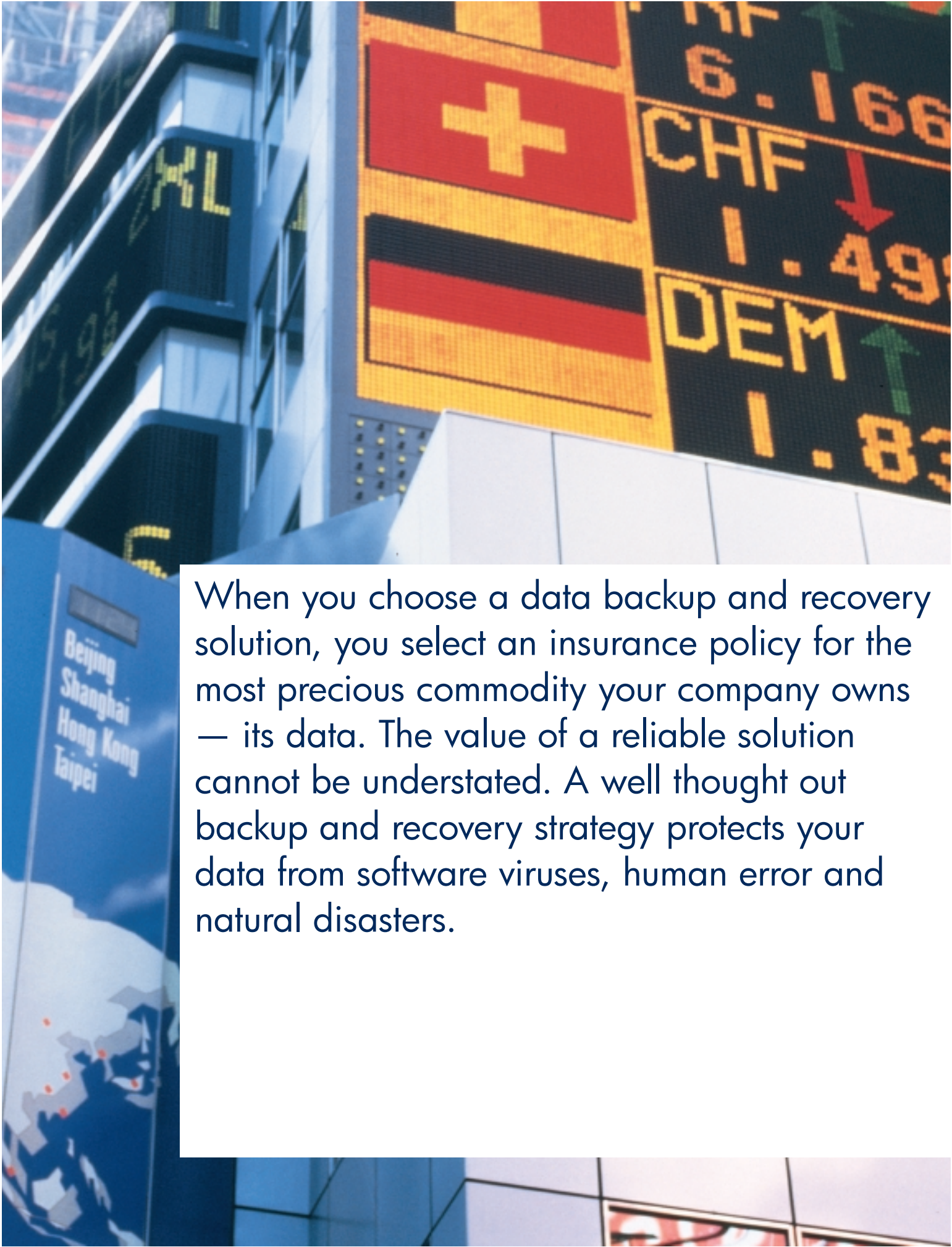


# HP StorageWorks tape drives and autoloaders

Safety net

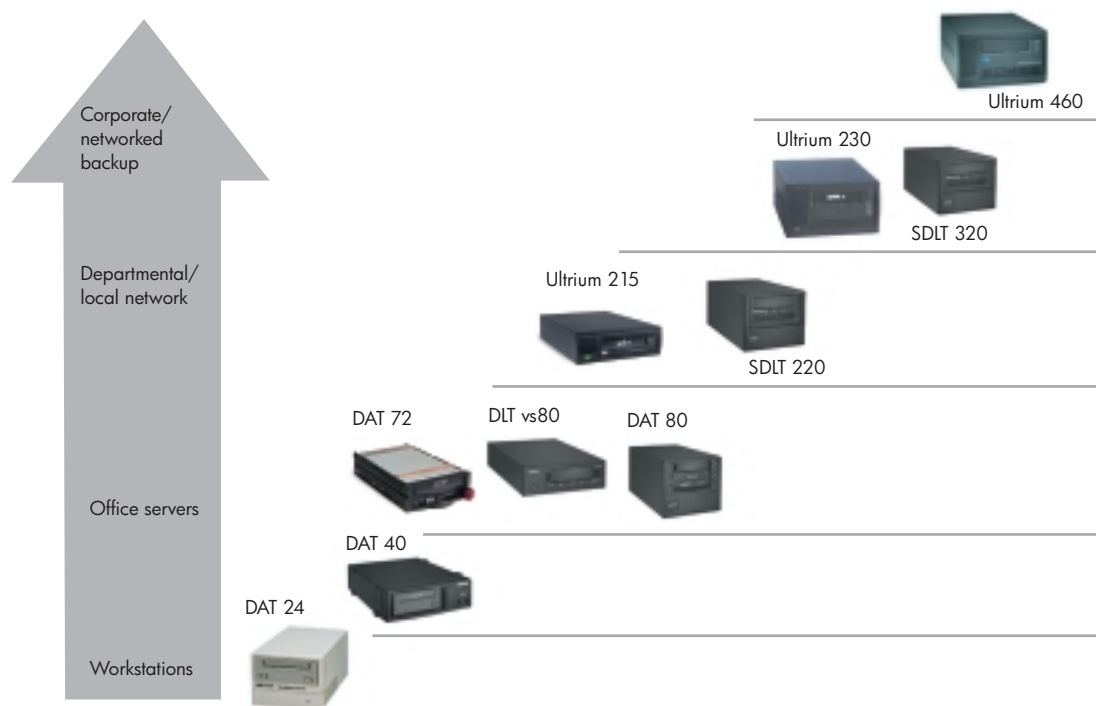
HP StorageWorks	
Ultrium tape drives .....	3
HP StorageWorks	
DAT tape drives .....	6
HP StorageWorks	
SDLT/DLT tape drives.....	8
HP StorageWorks	
tape autoloaders.....	9
HP storage media .....	12



The background image is a composite. The upper right portion shows a digital financial market display. It features the Swiss flag (red with a white cross) and the German flag (horizontal stripes of black, red, and gold). To the right of the flags, the text 'CHF' is displayed in large yellow letters, with a red downward arrow and the number '1.49' below it. Further down, 'DEM' is displayed in large yellow letters, with a green upward arrow and the number '1.83' below it. The upper left portion shows a blue sign with white text listing cities: 'Beijing', 'Shanghai', 'Hong Kong', and 'Taipei'. The sign also features a stylized map of China with red dots indicating specific locations. The overall image conveys a sense of global finance and data security.

When you choose a data backup and recovery solution, you select an insurance policy for the most precious commodity your company owns — its data. The value of a reliable solution cannot be understated. A well thought out backup and recovery strategy protects your data from software viruses, human error and natural disasters.





