

How did the Institute of Geoscience secure its research data?



This case study presents how the Tape Audit Software has been successfully implemented by a Research Institute of Geosciences to ensure itself a prompt and user-friendly verification solution of data quality. The assurance of data integrity of the historical research archive of high definition images is priceless for future studies performed by this and other institutes.

Client

The **Research Institute of Geosciences** performs research in the area of climate change. To do this, the institute collects a large number of **high-resolution satellite images** and retain these images on tape for long periods of time (between 5 and 20 years). These images are kept on IBM Tape Libraries and managed by the IBM Spectrum Protect backup software. The collection consists of data and images of the Earth's surface, hydrosphere, atmosphere, and biosphere.

Challenge

The Institute requires the preservation of the scientific data/images for several decades in some cases. On-going and new research projects constantly require old-archived images as part of their research reference. Therefore, the institute must have an appropriate tape audit system in place to **guarantee** that the information stored on **the archive tapes are available and readable when needed**.

The challenge arises as the audit of off-line media using Spectrum Protect is a manual process that requires constant status monitoring and modifications.

Solution

The limitations are because Spectrum Protect lacks the automation and flexibility to schedule the audit jobs seamlessly. In addition, there is an inefficient way of reporting the audit results to identify data that cannot be read and lacks the ability to create status reports.

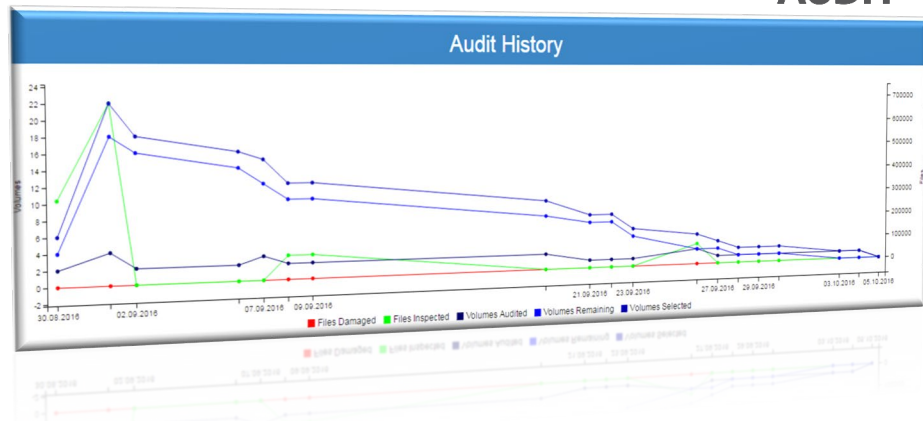
Our team worked together with the Institute's IT team to install and setup the Tape Audit solution as a front-end to the Spectrum Protect system. This process took about 3 hours and provided **the automation required to audit a large amount of off-line data.**

The IT team was able to perform audit jobs over a large amount of data with **more control and efficiency.** They were able to start the audit by selecting a particular storage pool chosen based on the criticality of the data and set the audit jobs to run periodically on a monthly basis.

The client **no longer** has to **use commands** and **scripts**, nor **provide constant monitoring of the audit jobs** as with Tape Audit, everything is done via a Web GUI.

In addition to the control and efficiency; most importantly, Tape Audit streamlines the verification for data quality and integrity by **checking for errors** at the object level providing notification and evidence reports. This process detects corrupted logical data on the Tape and avoids the situations where changed data is physically readable but logically corrupt, therefore, ensuring the applications can read and use the data.

**TAPE
AUDIT** ✓



Follow up

Now the institute has taken an approach to seamlessly conduct the audit process of their long-term archive data and are confident that their organization is **in full compliance with all required research data regulations for long-term retention.**

This allowed the research institute to provide a reliable account as to whether the data is readable by the backup application when needed.