SCSI TOOLBOX, LLC New Features in STB Suite version 8.1

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Bug Fixes and Enhancements

1. New Aladdin SRM package greatly simplifies the install process. Now only one Aladdin driver is needed for all operating systems and environments (networked, remoted, etc)

2. Aladdin Admin Control Center (ACC) gives simple view of key status and gives one point to configure network settings, free stuck licenses, etc.

Simply use your internet browser and point to <u>http://localhost:1947</u> to see all STB Keys on your system(s), including networked keys. Here is an example showing a network key on a license server:

HASE	HASP License Manager Admin Control Center												
					HASP Ke	eys availabl	le on HA	M					
Administration													
Options	#	Location	Vendo	r HAS	P Key ID	Key Type			Version	Sessions	Actions		
HASP Keys	1	Local	74276			HASP SL		—	2 1.40	-	Features S	essions	
Products	2	<u>HP-64</u>	74276			HASP HL Ne	tTime 10		3.21	-	Browse	Net Features	
Features												Display the feat	ures
Sessions				Net Fe	atures of HASP [•]	1646500067	(Vendo	or: 7427	'6) at HP-6	64			_
Update/Attach													_
	#	Feature I	D Lo	cation	Access	Counting	Logins	Limit	Detached	Restrictions	Session	s Actions	ιT
Access Log Configuration	1	0	A H	P-64	Loc Net Display	Station	-	10	-	Perpetual		- Browse	1
Diagnostics	2	1	А н	P-64	Loc Net Display	Station	-	4	-	Perpetual		- Browse	1
Help	3	2	A H	P-64	Loc Net Display	Station	-	4	-	Perpetual		- Browse	1
About	4	3	<u>₿</u> <u>⊞</u>	P-64	Loc Net Display	Station	-	4	-	Perpetual		- Browse	1
	5	4	в н	P-64	Loc Net Display	Station	-	4	-	Perpetual		- Browse	1
		1											1
												<u>Help</u>	Тор

You can see the number of allowed sessions and attached sessions, etc.

3. Calls to Aladdin HASP unlinked in DTB

This allows your DTB applications to run without a HASP key connected as long as no DTB functions are called.

4. New Device Discovery process

Achieves higher accuracy and correlation between Windows Device Manager, STB, DMM, BAM, and DTB device names and views.

5. DMM Seek commands

The SEEK commands have been replaced with Single-Block READ commands to allow SEEK tests to be run on SATA drives.

STB ("Original Mode") new features

1. New SATA Commands

SCSI Toolbox32	10		
<u>File A</u> dapter <u>Options</u> <u>Disk</u> <u>T</u> ape <u>J</u> ukebox	ATA/SATA SAF-TE / SEP A	$\operatorname{Adv}_{\operatorname{anced}}$ Tests Bus Resets Bus Analyzer	Buffer Scripts and Sequences
Bite Adapter Options Disk Tape Jokebox Help Target 0: Not Available Target 1: Not Available Target 2: Not Available Target 2: Not Available Target 3: Not Available Target 4: Not Available Target 5: Not Available Target 5: Not Available Target 6: Not Available Target 7: Not Available Target 7: Not Available	Commands Vests SATA Firmware Download ATA Command Sequencer	View IDENTIFY data View SMART data View SMART Self-Test Logs View & Set Features (WCE, ACU) Send User Defined Commands File Brows Clear File View Fil Log Performance Data Send "A" to COM1: on Error	New SATA Command features
	Read C	apacity	

2. SATA SMART Self-Test Logs

This command lets you view and save the results of all SMART Self-Tests on a per-drive basis.