- Ultrium**
- For networked backup (especially SANs) and mixed server and OS environments
  - Unmatched capacity and performance
  - Builds on best of existing technologies
  - Open format increases innovation and reduces risk
  - Broad choice of performance, capacity and form factor

- SDLT, DLT and VS**
- For companies that need to continue with their DLT investment
  - Backward read compatibility with DLTape IV media
  - Scalable performance and capacity points

- DAT/DDS**
- Affordable backup solution, ideal for workstations and office servers
  - Choice of cost, speed and capacity
  - Small form-factor for all environments including hot-plug

Note: HP StorageWorks AIT drives are also available; recommended for AIT installed base and customers requiring hot-plug and IDE interface tape drives

Data recovery statistics emphasize the urgency of sound tape technology. Human error causes 32% of data loss. In addition, the hourly cost of downtime generates significant costs to companies. In an online survey conducted by Contingency Planning Research, a division of Eagle Rock Alliance, and Contingency Planning & Management magazine, 46% of the 163 respondents said their hourly downtime costs ranged from \$5K to \$1 million, and 100% said their company's survival was at risk within the first 72 hours of a disaster.<sup>1</sup>

HP recognizes these threats and offers tape technologies that place equal emphasis on backup and recovery. If data isn't backed up flawlessly, it can't be restored and a quick recovery is critical. HP knows reliability isn't just a catch phrase; it's vital to comprehensive data management. We lead the industry worldwide in tape drives and media products because we take no chances. HP StorageWorks tape drives are precision-engineered to give you flawless backup, total recovery — peace of mind.

<sup>1</sup> Eagle Rock Alliance, LTD. All Rights Reserved. For complete survey results go to: [www.eaglerockalliance.com](http://www.eaglerockalliance.com)

## Connectivity for non-HP industry leading server platforms

HP StorageWorks doesn't only mean HP ProLiant server-connect anymore. HP StorageWorks tape device products extend beyond HP servers to include qualification across other industry-leading server platforms. When you choose HP StorageWorks tape device products, you get a versatile backup solution that fits your existing server environment.

## Choosing the right tape device for your needs

For information on the right device to meet your growing business needs, visit [www.hp.com/go/tape](http://www.hp.com/go/tape), click on 'compatibility and tools' and choose 'HP StorageWorks backup sizing tool'. This Windows-based tool allows you to size and configure your ideal backup solution using information you specify. Download, install, and run this tool to configure the award-winning StorageWorks Enterprise Backup Solution with certified ISV backup applications.

For information on hardware and software compatibility, visit [www.hp.com/go/connect](http://www.hp.com/go/connect)



## Ultrium — the highest standards in the industry

To qualify for the Ultrium logo, HP must first ensure compliance with tough interchange specifications for Linear Tape-Open (LTO) drives and media. To achieve HP brand status drives and cartridges must satisfy an exhaustive battery of additional procedures that relate directly to the product's use in real life situations when real data and real businesses are at stake. Backup and restore, extremes of temperature and humidity, load/unload torture tests for automation, drop testing and accelerated aging; these are all key elements of the HP brand specification not found in the specification sheets for other brands. Before the HP name goes on our products, they must pass our rigorous quality control testing. It's the most extensive testing in the tape and disk manufacturing industry. Don't settle for less — get products that represent the highest standards in the industry.



HP StorageWorks  
Ultrium 460 tape drive



TM

March 11, 2003  
HP Ultrium 460e  
Hewlett-Packard Company

PC Magazine Editors' Choice Award Logo  
is a trademark of Ziff Davis Publishing Holdings Inc.  
Used under license.

### HP StorageWorks Ultrium 460 tape drive

#### A powerhouse of performance and capacity

Delivering the ultimate in performance and capacity, the HP StorageWorks Ultrium 460 tape drive lets you

back up 400 GB of compressed data on a single cartridge in less than 2 hours (compressed). Setting new standards for reliability and performance in the super drive tape market, it's the next generation in the Ultrium tape drive family.

