

VeriTape™

LTO Cartridge Memory Reader

Introducing VeriTape™

All LTO Cartridges contain an internal memory chip called Cartridge Memory (CM). This chip contains vital information about the cartridge. VeriTape™ reads this information and extracts it into special software with a clear and concise display.

Identify deteriorating cartridges before they fail

Most systems identify defective cartridges after they fail. These cartridge failures can be disruptive and expensive. But with VeriTape™ you can monitor any cartridge and retire aging or damaged ones **before** they fail, not afterwards.

Storing mission critical data

When saving critical data to tape you must have complete confidence that your data can be recovered without problems. VeriTape™ enables you to identify and eliminate any cartridge that does not meet your standards.

Purchasing used cartridges

You may be buying damaged or aged cartridges. There is no way to judge the cartridge quality from the outside appearance of the cartridge. VeriTape™ allows you to “look inside” the cartridge and get its complete history.



Do you know where your cartridge has been? Your cartridge does!

Data displayed with VeriTape™

The available data include:

Percentage of records in error

- Recovered read & write errors
- Unrecovered read & write errors
- Servo errors & fatal servo errors

Number of bytes written & read

Number of cartridge loads

Age of cartridge

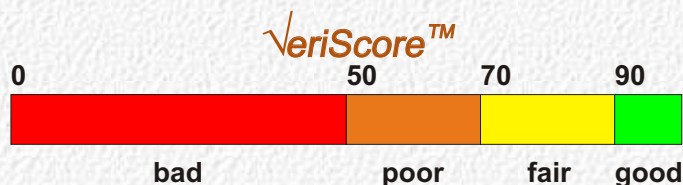
Manufacturer of cartridge

Manufacturer of the tape

Details of the last four times the cartridge was used

Interpreting VeriTape™ data

It can be time consuming, tedious, and inconsistent if you try to examine all the data in order to evaluate a cartridge. Not everyone may give each parameter the same weight. It is more helpful to create a single score number that is automatically and consistently calculated from all available data. VeriScore™ is a Tape Evaluation Score ranging from 0 (very bad) to 100 (very good). Within seconds you will learn if a used cartridge meets your standards.



Hardware & Software requirements

The LTO CMR can be connected to most systems. All you need is a USB port.

The CMR application software runs under all recent Windows operating systems.

CMR Software

Display

The LTO CMR automatically detects the presents of a cartridge, reads its memory chip, and displays the data.

Save

The 'save file' function allows you save the CM contents in a file.

Save Automatic

The 'save automatic' function reads the CM and saves its contents in a file. A visual and audible indication tells the operator when to change cartridges. This function allows you to rapidly read and save the CM contents of multiple cartridges.

Open

Opens and displays previously saved files. When more than one file is selected, the software performs a **statistical analysis** and displays statistical data including maximum, minimum, average, and standard deviation from the selected files.

Regardless of the number of cartridges you evaluate, unacceptable cartridges will immediately be shown.

LTO CM Reader - IMATION-0821606930

File Action Help

Cartridge Details

Manufacturer	IMATION
Serial Number	0821606930
Tape Score	92
Manufacture Date	2003.12.29
Cartridge Type	LTO 2 cartridge
Tape Alerts	none
Last Unload	Normal
Thread Count	1
Total Data Written	145 gigabytes
Total Data Read	404 kilobytes
Recent Data Written	145 gigabytes
Recent Data Read	404 kilobytes
Recent Write Retries	526 (1.467e-03)
Recent Read Retries	0
Recent Servo Errors	0
Recent Fatal Write Errors	0
Recent Fatal Read Errors	0
Recent Fatal Servo Errors	0
Total Write Retries	526 (1.467e-03)
Total Read Retries	0
Total Servo Errors	0
Total Fatal Write Errors	0
Total Fatal Read Errors	0
Total Fatal Servo Errors	0

CM data read from D:\Mountain_Engineering\LtoReader\CM-da

CMR Display

The display gives you the information you need. Values that are outside acceptable norms are highlighted in order of severity in yellow, orange, and red colors.

VeriScore™
Summary information

Errors that occurred within the last four times the cartridge was loaded are known as “recent errors”. Because of their importance they are displayed first and are weighted higher than other errors in calculating VeriScore™.

Error summary for entire cartridge

CMR Statistics

When the saved results of several cartridges are selected, the CMR software displays the summary information of all tapes plus additional statistical information, which includes the minimum, the maximum, the average, and the standard deviation of all values.

Click on a value (on VeriScore, for example) and the table is sorted for this value. Cartridges that do not meet your standard can immediately be identified and discarded.

