

ID	Name	VAL	Wrst	Tresh	Raw	Health
1	Raw read error rate	100	100	62	0	OK
2	Throughput performance	100	100	40	227	OK
3	Spin-up time	106	100	33	1460288880...	OK
4	Number of spin-up times	100	100	0	448	OK
5	Reallocated sector count	100	100	5	0	OK
7	Seek error rate	100	100	67	0	OK
8	Seek time performance	100	100	40	0	OK
9	Power-on time	100	100	0	10	OK
10	Spin-up retries	100	100	60	0	OK
12	Power cycle count	100	100	0	128	OK
191	G-SENSOR shock counter	100	100	0	0	OK
192	Power-off retract count	100	100	0	68	OK
193	Load/unload cycle count	100	100	0	523	OK
194	HDA Temperature	220	100	0	25°C/77°F	OK
194	Minimum temperature	90	100	0	21°C/69°F	-
194	Maximum temperature	90	100	0	51°C/123°F	-
196	Reallocated event count	100	100	0	0	OK
197	Current pending sectors	100	100	0	1	OK
198	Offline scan UNC sectors	100	100	0	0	OK
199	Ultra DMA CRC errors	200	200	0	0	OK

Victoria ??? <http://hdd-911.com/> ????????????????????

Windows ? ???Win XP,Vista, 7 ,2000,2003, 2008 32?? ?????2008 ?????
 ??????Clone ???

?????

1. ????ATA ???? ,????,??,????,??.
 ??????????????????
 ?PIO?????? ATA??,???????
2. Smart ??(????USB ?? ,??? SSD Smart?????????????)
 Smart Test box (Smart test ??)
3. ???ECC ???? (?????) ???????MHDD
4. ????
 HPA ??
 USER and Master ATA Password ,??????
 Write Cache and Read Cache ??????
 Smart?????.

5. ?????????.

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<http://hdd-911.com/index.php?option=...art=0&limit=15>

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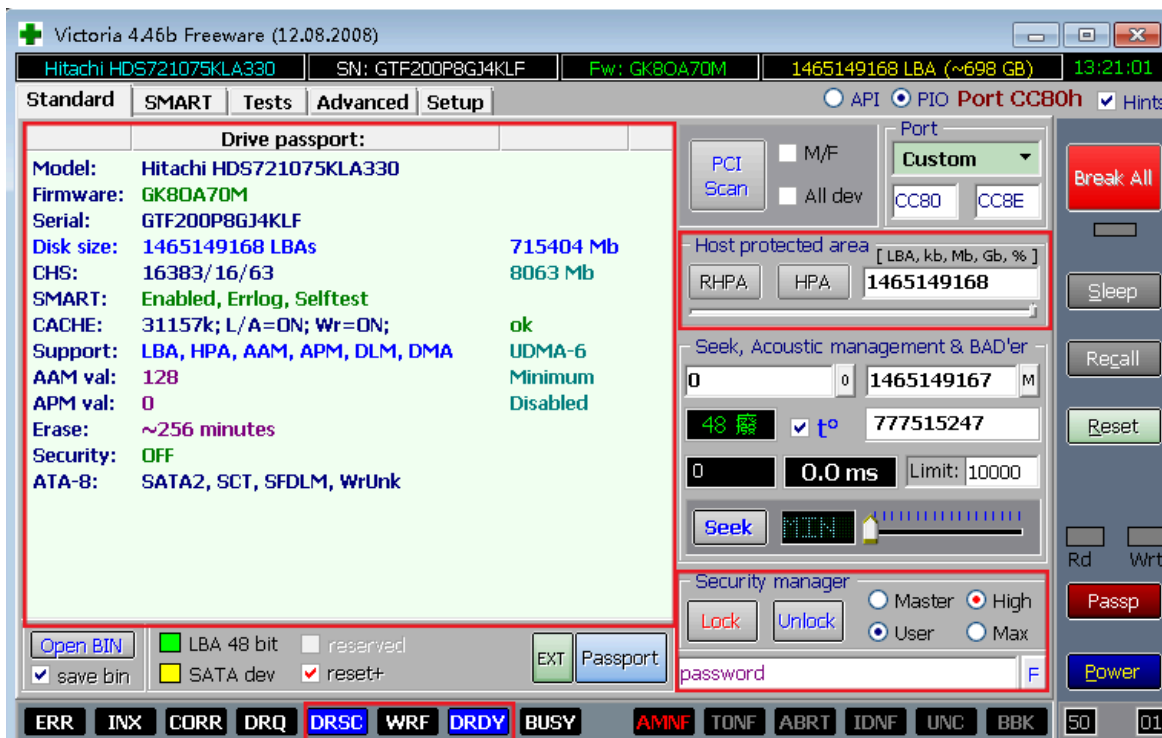
1.??PIO or API????Storage

PIO (Programmed input/output) ,Victoria ????? HBA I/O?????,????IDE ??? ,SATA ??????ATA ?SATA??.????
??,??Victoria DOS?. ??SATA ??ATA ????

API??Windows ????.

Windows API?????ATA Password ,?HPA ?ATA Command ?? ?????????ok.

2.?? Get Passport.



3. ?????????.

Drive Passport???????

Model:??

Serial:?? ?Windows API?????????.

Disk Size:?LBA (logical block area) ?Mb??, 1 LBA=512 Bytes

CHS:16383* 16 * 63= 16514064 (LBA)=8063MB ??? ??????????,???????????.
SMART:?????
Cache:??Cache ??,????? ,HDD ?Embedded os ?????? dram .?????????????Cache??.
Support:LBA????(??8GB HDD ???LBA) ,HPA ,AAM,APM ??????

AAM:Automatic acoustic management (?????) ??????????: ?? (0x80 - 0xFE) 128-254
???254 ??????????.?????????Access Time.
Seagate ????????AAM?????

APM:Advanced power management ?????? ?? (0x00 - 0xFF) 0-254 ,0?????, 255 ???
APM??3.5?????.?????2.5 ?? ??2.5???Park?. Park??HSA ??????????????.
???HSA ????,?????????????????????.???OS??(????)??.
Victoria ??? APM .????????? HDD Scan?????
????APM??PM (Power management)
APM?????????????

ERASE:?ATA ??????????
Security:????ATA ??
ATA-8:ATA 8??

??????? AAM ?APM ????????????

<http://www.osslab.org.tw/Storage/Software/Tools>

HPA
http://www.osslab.org.tw/Storage/Data_Recovery/Example/capacity

- ??
- 1.http://en.wikipedia.org/wiki/Automat...tic_management
 - 2.<http://www.metamuse.net/2009/03/notebook-hardisk.html>
 - 3.<http://phorum.study-area.org/index.p...c,61540.0.html>

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<http://translate.googleusercontent.c...c66fjk1aWme0sA>