SMART Self-Test Log Data	Devices
<pre>text for the set of the set</pre>	Select a SATA drive

3. SATA Features Display and Change

This command will display all of the SATA FEATUREs which are available on a selected disk, and will allow any available FEATURES to be changed, set or reset via a simple menu:

SESI Toolbox32	
Click on a device in the Devices list to view or change its FEATURES settings FEATURES Information WDC WD8008B-00JHC0, S/N:WD-WCAM90326364, FW:05.01C05 Write Cache © Enabled © Disabled Read Look Ahead © Enabled © Disabled Acoustic Management © Enabled © Disabled © Not Supported Advanced Power Management © Enabled © Disabled © Not Supported Advanced Power Management © Enabled © Disabled © Not Supported Beautry The Beautry The Enabled © Disabled © Disabled © Not Supported Beautry The Beautry The Enabled © Disabled © Disabled © Not Supported Beautry The Beautry The Beautry The Beautry Disabled © Disabl	
Click on a drive to display or change its features OK Make All Changes	

If a FEATURE from the SATA specification is enabled in the selected drive it will be highlighted in BLUE and the current setting will be displayed showing if the FEATURE is Enabled or Disabled. If there is a value associated with a given FEATURE that value will also be displayed.

You can change any FEATURE setting by clicking on the setting you desire. When you do this the FEATURE color will change to **RED** indicating that you have modified the setting but have not yet saved the change.

ck on a device in the Devices list to y	view or change its EE/	TURES settings		
FEA	TURES Information			
VDC WD800BB-00JHC0, S/N:WD-V	VCAM9D326364, Fw	:05.01C05		
Write Cache 🕤 Enabled 🕤 Dis	abled	ST		
- Read Look Ahead Enabled Disabled				
- Acousitic Management	🕆 Enabled 💿 Disab			
Power Up In Standby C E able	d 💿 Disabled	When you shares a feature by station		
- Advanced Power Management	🔿 Enabled	Enabled or Disabled the Feature color		
	Enabled C Disat	will change from Blue to Red to indicate		
Write-Read-Verify		you have onunged it.		

To save the change you must click the "Make All Changes" button. Once the changes have been written to the drive they will be re-read and displayed.

If your selected drive does not support any FEATURES the non-supported FEATURES will be displayed in a BLACK font. Which FEATURES are supported or not is up to the drive Vendor and is not changeable.

4. New SATA Tests

Several new SATA-Specific tests have been added:

SCSI Toolbox32				
File Adapter Options Disk Tape Jukebox	ATA/SATA SAF-TE / SEP Adva	anced Tests Bus Resets Bus Analyzer	Buffer	Scripts and Sequences
Help	Commands 🕨			
	Tests	Execute SMART Self-Test		The second second
Scan Bus Scan System	SATA Firmware Download	Drive Confidence 1 (Quick Test)	E.	Three new
Target 0: Locked	ATA Command Sequencer	Drive Confidence 2 - (Long Test)		SATAtests
		Error Logging :	÷.	
Target 1: Locked		File Brow	se	

5. Execute SMART Self-Test

This test will let you run any of the various types of SATA SMART Self-Tests. As shown – first select the drive you want to run the Self-Test on

Fest Type Short Self-Test Off-line mode Extended Self-Test Off-line mode Conveyance Self-Test Off-line mode Selective Self-Test Off-line mode	Short Self-Test Captive mode Extended Self-Test Captive mode Conveyance Self-Test Captive mode Selective Self-Test Captive mode
Short Test Time = Minul Extended Test Time = Minul Conveyance Test Time = Minul Self Test Progress: Self-Test has be	ttes ttes
- Results	

The approximate times that each of the different types of self tests will take to complete will be displayed.

Short Self-Test Extended Self- Conveyance Self- Selective Self-1	Off-line mode C Sho Fest Off-line mode C Extr elf-Test Off-line mode C Cor fest Off-line mode C Sek = 1 Minutes	ort Self-Test Captive mode ended Self-Test Captive mode aveyance Self-Test Captive mode ective Self-Test Captive mode	WDC WD8008B-00JHC0 ST3160023A ST3750330NS ST31000340NS	
Extended Test Time Conveyance Test Time Self Test Progress: Results Model Number = S	= 174 Minutes = 2 Minutes Self-Test has been running \$73750330NS	Once you select a drive the d specific test parameters wil shown	lrive- li be	
OK	Start Test	Save Re:	sults to File	

Now select which of the available types of Self-Tests you want to run in the "Test Type" area. Once you have selected the type of test click "Start Test" to begin the test process.



