SCSI Toolbox Tape Manufacturing Module

SCSI Toolbox LLC is proud to announce the Tape Manufacturing Module additon to the **SCSItoolbox**, joining a decade of real-world tape drive testing experience with input from hundreds of customers to bring the best new testing tool to the tape manufacturing and integration marketplace.

The Tape Manufacturing Module is the easiest to use, most versatile, and fastest tape testing product on the market. A true multi-threaded, multiple host bus adapter, multi-drive screening and testing tool, the Tape Manufacturing Module allows you to:

- confirm that the proper drives are in the subsystem
- download new drive firmware if needed
- set compression on or off
- log and track all error information
- run any type of test, or sequence of tests at **full bus and device speeds**
- run ANY external program as a part of the test sequence
- log all process activities, drive information, and any errors to an Access database
- create an individual text log file for each device tested

All processes and test sequences are created from a graphical user interface – no programming or scripting is required! Time from installation to a complete test process can be as little as 5 minutes!

Defining the Test Process

Test processes are divided into three sections, **pre-test**, **test**, **and post-test**.

Pre-Test

The pre-test process allows your test to screen the attached drives by the following qualifiers:

Drive Vendor – you can specify that a drive must match a certain vendor code, or the drive will be rejected from the test. Example = "QUANTUM"

Drive Product – you can specify that a drive must match a certain product code, or the drive will be rejected from the test. Example = "SDLT600"

Drive Firmware Version – you can specify that the firmware version of each drive must match a specified version. If the version does not match the drive under test the drive can either be rejected, or the proper firmware file can be downloaded into the drive.

Rewind All Drives – all drives can be rewound before the test sequence is started.

Set Compression On or Off – test with or without data compression enabled.

Clear Log Pages – all Log Page (error and performance) data can be cleared at the beginning of the test process.

Record Mode or Log Page data – all Mode and/or Log page data can be logged at the beginning of the test process.

During the test process, each drive will be individually checked against any or all of the above parameters.

The entire pre-test process definition is accomplished by using the simple GUI choices as show below:

Tape Manufacturing Module		
Test Sequence: Remove Test	Pre-Test Actions Test Setup Post Test Actions Test Status	Dur O. Turat 255, stari
	Check: Action: ✓ Vendor <> SONY ✓ Stop Product <> Stop Version <> C Stop Firmware File Name = Browse OFF OF No Change	Bus 0: Target 2:5: atapi Target 0: HL-DT-ST CD-ROM GCR-84838 Bus 1: Target 2:5: atapi Target 0: W/DC W/D16 00JB-00FUA0 Bus 3: Target 2:5: atapi Target 0: Maxtor 6 Y060L0 Bus 4: Target 7: adpu160m Target 0: SONY SDZ-100 Target 1: OUANTUM SuperDLT1
Test Progress:		Target 6: OVERLAND LXB
Save to File	 Rewind All Drives Cable/Data Path Integrity Test Clear Log Pages Save Log Pages to Database 	Target 109: SEAGATE ST318451FC Target 110: SEAGATE ST318451FC Target 111: HITACHI DK32DJ-72FC Target 112: SEAGATE ST318451FC Target 113: IBM DDYF-T18350R Target 114: IBM DDYF-T18350S Target 115: IBM DDYF-T18350S Target 117: HITACHI DK32DJ-72FC Target 118: HITACHI DK32DJ-72FC Target 119: IBM DDYF-T18350S Target 119: IBM DDYF-T18350S Target 119: IBM DDYF-T18350S
OK Start Test To	Start Stop All Save Setup Load Setup	

Test Configuration

The test process will be made up of one or more test sequences. Each test sequence is defined by selecting test definition parameters from the Test Configuration Menu. Once a test is defined the test is added to the test sequence list.

The following tests can be used in a test sequence:

Type of Test

- Write
- Read
- Write FileMark
- Read FileMark
- Rewind
- Space Forward by Block
- Space Forward by FileMark
- Space Reverse by Block
- Space Reverse by FileMark
- Space to End Of Data
- Turn Compression On
- Turn Compression Off
- Clear Log Pages
- Save Log Pages
- Synchronize
- Run External Program

Data Patterns

- 13 data patterns are available
- Data compare on read can be turned on or off

Test Duration

- Read and Write tests can be selected to run for a specified time, or run until a specified amount of data has been transferred.

