Mirage Data Recorder (MDR) -
The Ultimate in Seismic Recording

MDR is a virtual tape system combining the best of disk and tape technologies. It is designed to provide seismic data acquisition systems with a superior solution over existing conventional tape or disk solutions. MDR represents itself as a tape drive to data acquisition systems but utilizes disk drives as the primary recording media.

MDR operates seamlessly with all major data acquisition systems by emulating a variety of tape drives. MDR solutions are offered with a wide range of interfaces to allow connectivity to all seismic acquisition systems including older legacy systems.

MDR manages a pair of removable disk drives partitioned with multiple tape volumes as fault tolerant storage. It implements Ultera unique RAID for removable storage, allowing disk drives to be recorded to, removed, stored, reinserted, appended to, erased and returned to the field, while maintaining protection against accidental data erasure or data loss.

MDR provides complete assurance with Read after Write Real Time display of seismic data via an independent QC port. Seismic data is retrieved and displayed while the MDR recorder port is used to simultaneously record seismic files.
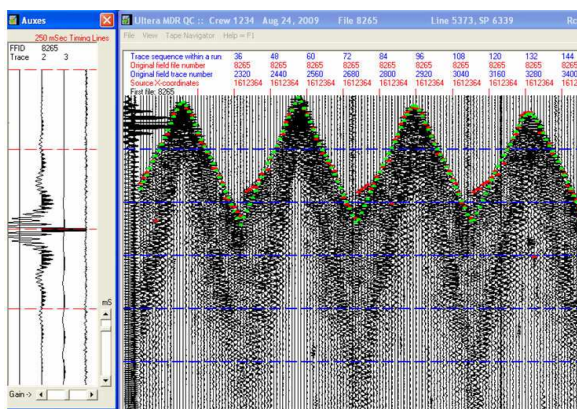
Embedded Tape Drive Archive accommodates applications requiring seismic files on tape cartridges. This function copies virtual tape cartridges to conventional tape cartridges at the full speed of tape drives. Creates up to 4 tape cartridges. This feature supports creating tape cartridges simultaneously while recording or can be done at a later time.

MDR allows disk drives to be removed after recording sessions and reinserted for more recording if desired. It eliminates timely rebuild required by other NAS or RAID disk systems. MDR disk storage can be configured in seconds as opposed to several hours required by conventional RAID storage.

MDR maximizes performance by implementing a proprietary linear recording format as opposed to using the file system required by other disk based solutions. Eliminating the file system reduces overhead and fragmentation of data files recorded on disk drives. MDR sustained recording performance exceeds 500GB/Hour. MDR is perfect for high density 3D and 4D as well as continuous recording applications.

MDR is 100% compatible with Data Acquisition systems from Sercel, ION, ARAM, FairfieldNodal, and Hydroscience Technologies.

MDR Real Time QC Display

Mirage Data Recorder Specifications

MDR Product Highlights:

- Perfect for High Density 3D, 4D and continuous recording.
- Real-Time Read After Write QC
- Fault tolerance against data loss
- Rackmount & Desktop configurations
- Easy to Use Operator Front Panel

Compatibility:

MDR is compatible with the following data acquisition systems:

- Sercel 428/408/388
- ION/ARAM Scorpion/System4/System2/Image/Aries2
- FairfieldNodal Z System/Box
- HydroScience Seamux

Interfaces:

MDR supports Data Acquisition systems with the following interfaces:

- Fibre channel 4/2 Gbit
- SCSI LVD/SE 160/320
- SCSI HVD/Differential
- Ethernet/LAN

Tape Archive Devices:

- IBM 3592/3590/3490e/3480
- Fujitsu 8100/2488
- DLT 2000/4000/7000/8000
- SDLT 220/330/600
- 8mm/4mm DAT

MDR Benefits

- Seamless Operation
- Low Cost of Ownership
- Increased Reliability
- Fault Tolerant
- Data Security
- Increased Performance
- Reduced Media Cost
- Complete Assurance
- Connectivity to Legacy Systems
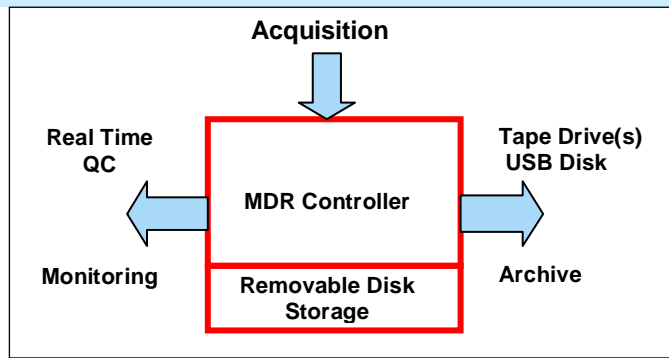- Easy Management
- Lower Maintenance Cost

MDR Block Diagram

Emulation:

MDR is available with the following user selectable tape drive emulations:

- IBM 3592
- IBM LTO
- IBM 3590
- IBM 3490e/Fujitsu 2488

The MDR is available with the following removable disk media technologies:

Disk Drive Technology	Capacity/ Performance	Removable Media	Endurance
3.5" SCSI	146GB 80MB/sec		Removable canister rated at 25,000 insertions
3.5" SCSI	300GB 120MB/sec		Removable canister rated at 25,000 insertions
3.5" SAS	Up to 2 TB 100 MB/sec		Removable canister rated at 25,000 insertions
2.5" SATA Disk Cartridge (RDX)	Up to 1 TB 46 MB/sec		Ruggedized cartridge capable of 5000 insertions and 1 meter drop
3.5" SATA Disk	Up to 2TB 90 MB/sec		Removable canister rated at 25,000 insertions
2.5" Solid State Disk	Up to 512 GB 155 MB/sec		Removable canister rated at 25,000 insertions