As the Self-Test runs the start time will be displayed in the Results window and the Self Test Progress bar will increment.

Test Type Short Self-Test Off-line mo Extended Self-Test Off-line Conveyance Self-Test Off	de C Short Self-Test Captive mode e mode C Extended Self-Test Captive mode -line mode C Conveyance Self-Test Captive mode	Devices WDC WD800BB-00JHC0 ST3160023A ST3750330NS ST31000340NS
Progress is Shodisplayed as Extend the test runs.74 Conversion Control Test Time = 2 Self Test Progress: Self-Te	Minutes Minutes Minutes Minutes est has been running for 00 Hours 00 Minutes	
Results Model Number = ST375033 Serial Number = Starting Self-test at M Test will run for 1 min	0NS 3QK03TJJ on Jul 20 08:43:57 20090 utes	
	Abort Test Save Rest	ults to File

Once the test has completed the results will be filled in to the Results window:

┌─ Test Type		Devi	ces
Short Self-Test Off-line mode	Short Self-Test Captive mode	WDC WD800BB	-OCHCO
C Extended Self-Test Off-line mode	C Extended Self-Test Captive mode	ST3750330NS	
C Conveyance Self-Test Off-line mod	de 🔘 Conveyance Self-Test Captive mode	ST31000340NS	
O Selective Self-Test Off-line mode	C Selective Self-Test Cantive mode		
Short Test Time = 1	Status and end time of test are displayed - if an error occurs it		
Conveyance Test Time = 2	een running for 100 Hours 101 Innutes		
Conveyance Test Time = 2 Self Test Progress: Self-Test has b Results Mode1 Number = ST3750330NS	een running for 100 Hours 101 Innutes		
Conveyance Test Time = 2 Self Test Progress: Self-Test has b Results Model Number = ST3750330NS Serial Number = 3	een running tor 100 Hours 101 Innutes		
Conveyance Test Time = 2 Self Test Progress: Self-Test has b Results Model Number = ST3750330NS Serial Number = 3 Starting Self-test at Mon Jul Test will run for 1 minutes	een running for UU Hours UI linutes		
Conveyance Test Time = 2 Self Test Progress: Self-Test has b Results Model Number = ST3750330NS Serial Number = 3 Starting Self-test at Mon Jul Test will run for 1 minutes Self-test finished at Mon Jul	will be noted here een running for www.ensymbol Hours www.ensymbol PQK03TJJ PQK03TJJ . 20 08:43:57 20090		
Conveyance Test Time = 2 Self Test Progress: Self-Test has b Results Model Number = ST3750330NS Serial Number = 3 Starting Self-test at Mon Jul Test will run for 1 minutes Self-test finished at Mon Jul	will be noted here een running for [00] Hours [01] Inutes eqx003TJJ 20 08:43:57 2009D 20 08:45:04 2009D 1		

You may view the results of all self-tests which have run on a given drive by using the

ATA/SATA->Commands->View SMART Self Test Logs

function:

a scs Toolbay32	
ATA/SATA SMART Self-Test Logs	×
TA/SATA SMART Self-Test Logs Click on a device in the Devices list to view it's SMART Self-Test Log Data Model Number = ST3750330NS Serial Number = 30K03TJJ This drive has 2 SMART self-test log entries Log Entry #0 - Content of the LEA Field = 0x01 Execute SMART Short test imediately in off-line mode - Self Test Execution Byte = 0x00 Previous self-test completed without error or no self-test has - Life Timestamp (LSB) = 0x02 - Power-on hours when this test was run = 719 - SelfTest Failure checkpoint byte = 0x09 - Failing LEA (7:0) = 0x00 Command	Devices WDC WDS00BB-00JHC0 ST3160023A ST37003040NS ST31000340NS
- Failing LBA (23:16) = 0x00 - Failing LBA (27:24) = 0x00 - LBA where error occurred = 0x00 (0) Log Entry #1 - Content of the LBA Field = 0x01	
OK. Save Results to File	
GoToMeeting	

6. SATA Drive Confidence Test #1 (Quick QC Test)

This new test will execute a series of test steps to give a quick idea of drive health and functionality. Each test step which will be run is displayed in the Test Description area. As the test runs each test step will indicate whether it passed or failed, and detailed results will be displayed in the Test Status/Results display area:



Select the drive to test. Click "Start Test" to begin the test.