With a transfer rate of 60 MB/sec (compressed) and rugged reliability, the Ultrium 460 tape drive is the ideal choice for enterprise-class data protection needs, particularly where uptime is critical. Our exclusive data rate-matching feature enables the drive to adapt dynamically to your server or network transfer rate keeping the drive streaming, maximizing performance and reducing wear and tear on the drive media. And, the Ultrium 460 tape drive's open format and well-defined four-generation roadmap gives you the assurance of continued support and new capabilities for years to come. Now, you can protect your investment well into the future. The HP StorageWorks Ultrium 460 tape drive is fully read and write compatible with all Ultrium 1 and 2 tape drives. Economical media means you get the lowest cost of ownership on a per GB basis. The HP StorageWorks Ultrium 460 tape drive is:

- *Versatile:* supports HP servers, as well as other leading brands
- *High-performance:* stores 400 GB in under 2 hours (compressed)
- *Evolutionary:* originates from the successful first generation of HP StorageWorks Ultrium tape drives into the four-generation roadmap for the future

- *Reliable*: delivers unsurpassed dependability at high duty cycles
- *Adaptable*: provides data rate matching — optimizing performance when your system doesn't run as fast as your tape drive
- *Compatible*: features technology specifications backed by industry leaders and available from multiple vendors
- *Flexible*: available for internal, external and rack-mounted configurations

## HP StorageWorks Ultrium 230 tape drive

### Our high-performance 200 GB superdrive

The high-performance HP StorageWorks Ultrium 230 tape drive lets you store up to 200 GB of compressed data on a single tape in less than 2 hours (compressed). With unmatched reliability and ease of use in mind, this first-generation Ultrium drive has a rugged design built on the best existing technologies creating a new level of data protection. On top of its high capacity and performance of 30 MB/sec compressed, the HP StorageWorks Ultrium 230 tape drive gives you fast, easy and virtually foolproof data protection with HP One-Button Disaster Recovery (OBDR).

Designed for medium to large organizations requiring a single enterprise-wide backup and archive solution, the Ultrium 230 tape drive meets your exacting demands and

growing storage needs — now and in the future. Our unique reliability features include a simple tape path, rigid leader pin, active internal head-cleaner, data rate matching to reduce repositions, and robust load/unload mechanism. When you compare current tape solutions, you'll discover HP reliability significantly increases the success rate of backup and restore operations. The ultimate in its class for trouble-free operation and high performance, the HP StorageWorks Ultrium 230 tape drive is:

- *Versatile*: supports HP servers, as well as other leading brands
- *High-performance*: stores 200 GB on a single cartridge in less than 2 hours
- *Evolutionary*: employs advanced reliability and performance features building on the best of existing technologies
- *Manageable*: cartridge memory holds history and diagnostic data for installation and troubleshooting, plus drive and media monitoring
- *Easy to use*: HP One-Button Disaster Recovery gives you the industry's most user-friendly data recovery solution
- *Flexible*: available for internal, external and rack-mounted configurations
- *Compatible*: tested with a broad range of servers, operating systems and backup packages



HP StorageWorks  
Ultrium 230 tape drive

## HP StorageWorks Ultrium 215 tape drive

### **The space-efficient entry point to the Ultrium superdrive family**

The HP StorageWorks Ultrium 215 tape drive offers you unmatched capacity in a half-height form factor. Giving you the best price and performance for mid-range systems, the Ultrium 215 tape drive is easy to integrate into desktop workstations, servers and racks. This high-speed, compact tape drive provides 200 GB of capacity on a single tape cartridge at speeds of up to 54 GB per hour (compressed).

