

## Product Brief: XenData X1500 LTO-5 Digital Video Archive System



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### Overview

The XenData X1500 system delivers cost effective archiving of video files to LTO data tape. The solutions run on a Windows 7 desktop or tower computer and are very easy to use. It provides almost infinite storage, saving files to LTO tape using the industry standard *tar* format.

The X1500 includes *XenData6 Workstation* software which provides the archive, restore and tape management functionality. LTO tapes written in a robotic tape library using XenData's leading server archive solutions are fully compatible with X1500 systems. A wide range of workflows for video production, post-production and long-term digital video archiving are supported by combining X1500 systems and XenData archive servers.

## Introduction

The X1500 digital archive system delivers high capacity, fast and highly stable storage for video files. It archives to either LTO-5 or LTO-4 data tapes, both of which provide high capacities and a long archival life. LTO tape cartridge characteristics are described in the table below.

	LTO-5	LTO-4
Capacity per cartridge (without compression)*	1,500 GB	800 GB
Equivalent hours at 25 Mb/s	130 hours	70 hours
Equivalent hours at 50 Mb/s	65 hours	35 hours
Media archival life under normal office conditions.	30 years	30 years

\* Based on 1 GB = 10<sup>9</sup> bytes

## System Components

The XenData X1500 system includes the following.

- ❖ External LTO-5 drive with a SAS interface. This is read-write compatible with 1.5 TB LTO-5 and 800 GB LTO-4 tape cartridges.



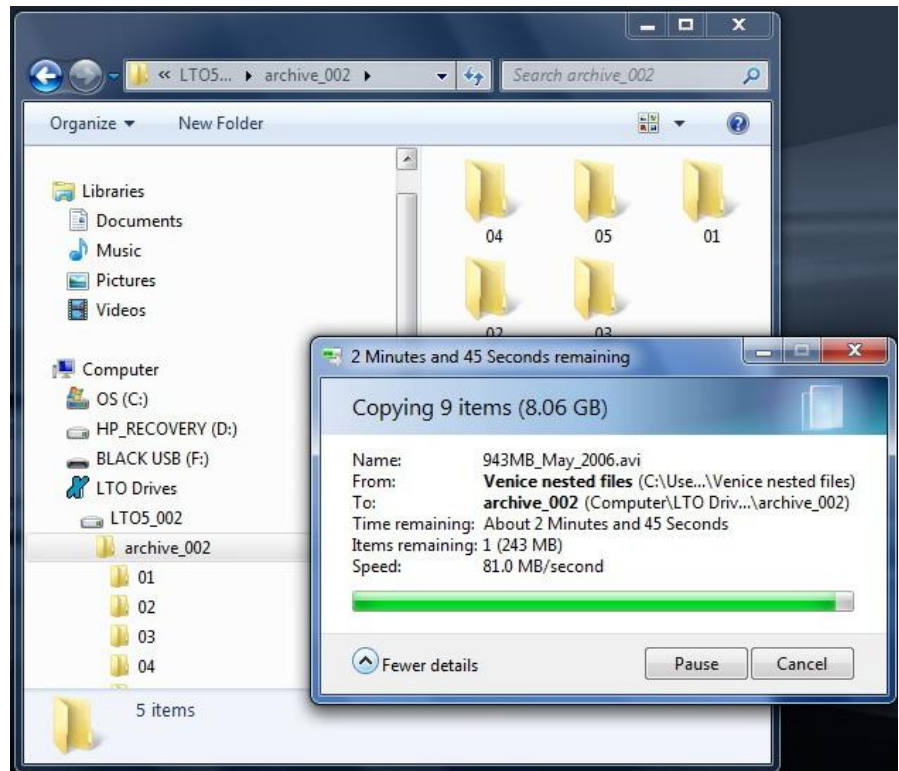
- ❖ LTO universal cleaning cartridge
- ❖ PCI-e card (model HP SC08e) to be installed in the Windows7 desktop or tower computer
- ❖ SAS cable that connects the tape drive to the PCI-e card (2m in length)
- ❖ *XenData6 Workstation* software

## System Functionality

### Archive and Restore via Drag and Drop

The *XenData6 Workstation* software archives to and restores from LTO tape using Windows Explorer. The software extends Windows Explorer's capabilities to transfer files to and from LTO using drag and drop or copy and paste. Files may be archived to tape from any accessible logical drive letter or network share. Similarly, files may be restored to a local drive letter or a network location.