You may save the test results to a text file. A default file name is created from the drive type and serial number, or you may give any name you want to the file.

Test Descriptor This test will		
rest Description - This test Will :		
Precord SMART data	-Head data at the beginning, middle, and end of the drive	ST3160023A
Record SMART Self-Test Logs	-Write data at the beginning, middle, and end of the drive	ST3750330NS
Measure Read Performance	Execute 10,000 Random Reads	ST31000340NS
Pricesure riedu i eneminance		
Test Status/Results		
- Failing LBA (27:24) = 0x00		
-LBA where error occurred = 0x0	10 (0)	
HA 2 Target 0 Lun 0 ST375033 ONS	R\$03	
Reading 100MB from start of disk . Finished Reading 100MB from start of Reading 100MB from middle of disk . Finished Reading 100MB from middle Reading 100MB from end of disk Finished Reading 100MB from end of Starting Random Read Test - 10,000 ****** End of ATA Quick QC Test ****	f disk Transfer rate = 61.58 MB/sec of disk Transfer rate = 60.98 MB/sec disk Transfer rate = 62.06 B / sec reads eads ******	name based on al number will be Save Results to to save
OK Chart I	Cours Double to The Line Double 19	ST 3750330N/30K03T H-0.0CL og lyk

7. SATA Drive Confidence Test #2

This test also runs a sequence of test steps like Confidence Test #1 – just longer and more detailed.

ATA/SATA Drive Confidence Test	
Test D scription This test will: Record SMART data Record SMART Self-Test Logs Execute SHORT EXTENDED CONVEYANCE SELECTIVE SMART Self-Test Read test at beginning, middle, end of the drive Short Test Time = 1 Extended Test Time = 174 Conveyance Te Self-Test has been running for Hours Minutes Test Status/Results SATA Disk Confidence more detailed disk to functions the same as of	-Write test at beginning, middle, end of the drive -Execute random seek/reads for 5 minutes -Read SMART data -Record SMART Self-Test logs est Time = 2 Minutes Static
OK Start Test Destructive Testing	Save Results to File ST3750330N-3QK03TJJ-ConfidenceLog.txt

8. SATA Command Sequencer

The SATA Command Sequencer is a quick way to issue any ATA command to a drive, capture and view any data returned, and to build a list or sequence of commands which may be issued/re-issued. You can also use the Command Sequencer to quickly create a Disk Command Compliance test.

SCSI Toolbox32	
Eile Adapter Options Disk Tape Jukebox ATA/SATA SAF-TE / SEP Advanced Tests Bus Resets Bus Analyzer Help Commands Image: Comman	Buffer Scripts and Sequences
Scan Bus Scan System Tests SATA Firmware Download SATA Firmware Download Target 0: ST375033 0NS Versior ATA Command Sequencer Print Reports	
ATA Command Sequences	×
Command Results	
Clear Save to File Command Entry Execute View CDBs OO 00 00 00 00 00 Data Length: 512 C Data Out © Data In Add This CMD	
Clear Options Save to File Load from File Load BAM File	
OK Load CDB File	

There are two ways to send a command. One is to use the "**View CDB's**" button to display a list of all available commands. These commands are taken from the same text file which the ATA User Defined

Command feature uses. You can create your own custom command files if you wish – see the documentation on ATA User Defined commands for instructions how.

Using the **View CDB's** button will display this window where you may select a command by doubleclicking on it. When you double-click a command it will be copied into the **Command Entry** window.

