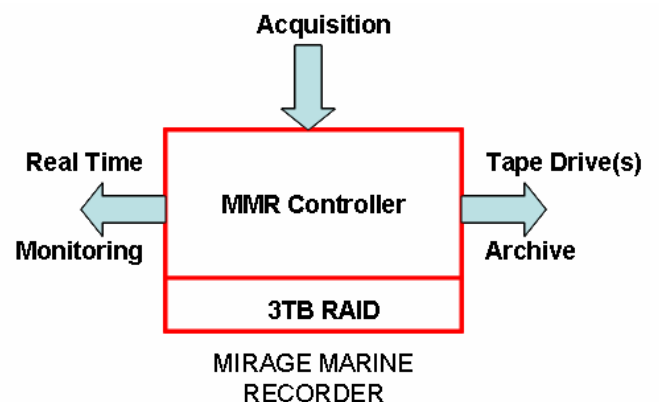# mirage™ MR
virtual TAPE controller

Introducing the *Mirage Marine Recorder*

The **Mirage Marine Recorder (MMR)** is designed to meet the performance, capacity and reliability requirements of major 3D and full-wave *marine* seismic data acquisition and processing. The marine data recorder provides 3TB of capacity for enhanced exploration resolution and around-the-clock operation. The **MMR** delivers up to 150MB/sec sustained recording and retrieval speeds, 3TB of virtual tape storage eliminating media management, and RAID 5 or RAID 10 for fault tolerant protection. All of this in a small 2U rackmountable footprint.

Transparent Operation – The **MMR** appears as an IBM 3590/3592 or LTO tape drive to the data acquisition systems providing plug and play compatibility. The ability to process directly from the high performance RAID greatly increases the throughput of existing acquisition systems. The MMR implements a Virtual Tape Autoloader with multiple virtual tape volumes. MMR automatically loads the next virtual tape volume upon executing the unload command from the acquisition system so the next blank volume is instantly available for recording. Each virtual volume can be loaded manually using the operator front panel. The data on the RAID is recorded in actual tape format. All tape formats are supported including SEG-D, Rev. 2 Technical Standards.

Simultaneous Tape Archive – The **MMR** can *archive* recorded virtual tape volumes to conventional tape drive cartridges during the capture process. Tape archival can also be initiated using the operator front panel. Up to 4 mixed or same model tape drives can be used for archive. The tape cartridges created are 100% identical and compatible with the tape drive directly attached to the seismic processing system. Operations include Archive, Archive and Verify and Verify Only

Real Time Monitoring - MMR dual port capability provides for real time processing or QC software accessing the virtual tape volumes while recording.

Higher Level of Data Protection – MMR automatically write protects recorded virtual volumes until they are successfully archived.

MIRAGE MARINE RECORDER

Seamless Scalability – Additional capacity can be added in 3TB increments by adding 1U high RAID modules. The MMR will create additional virtual volumes utilizing the added capacity automatically.

Around-the-Clock Operation – The MMRs increased capacity of up to 15TB and 1000 virtual tape volumes insures continuous data recording

Ultera
RAID for Removable Storage

Mirage_MR Specifications

Mirage Marine Recorder

The **MMR** is available in a 2U Rackmount configuration consisting of a 1U **Mirage_MR** controller and a 1U RAID system. The RAID system can be configured as a RAID 5 protected 3TB volume or a RAID 10 protected 2TB volume, depending on the level of fault tolerance and performance desired. The 3TB capacity is divided into user configurable tape volume sizes.

Product Highlights :

- Designed specifically for Marine Seismic Data Acquisition
- RAID 5 fault tolerance against data loss
- Optional RAID 10 fault tolerance
- 100% emulation of IBM 3590/3592 or LTO tape drive with built-in autoloader emulation.
- Real time monitoring during data acquisition
- Easy to use Operator Front Panel
- Continuous recording

MMR ENVIRONMENT

RELIABILITY

MTBF	100,000 HRS
MTTR	30 minutes

TEMPERATURE

Operating	5 degrees C to 50 degrees C
Non-operating	-40 degrees C to 60 degrees C

HUMIDITY

Operating	10% to 80% non-condensing
Non-operating	10% to 90% non-condensing

GENERAL SPECIFICATIONS

2U Rackmount	19 x 20.5 x 3.5 inches	115/230V (50/60)Hz

PERFORMANCE

Burst transfer rate	160 MB/sec
Sustained read/write speed	150 MB/sec

RAID CAPACITIES

3 Terabyte expandable to 15 TB

Hot swappable hard drives

INTERFACES

Host Interface	LVD SCSI U160/U320
	HVD SCSI (via converter)
	2Gb Fibrechannel
RAID Interface	LVD SCSI U160/U320
Tape Archive Interface	LVD SCSI U160/U320
	HVD SCSI (via converter)

ARCHIVAL DEVICES

All Major SCSI Tape Drives Including:
IBM 3590/3592/3490E/3480
LTO 1/2/3
Fujitsu M8100
DLT/SDLT