The software gives an option to copy to LTO only files that have changed or are new. This is an easy way to create an updated copy of project folders on LTO.



### Maintains Original Folder Structure

The system maintains file and folder structures, which allows the transfer of nested folder structures to and from LTO tape.

### Supports All File Types

All file types are supported including non-video files.

### Supports an Unlimited Number of Offline Tapes

The X1500 can manage a large offline LTO tape archive as the files and folder structure stored on all tapes that have ever been inserted into the LTO tape drive may be retained. You can browse the contents of offline tapes using Windows Explorer and should you need to restore one or more files or folders, the system will prompt with the name of the offline tape.

## Reporting on the Entire Archive

A report generator may be used to create three types of report: Archive Status, File Search and Tape Cartridge Contents. These reports are useful for managing the contents of the complete archive.

**Report Type: File Search**  
**Volume Set: All Volume Sets**  
**Search Type: File Name Text**  
**Search: \Venice2\\*avi**

No	File Name	Generation	Version	File Size (bytes)	Volume Label
1	/X0004A/Venice2/1_3_8GB-May_2006.avi	0	1	1,487,700,480	Barcode:X0004AL4
2	/X0004A/Venice2/392MB_May_2006.avi	0	1	411,132,928	Barcode:X0004AL4
3	/X0004A/Venice2/943MB_May_2006.avi	0	1	989,532,160	Barcode:X0004AL4
4	/Venice2/1_3_8GB-May_2006.avi	0	1	1,487,700,480	Barcode:X0003AL4
5	/Venice2/392MB_May_2006.avi	0	1	411,132,928	Barcode:X0003AL4
6	/Venice2/943MB_May_2006.avi	0	1	989,532,160	Barcode:X0003AL4

The Archive Status report provides summary information about all the tape cartridges that the system knows about. The File Search report produces a list of files that meet user defined file search criteria and identifies the tapes that contain each match. The Tape Cartridge Contents report produces a list of the contents of a selected tape cartridge, including any offline cartridge. The reports may be saved in a delimited text format suitable for import into Excel.

## Tape is Self-Describing – Easy Transfer between Systems

As files are saved to LTO tape, the system keeps track of the contents by updating a tape contents catalog that is stored on the hard disk of the Windows 7 computer. When the tape becomes full, the system automatically writes a copy of the tape contents catalog to the end of the tape. The catalog may be written to the tape at any time by using a finalize operation; this will write the catalog to the end of the tape and then end of tape marks are written which prevent more files being written to that tape. This means that a tape can be moved to another X1500 system or to a XenData archive server running XenData6 Server software and the contents will be quickly updated on this other system. When a tape catalog is present, it typically takes 3 or 4 minutes to transfer a tape to another system and recreate the tape contents catalog on the hard disk of the new system.

## Writes in Open Standard tar Format

Files are written to data tape using the open standard POSIX tar format. This is important for long term archives because it means that files can be restored for decades to come using a wide range of native Linux and Unix operating systems, Microsoft Services for Unix, as well as XenData software.

## Software Licensing

### **May be used on Multiple Computers**

The X1500 includes a XenData6 Workstation software license for use with one tape drive. When you first install the software, you will assign the supplied tape drive to that license. Then, you may install the XenData6 Workstation software on multiple computers and use the specific assigned tape drive on any of those computers.

## Areas of Use

### **Video Production**

The X1500 allows transfer of files from solid state camera storage including P2.

### **Post-production**

The ease of tape cartridge transfer between XenData's archive servers with attached tape libraries and the X1500 supports a wide variety of post-production workflows.

### **Digital Video Archive**

The X1500 supports an unlimited number of tape cartridges that are retained offline allowing management of a large video archive.