Scan System	Available Commands	×	
U: 513/5033 UNS ht = 732574 MB	Command Name	CDB Butes	
1: NATA Comman	00 - NO OP 03 - CFA REQUEST EXTENDED ERROR		X
2: N - Command Re 3: N 4: N 5: N 6: N	28 - DEVILE RESET 20 - READ SECTOR 24 - READ SECTOR 25 - READ DMA EXT 26 - READ DMA QUEUED 27 - READ NATIVE MAX A 29 - READ MULTIPLE EXT 27 - READ LOG EXT 30 - WRITE SECTOR(S) 34 - WRITE SECTOR(S) EXT 35 - WRITE DMA EXT 36 - WRITE DMA QUEUED EXT 37 - SET MAX ADDRESS EXT	Ible-click 0 00 00 00, 20 ible-click 0 00 E0, 24 and to 0 00 E0, 24 0 00 E0, 24 0 00 E0, 25 0 00 E0, 26 0 00 E0, 26 0 00 E0, 27 0 00 E0, 27 0 00 E0, 27 0 00 E0, 27 0 00 E0, 30 0 00 00 E0, 30 00 01 00 00 E0, 33 00 01 00 00 E0, 35 00 01 00 00 E0, 37	Data Length = Bytes ap Data Bytes p On Error
7: 1	38 - CFA WRITE SECTORS W/OUT ERASE 39 - WRITE MULTIPLE EXT	00 00 00 00 00 E0, 38 00 01 00 00 00 E0, 39 ✓ Close	er Save to File
Command En	try		
J20 - READ Se	ector(s) Execute		s:
Commanc t	the command you selected is copied here to execute	Clicking Execute will issue the command	Add This CMD

Once a command is in the **Command Entry** window clicking the **Execute** button will issue the command.

The results of the command (Task Register values) and the number of data bytes specified in the **Options->Results Data Length** window will be displayed in the Command Results window. The command will also be copied into the **Command History** window for later sequencing.

Lommand Sequencer			X
ommand Results 20 - READ Sector(s),1 20 - READ S Command Sent:	SECTOR (S)	Options Results Data	a Length = Bytes
00 01 00 00 00 E0 20 Task Registers: 00 01 00 00 00 E0 50 Data Bytes:		Swap D	ata Bytes Error
00 00 00 00 00 00 00 00	The results of sending the command are shown here		
		Clear	Save to File
ommand Entry		1	
0 01 00 00 00 E0 20	Data Length: 512 C Data Out 📀	Data In Ad	dd This CMD
Command History			
20 - READ Sector(s),1 20 - READ SECTOR(S)	Clear	1	
	and are also added to the History Window	2	



In addition to using the **View CDB's** button to specify a command you can also simply enter the first few characters of the command name (from your command list) in the **Command Entry** window. In the example below we enter "E5" and the sequence will look for the first occurance of "E5" in the command file. When it finds a command that matches it will copy the full command to the **Command Entry** window.