LTO CM Reader - Files read from D:\Mountain_Engineering\LtoReader\CM-data\server-backups

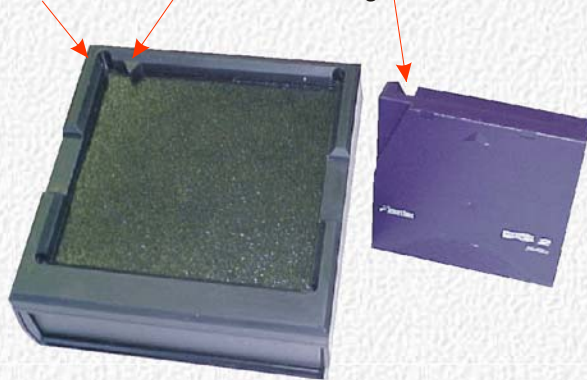
File Action Help

Summary

	Min	Max	Avg	SD	FUJIFILM	VERBATIM	FUJIFILM	IMATION	IMATION	IMATION	IMATION	IMATION
Serial Number					03DC11365	F3-PDS253	03DK101443	0816680460	080380984P	0349003256	0821617420	0821606930
Tape Score	90.83	97.75	86.84	12.81	61	61	68	74	86	86	89	92
Manufacture Date	2.75	4.35	2.91	0.40	2003.12.22	2003.10.27	2003.12.22	2003.09.25	2002.05.26	2003.05.09	2003.12.29	2003.12.29
Cartridge Type					LTO 2 cartridge	LTO 2 cartridge	LTO 2 cartridge	LTO 2 cartridge	LTO 1 cartridge	LTO 2 cartridge	LTO 2 cartridge	LTO 2 cartridge
Tape Alerts					none	none	none	none	none	none	none	none
Last Unload					Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Thread Count	1	27	6.70588	7.39734	27	13	16	9	3	16	7	1
Total Data Written	95.4 GB	1.42 TB	342 GB	401 GB	775 gigabytes	1.06 terabytes	1.42 terabytes	425 gigabytes	55.4 gigabytes	671 gigabytes	152 gigabytes	145 gigabytes
Total Data Read	0 B	32.4 GB	2.58 GB	7.88 GB	7.42 gigabytes	959 megabytes	965 megabytes	345 megabytes	1.21 megabytes	251 megabytes	32.4 gigabytes	404 kilobytes
Recent Data Written	0 B	487 GB	140 GB	126 GB	111 gigabytes	487 gigabytes	350 gigabytes	206 gigabytes	55.4 gigabytes	203 gigabytes	0 bytes	145 gigabytes
Recent Data Read	0 B	32.4 GB	2.1 GB	7.81 GB	815 megabytes	345 megabytes	296 megabytes	339 megabytes	1.21 megabytes	43.7 megabytes	32.4 gigabytes	404 kilobytes
Recent Write Retries	0	1.467e-03	1.302e-04	3.849e-04	0	1 (8.286e-07)	1 (1.153e-06)	11 (2.158e-05)	0	2 (3.378e-06)	0	526 (1.467e-03)
Recent Read Retries	0	1.366e-03	1.090e-04	3.447e-04	0	0	1 (1.366e-03)	0	0	0	39 (4.864e-04)	0
Recent Servo Errors	0	7.290e-06	4.776e-07	1.767e-06	0	1 (8.286e-07)	0	0	1 (7.290e-06)	0	0	0
Recent Fatal Write Errors	0	0	0	0	0	0	0	0	0	0	0	0
Recent Fatal Read Errors	0	0	0	0	0	0	0	0	0	0	0	0
Recent Fatal Servo Errors	0	0	0	0	0	0	0	0	0	0	0	0
Total Write Retries	0	1.467e-03	1.719e-04	3.951e-04	3 (1.564e-06)	2 (7.623e-07)	71 (2.023e-05)	14 (1.332e-05)	0	20 (1.204e-05)	216 (5.756e-04)	526 (1.467e-03)
Total Read Retries	0	1.684e-03	1.843e-04	4.306e-04	10 (5.445e-04)	4 (1.684e-03)	1 (4.186e-04)	0	0	0	39 (4.864e-04)	0
Total Servo Errors	0	1.236e-05	1.179e-06	3.378e-06	0	1 (3.812e-07)	0	13 (1.236e-05)	1 (7.290e-06)	0	0	0
Total Fatal Write Errors	0	0	0	0	0	0	0	0	0	0	0	0
Total Fatal Read Errors	0	0	0	0	0	0	0	0	0	0	0	0
Total Fatal Servo Errors	0	5.446e-05	3.204e-06	1.321e-05	1 (5.446e-05)	0	0	0	0	0	0	0

CM data read from D:\Mountain_Engineering\LtoReader\CM-data\server

Frame Locator Cartridge notch



Loading the Cartridge

The Cartridge Memory Reader (CMR) is approximately the same size as an LTO cartridge. Unlike an LTO tape drive, however, the CMR does not need to thread the tape in order to access the CM. Just place the cartridge on top of the reader and the display immediately shows the relevant information.

A locator feature in the frame matches a notch in the cartridge, thereby ensuring that the cartridge is always correctly oriented.