In the same manner as the pre-test conditions, tests are easily and quickly defined with the GUI as shown below – no editing, no syntax or language to learn, **no way to make a mistake!**

Tape Manufacturing Module		X
Test Sequence: Remove Test Rewind 1. Rewind 2. Write 500 MBytes, Alt Zeros and 0 3. Write FileMark 4. Rewind 5. Read · 500 MBytes, Alt Zeros and 0 6. Read FileMark 7. Synchronize 8. External Program 9. Rewind	Pre-Test Actions Test Setup Post Test Actions Test Status Type of Test Write Read Write FileMark Read FileMark Rewind Space Forward FileWark E00 Compression DN Compression OFF Clear Log Pages Save Log Pages Download Firmware Synchronize External Program Add This Test to Test Sequence	Bus 0: Target 255: atapi Target 0: HL-DT-ST CD-ROM GCR-84838 Bus 1: Target 255: atapi Bus 2: Target 255: atapi Target 0: WDC WD16 00JB-00FUA0 Starget 0: WDC WD16 00JB-00FUA0 Starget 0: Maxtor 6 Y060L0 Starget 0: SONY SD2-100 Target 0: SONY SD2-100 Target 4: QUANTUM SuperDLT1 Target 6: OVERLAND LX8 Bus 5: Target 7: loxnds
Save to File OK Start Test Stop O	Download File/External Program Executable A: VJan212004.exe Browse Stop Test After Time Time Min Test Data Pattern Alternating (0\1) Immediate Stop All Save Setup Load Setup	Target 109: SEAGATE ST318451FC Target 110: SEAGATE ST318304FC Target 111: HITACHI DK32DJ-72FC Target 112: SEAGATE ST318451FC Target 113: IBM DDYF-T18350R Target 114: IBM DDYF-T18350S Target 115: IBM DDYF-T18350S Target 117: HITACHI DK32DJ-72FC Target 117: HITACHI DK32DJ-72FC Target 118: HITACHI DK32DJ-72FC Target 119: IBM DDYF-T18350S Target 119: IBM DDYF-T18350S Target 119: IBM DDYF-T18350S Target 119: IBM DDYF-T18350S

Device Selection

Drives to be tested are selected from a simple tree control. Any drive on any Host Bus Adapter (SCSI, Fibre Channel, ATAPI) can be selected for test.

Once drives are selected and the test process has begun, color-coded indicators show each drives status, and each drive may individually be:

-Paused – pause the current test -Resume – resume the current test from where it was paused -Stop Current Test – stop the current test and proceed to the next test in the test sequence, if any -Stop All Tests – stop any further testing on the drive -Show Status – display the current test being run, the status of the test, performance and error statistics

Again, each drive can be individually controlled and monitored during the test process!

Here is an example of the current status of a drive under test:

Status Display	X
Test being run on HA 4, Target (2. Write - 500 MBytes, Alt 2	D, Lun O: OK Zeros and Ones
Test Status:	Test In Progress
Number of Blocks Transferred:	1159
Number of Bytes Transferred:	72.44 MB
This Drive's Transfer Rate:	0.86 MB/sec
Time Running:	84 seconds
Estimated Time Remaining:	495 seconds remaining
Total System Transfer Rate:	1.69 MB/sec
Total System Burst Rate:	1.70 MB/sec

The Fastest tape test/screening system available!

The Tape Manufacturing Module tests and configures each drive as if it were the only drive being tested. This means that as fast as a given drive/hba combination will run, that is how quickly your test process will finish.

For instance, if you have two Ultra 320 hba's in your system, and one Ultra 160 hba, the drives connected to the faster subsystem will not have to wait for the slower drives!

If you have a 5 step test sequence, the faster drives will finish each step and move on to the next as fast as they can, without waiting for the slower drives to finish!

If your business relies on processing as many drives as possible (as thoroughly as possible of course!) – the Tape Manufacturing Module will maximize your test process and your profits!

The Ultimate in reporting / data collecting

The Tape Manufacturing Module records every event that happens during the test process to an Access database. If you need to look at any part of your test process later down the road, the Tape Manufacturing Module has already collected all data for you. Detailed information on each drive tested (vendor, product, firmware version, mode page settings, what tests were run, test results, performance numbers, detailed error information) is all logged to a data base that can be accessed any way you would like.

In addition, and individual text file is created for each device tested. All test information and results are logged.

Need to include custom test methods?

The Tape Manufacturing Module allows you to synchronize all device tests, and to run **any external program** as a part of a test sequence. For example, you could:

- Control any brand of environmental/temperature chamber right from your test sequence
- Run an external program to access vendor unique factory log information during a test sequence
- Control a programmable power supply
- Send an email to notify a test event

But wait . . . there's more!

All of the tests included in the Tape Manufacturing Module are accessible from our Developers Toolbox – so you can write your own tests using Visual Basic or Visual C++ and have instant access to our multi-threaded tape test library! So if you need to include high level tape tests into your existing or new test processes, our tests are just a few moments of programming away!

The most economical test solution

The Tape Manufacturing Module will be included with the **SCSItoolbox** as of March 2004 (STB version 5.0)

That equals a cost of **zero**! No extra charge at all when you buy the industry standard interactive test system, the **SCSItoolbox**.

Being the industry leaders in SCSI and Fibre testing for the past decade, we are proud to bring our years of experience to a new focal point with the Tape Manufacturing Module.

We are familiar with the other products and solutions in the market, and we are confident that the Tape Manufacturing Module is by far the most superior product.

We guarantee that the Tape Manufacturing Module solution is the most -versatile, -easiest to use, -fastest, and -the best value

Try it for 10 days and see if we're not right!