ormand Besults	Cotions
uninana results	Results Data Length =
00 01 00 00 00 E0 50	A Butes
Data Bytes:	Jo Dytes
UU UU UU UU UU UU UU UU EC IDENTITEN DEUICE I EC IDENTITEN DEUICE	I Swap Data Bytes
EC - IDENIIFI DEVICE,I EC - IDENIIFI DEVICE Command Sont.	📊 🔲 Stop On Error
Task Registers.	
00 00 00 00 A0 50	
Data Bytes:	
5A OC FF 3F 37 C8 10 00	
E5 - Check Power Mode,1 E5 - CHECK POWER MODE	
Command Sent:	
00 00 00 00 A0 E5	
Task Registers:	
00 FF 00 00 00 E0 50	
Commond Failur	Llear Save to File
	ai
N Eucoute View CDBs	
-bl PN Execute View CDBs	
-51 // Execute View CDBs	Jut Data In Add This CMD
Execute View CDBs	Dut Data In Add This CMD
Image: State State Image: State State State View CDBs 00 00 00 00 A0 E5 Data Length: 0 O Data C Command: ory 00 00 DEAD CECTORICS 0	Dut Data In Add This CMD
Execute View CDBs DO 0 00 00 A0 E5 Data Length: 0 O Data C Commandus ory 20 DEAN DEVICE	Dut Data In Add This CMD
Image: State State State Image: State State State View CDBs D0 00 00 00 A0 E5 Data Length: 0 Data C Commands ory 0 00 A0 E5 Data Length: 0 Data C 20 DEEN ory 0 DEEN ory 0 C 20 DEEN off 0 DEEN Output: C 20 DEEN off 0 DEEN C 20 DEEN 0 DEEN C DEEN 20 DEEN 0 DEEN C DEEN 20 DEEN 0 DEEN DEEN DEEN	Jut
Execute View CDBs D0 00 00 00 A0 E5 Data Length: 0 Data C Commands ory 0 00 A0 E5 Data Length: 0 Data C Commands ory 0 00 A0 E5 Data Length: 0 C Data C 20 DDEN 0 00 A0 E5 Data Length: 0 C Data C 20 DDEN 0 0 0 A0 E5 Data Length: 0 C Data C 20 DDEN 0 0 0 0 0 0 0 0 20 DDEN 0 0 0 0 0 0 0 20 DDEN 0 0 0 0 0 0 0 20 0 0 0 0 0 0 0 0 20 0 0 0 0 0 0 0 0 20 0 0 0 0 0 0 0 0	Jut
Execute View CDBs 00 00 00 00 A0 E5 Data Length: 0 Data C Commandic ory 00 00 00 A0 E5 Data Length: 0 Data C 20 DEAN 2000 00 00 A0 E5 Data Length: 0 Data C 20 DEAN 2000 00 00 A0 E5 Data Length: 0 Data C 20 DEAN 2000 00 00 A0 E5 Data Length: 0 Data C 20 DEAN 2000 00 00 A0 E5 Data Length: 0 Data C 20 DEAN 2000 00 00 A0 E5 Data Length: 0 20 DEAN 2000 2000 2000 2000 2000 2000 20 DEAN 2000 2000 2000 2000 2000 20 DEAN 2000 2000 2000 2000 20 DEAN 2000 2000 2000 2000 20 DEAN 2000 2000 2000 2000 20	Dut Data In Add This CMD
Execute View CDBs Commances on Commances o	Dut Data In Add This CMD
Execute View CDBs 20 0 00 00 00 A0 E5 Data Length: 0 Data C Commands onv 20 DEN JÉVICE: EC-IDENTIFY DEVICE Command name from your list, when you press "Enter" that command will be looked up and ave to le issued.	Dut Data In Add This CMD
Execute View CDBs 00 00 00 00 A0 E5 Data Length: 0 Data C Commands org 20 DEAN JÉVICE? E5 Data Length: 0 Data C Commands org 20 DEAN JÉVICE? E5 Data Length: 0 Data C Commands org JÉVICE? E5 Data Length: 0 Data C Commands JÉVICE? E5 Data Length: 0 Data C Commands JÉVICE? E5 Data Length: 0 Data C You may also type in the first few characters of a bio Command name from your list, when you press Tenter" that command will be looked up and ave tole issued. If the command is not found in your list an errord frorfile If the command is not found in your list an errord from the file	Jut Data In Add This CMD
Execute View CDBs D0 00 00 00 A0 E5 Data Length: 0 Data C Commance org 20 DEAN JEVICE? EFADERNTPOEVICE Clear You may also type in the first few characters of a command name from your list, when you press "Enter" that command will be looked up and ave to le issued. If the command is not found in your list an error method will be displayed. will be displayed.	Jut Data In Add This CMD
Execute View CDBs The command is not found in your list an error from file Will be displayed.	Jut Data In Add This CMD
Execute View CDBs 20 0 00 00 00 A0 E5 Data Length: 0 Data C Command a view of the first few characters of a view Course of the course of the first few characters of a view Course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of a view Course of the course of the first few characters of the course of the course of the first few characters of the course of th	Jut Data In Add This CMD
Execute View CDBs 20 0 00 00 00 A0 E5 Data Length: 0 Data C Command a view of the first few characters of a view of the command name from your list, when you press "Enter" that command will be looked up and ave to le issued. If the command is not found in your list an error profile will be displayed.	Dut Data In Add This CMD

Now – to send sequences of commands you simple select all commands in the **Command History** window:

					Exe	ecute View CDBs
00	00 0	0 00	00	40 E5	Data L	ength: 🚺 🔿 Data Out 💿 Data In 🔤 Add This CMD
EC+I E5+0	DENTIFY Check Pow	DÉVICE,1 ver Mode,1	EC - IDEN E5 - CHE	ITIFY DEÝII CK POWEF	CE I MC	You can select all of the commands in the History Window, then click "Execute" to issue the sequence of commands

Once the commands are selected click the **Execute** button and the sequence of commands will be issued at full system speed.

