

# Use of Traditional Backup Storage Devices in Real Time Data Acquisition Systems

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# Discussion Topics

- Why Use Backup Storage Devices
- Overview of the High Density Digital Storage System
- The Remote Acquisition and Storage System
- Future systems

# Why Use Backup Storage Devices in Data Acquisition Systems

- Vast number of backup options available
- Interfaces available to allow interchangeability(SCSI/Fibre Channel)
- Very high cost to performance ratio
- Technology continues to develop with computer power and complexity of software

# High Density Digital Storage System

- Designed to provide storage for the Digital Acoustic Measurement System
- Requirements include
  - High Reliability
  - Large Storage Capacity
  - Capability to handle multiple channels
  - Must interface to data reduction systems

# Remote Acquisition and Storage System

- Designed for gathering digital acoustic data from very large arrays
- Requirements include
  - High Reliability
  - Rugged
  - Quick Setup in the Field

# Remote Acquisition and Storage System Requirements

- 5 mile by 5 mile 30 microphone array with remote control and monitoring of the data acquisition and storage
- High Reliability
- Efficient setup and checkout

# Remote Acquisition and Storage System Overview

- Systems Engineering approach to design
- Adaptive design techniques used
- LabView based user interface
- Internet protocol RF communication
- Data stored at each microphone site