005
 U

 252:4
 91
 JBOD
 372.611
 GB
 SAS
 SSD
 N
 S12B
 LT0400MO
 U

 252:5
 88
 JBOD
 1.455
 TB
 SAS
 SSD
 N
 S12B
 LT0600MO
 U

[raid linux smartmon fw 1]

2. 检查驱动器固件版本 以下命令中的"148"是目标驱动器的设备ID(DID)。而"sdc"是其设备名称。

smartctl -d megaraid,148 -i /dev/sdc [root@localhost ~]# smartctl -d megaraid,148 -i /dev/sdc smartctl 6.5 2016-05-07 r4318 [x86 64-linux-3.10.0-957.el7.x86 64] (local build) Copyright (C) 2002-16, Bruce Allen, Christian Franke, www.smartmontools.org === START OF INFORMATION SECTION === SanDisk Vendor: Product: LT0400M0 Revision: C405 SPC-4 Compliance: User Capacity: 400,088,457,216 bytes [400 GB] Logical block size: 512 bytes Logical block size: 512 bytes LU is resource provisioned, LBPRZ=1 Rotation Rate: Solid State Device Form Factor: 2.5 inches Logical Unit id: 0x5001e82002841758 Serial number: 42211160 Device type: disk Transport protocol: SAS (SPL-3) Local Time is: Mon Feb. 4 23:08:00 Mon Feb 4 23:08:06 2019 CST Available - device has SMART capability. Enabled Local Time is: SMART support is: SMART support is: Temperature Warning: Disabled or Not Supported

[raid linux smartmon fw 2]

3. 检查通电时间 确定要检查的SSD后,可键入以下两个命令以获得所需的输出(其中X是 您从步骤4获得的设备ID � ◆

注意:要使此功能正常运行,您需要确保并使用"**梅加赖德**'在命令中切换。 否则,它将不起作 用。

smartctl -d megaraid,N -t short /dev/sdX - Wait 10 seconds before running the second command smartctl -d megaraid,N -l selftest /dev/sdX

从1开始,st 行。 这将是PoH的最新记录。

| | Slt DID | State | DG | | Size | Intf | Med | SED | PI | SeSz | Model | | Sp | Тур | 2 |
|---|---|--|--------------------------------------|---|---|----------------------------------|-------------------------------|--------------------------------|----------------------|-------------------------------------|--|---------------------------------------|----------------|-----|-----|
| 252. | 1 60 | 0010 | | 222 | 505 CD | CATA | cen | NI | N | 5120 | CAMCUNG M77 | /I M240UMU0.00005 | | | 1 |
| 252: | 4 01 | 1800 | 0 | 272 | 503 OD | CAC | CCD | N | M | 5120 | TRADOMO M2/ | CH240HintQ-00005 | | | |
| 252: | 4 91 5 90 | 1800 | | 3/2. | 455 TE | CAC | SSD | N | N | 5120 | 17160000 | | | | |
| EID= DHS= JBad | Enclosur Dedicate =Unconfi | e Dev d Hot gured | ice Spa Bac | ID S are U J Onl | lt=Slo Good=U n=Onli | t No. nconf ne Of | DID igur fln= | =Dev: ed Go Offl: | ice ood ine | ID DO GHS=0 | i=DriveGroup ilobal Hotsp Interface |) bare | | | |
| ied=l ieSz: JGUn FSh | nedia Ty =Sector sp=Unsup ld=Confi | pe SE Size porte gured | D=Se Sp=S d UC shi | it E ipun iShld Lelde | ncrypt U=Up D =UnCor d Cpyb | ive D =Down figur ck=Co | rive T=T ed sl pyBa | PI= rans: hield ck C | ded BSh | tection F=F HSPSF Ld=Cop | on into Foreign hld=Hotspare byback Shiel | shielded ded | | | |
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| Copy | START OF | READ | SM/ | ART D | ATA SE | CTION | | | | | | | | | |
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| :opy :== : :MAR: !um ! 1 | T Self-t Test Descrip Backgro Backgro | und s | hort | Co Co | mplete mplete | d d | | | | - | 6204 6203 | | [- | - | |
| Copy SMAR Vum # 1 # 2 # 3 | T Self-t Test Descrip Backgro Backgro Backgro | und s | hort hort | C0 C0 C0 | mplete mplete | d d d | | | | - | 6204 6203 6198 | - | [- [- [- | - | |
| Copy SMAR Num # 1 # 2 # 3 # 4 | T Self-t Test Descrip Backgro Backgro Backgro Backgro | und sl und sl und sl und sl | hort hort hort | Co Co Co | mplete mplete mplete mplete | d d d | | | | - | 6204 6203 6198 6198 6198 | - | [- [- [- | | |

Long (extended) Self-test duration: 29600 seconds [493.3 minutes]

[raid linux smartmon]

注意:SmartMonTools在RAID中无法用于ESXi。sg3_utils和Sandisk工具在所有操作系统的 RAID中不工作。