ATA Command Sequencer

ommand Results 00 00 00 00 00 A0 EC	Options Results Data Length =
Task Registers:	8 Bytes
00 00 00 00 00 A0 50	📃 🔚 Swap Data Bytes
Data Bytes:	Stop On Error
5A OC FF 3F 37 C8 10 00	
ES - Check Power Mode,1 ES - CHECK POWER M	IUDE
Lommand Sent:	
Took Degisters	
100 FF 00 00 00 F0 50	
E5 - Check Power Mode 1 E5 - CHECK POWER N	IDE
Command Sent:	
00 00 00 00 00 A0 E5	
Task Registers:	
00 FF 00 00 00 E0 50	- F3-
Command Entry	The selected commands will be
NExecute	executed as quickly as the
	system can issue them the
00 00 00 00 00 A0 E5 Data Lengt	h results are displayed. Note that
Command History	the re-issued commands will be
20 - READ Sector(s),1 20 - READ SECTOR(S)	added into the History Window
EC - IDENTIFY DÉVICE, 1 EC - IDENTIFY DÉVICE	
25 - Check Power Mode,1 E5 - CHECK PUWER MU	
20 - READ Sector(s),1 20 - READ SECTOR(S)	-
EC - IDENTIFY DÉVICE, 1 EC - IDENTIFY DÉVICE	Cause to Eile
-5 - Check Power Mode,1 E5 - CHECK POWER MC	Save to hie
	Load from File
	Load BAM File

You may **save** the list of commands from the **Command History** window to a file. You can then **load** the **Command History** window from that file at any time to re-issue your command sequence.



00 00 00 00 00 A0 E5		Results Data	Length =
Task Registers: 00 FF 00 00 00 E0 50 E5 - Check Power Mode,1 E5 Command Sent: 00 00 00 00 00 A0 E5 Task Registers:	- CHECK POWER MODE	8 B	lytes a Bytes irror
20 - READ Sector(s),1 20 - 1 Command Sent:	READ SECTOR(S)		
00 01 00 00 00 E0 20 Task Registers: 00 01 00 00 00 E0 50 Data Bytes: 00 00 00 00 00 00 00 0 Command Entry 00 01 00 00 00 E0 Command History E5 - Check Power Mode,1 E5 - CHECK 20 - READ Sector(s),1 20 - READ SECT	For a quick command complian 1. Create a customer file of com 2. execute each command one a 3. Save the History file Now to run a command complian simply load your compliance hist the saved file, select all command History Window, and click Exe	ce test: mands it a time nce test ory from ds in the ecute.	Save to File
	Load from File		

9. SATA Firmware Download

Use this command to download vendor-supplied firmware into a disk drive.

an Bus S Target 0: Capacitu Target (N	Ican System SATA Firmware Download Print Reports Safe JukeBox ST375033 0NS Versior Versior Firmware Download F732574 MB Firmware Download Firmware Download	×
t Target	Firmware File Name: Drive Selection	
Target	Total # of Segments = : ST3160023A ST3750330NS	
Target	Current Segment # = : ST31000340NS	
Target	Download Progress:	
Target	Download Status:	
Target		
	OK Start Download Save Results to File SAT Download	
E.c.		

10 – Lock Boot Drive Option

This new options lets you protect your boot drive. Access from the STB Original Options menu:



BAM new Features

Save BAM capture data to a Spreadsheet file

This new feature lets you send data to colleagues or coworkers who do not have their own copy of BAM.



This choice will write all of the BAM capture data to a comma-delimited (.csv) text file. This type of file can be opened by any spreadsheet program or you may also open these files with any text editor.

Reading the file is simple – to open it with a spreadsheet program such as Microsoft Excel simply double-click on the file using Explorer:

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Here is an example of how Excel will display our BAM data:

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19	16 0:	:0:0:0	CDB	Write (10)	2A 0	0 00 03 0D 1B 00 00 04 00	10 Bytes	146 us	7/20/2	009 9:46	clas	spnp			
20	17 0:	:0:0:0	CDB	Write (10)	2A 0	0 01 33 DA 07 00 00 04 00	10 Bytes	38 us	7/20/2	009 9:46	clas	spnp			
21	18 0:	0:0:0	Data Out		68 6	2 69 6E 00 00 00 00 00 10 00 00	2048 Bytes	162 us	7/20/2	009 9:46					
22	19 0:	:0:0:0	Data Out		6F 6	E 4F 72 64 65 72 00 E0 FF FF FF	2048 Bytes	138 us	7/20/2	009 9:46					
23	20 0:	:0:0:0	CDB	Write (10)	2A 0	0 01 33 DA 0B 00 00 10 00	10 Bytes	69 us	7/20/2	009 9:46	clas	spnp			

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General: 303.972.2072

DMM (Disk Manufacturing Module) New Features & Tests

Several new test types have been added to DMM in version 8.1

1. SATA-specific test steps

Disk Manufacturing & Screening Module	Contraction of the second s	×
Remove All Tests Remove Test Test Sequence:	Post-Test Actions Test Status Test Thresholds Pre-Test Actions Test Setup Random or Sequential	Bus 0: Target 255: Primary IDE Chan Target 0: Locked Target 1: Locked Bus 1: Target 255: Secondary IDE Chan Bus 2: Target 255: Primary IDE Chan Target 0: ST375033 0NS Bus 3: Target 255: Secondary IDE Ch Target 0: ST310003 40NS Bus 4: Target 128: QLogic QLA2000/Q Bus 5: Target 7: Adaptec SCSI Car Bus 6: Target 255: Adaptec Serial A Target 0: LITE-ON DVDRW LH-20A1 Target 256: WL250GSA 8721 Bus 7: Target 255: LSI Adapter, SAS Bus 8: Target 0: USB & 1394 Devic
Save to File Save to File Start Test Stop Current Test	Stop Test After • Time 1 • Time 1 • Blocks -1 • Blocks -1 • Fixed/Random Transfers Lengths • Fixed/Random Transfers Lengths • Fixed/Random Transfers Lengths • Fixed 128 blk • Random 128 max blk Test Data Data Pattern • Compare on Reads • Overlay Block # Add This Test to Test Sequence Modify Current Test Step Stop All Tests Save Setup Load Setup	

2. SATA SMART test type

This test step will retrieve the SMART data from each drive and has two methods to screen disks.

The first method will check ALL SMART parameters and if ANY are within your specified count of their Thresholds the drive will be failed:

🔽 Fail On Threshold	ls: Fail drive if ANY parameter is wi <mark>thin 10 C</mark> ounts (of its threshold
Fail On RAW valu	les:	
📕 Fail if Para		(decimal)
🗖 Fail if Pare 🛛	OMM can fail a drive if ANY SMART	(decimal)
📕 Fail if Para	parameter value approaches its	(decimal)
🗖 Fail if Para	count	(decimal)
🗖 Fail if Para		(decimal)

The second method lets you specify up to five SMART PARAMETER/VALUE pairs and compare either <= or >= to your specified value, and fail the drive accordingly:

C Native SATA Port	💿 SAS Ada	pter wł	nich suppo	rts SAT	
🗖 Fail On Thresholds: Fail	drive if ANY parar	neter is	: within	Count	s of its threshold
Fail On RAW values:	N				1
Fail if Parameter	00 15 0 <=	Or	C >=	97	
Fail if Parameter	00 C <=	nO	• >=	50	DMM can fail a drive
🗖 Fail if Parameter 🗍	C <=	Or	C >=		any SMART
🗖 Fail if Parameter 🛛	C <=	Or	C >=		parameter is either
🗖 Fail if Parameter 🗍	• <=	Or	C >=		defined value

3. SATA Info Test type

This type of test will retrieve all ATA IDENTIFY, SMART, and SMART Self-Test Log data from each drive and record this information into each drives log file.