The HP One-Button Disaster Recovery (OBDR) feature gives you fast, easy and virtually foolproof protection. Plus, with HP StorageWorks Library & Tape Tools utility you get easy installation and management. The Ultrium 215 tape drive is a robust mechanism built for 100% duty cycles. And, for best performance and reliability, the drive uses data rate matching to adjust to the speed of the host. The highly reliable leader-capture mechanisms increase the success of your backup and restore operations. Data is critical to your business — HP protects it with the Ultrium 215 tape drive. For systems where high capacity

and low cost of ownership are critical, it's the ideal solution for network backup. The HP StorageWorks Ultrium 215 tape drive is:

- *Versatile:* supports HP servers, as well as other leading brands
- *Large capacity:* stores up to 200 GB on a single cartridge
- *Compact:* features a half-height 5 1/4-inch form factor for easy integration
- *Manageable:* provides superior management capability for easy install, use and support
- *Fast:* minimizes network interruption by storing 54 GB of data per hour
- *Well-connected:* tested with a broad range of servers, operating systems and backup packages
- *Compatible:* media is interchangeable with all Ultrium 1 drives and can be read by all Ultrium 2 tape drives



HP StorageWorks  
Ultrium 215 tape drive





## HP StorageWorks DDS/DAT technology — meeting stringent demands

Since its introduction, Digital Data Storage (DDS), also referred to as DAT, has had a huge following in the PC server backup market. DDS leads the market in shipments because its balance of capacity, reliability, and low cost meets the needs of so many users. In January 2003, HP shipped its seven millionth DAT drive. As the market leader with almost half the share of the business, HP has continued its commitment to DDS with the introduction of its fifth-generation DAT drive. Our years of experience with DAT design allow us to meet the stringent pricing, performance, reliability, and functionality demands of the IT market.



HP StorageWorks  
DAT 72 tape drive

DDS is a helical scan format that delivers both speed and capacity in a compact form factor. The HP family of DAT products includes three DDS generations, available in internal, external, hot-plug, and rack-mounted models, plus a DDS-4 autoloader. The low cost of DDS media contributes to the technology's excellent value. With this winning combination of features and value, it's no wonder that DDS continues to dominate the low-end backup market.

## HP StorageWorks DAT 72 tape drive (fifth-generation DDS)

### **DDS is alive! Continuation of the hugely successful DDS tape format**

Responding to the need for greater capacity, the HP StorageWorks DAT 72 tape drive extends the hugely successful DDS format further. Addressing the backup needs of an exceptionally wide range of customers, this DAT tape drive provides reliable, cost-effective data protection for entry-level to mid-range servers and high-end workstations.

Storing 72 GB of compressed data within 3.5 hours, it is ideal for storage-hungry applications, and a perfect marriage with our 36 GB and 72 GB SCSI disk drives. With backwards read and write compatibility with previous generations, DAT 72 suits customers who must balance cost, capacity and performance. Your data is safe with one of the most reliable tape technologies on the market. It's what you need for fast, cost-effective, reliable 72 GB backup. Outstanding reliability is assured with 400,000 hours MTBF. The HP StorageWorks DAT 72 tape drive includes HP One-Button Disaster Recovery (OBDR), making restoring your entire system fast and easy. The DAT 72 is:

- *Versatile:* supports a wide variety of servers, operating systems, and backup software
- *Reliable:* supports HP One-Button Disaster Recovery when backing up and restoring on HP ProLiant and AlphaServer systems for fast, easy recovery from system crashes
- *Investment protection:* reads and writes DDS-3/DAT 24 and DDS-4/DAT 40 media, providing an effortless upgrade path



HP StorageWorks  
DAT 40

- *Compatible*: supports “plug and play” functionality with servers, operating systems and backup software
- *Flexible*: available in internal, external, hot-plug and rack-mounted models
- *Affordable*: provides excellent low cost of ownership driven by low cost of media
- *Fast*: backs up at a rate of 21.6 GB per hour (compressed)
- *Manageable*: features quick and easy installation and diagnosis of issues
- *Adaptable*: available in internal, external, hot-plug, and rack-mounted models

## HP StorageWorks DAT 40 and DAT 24 tape drives

### Unbeatable value DAT backup solution for workstations and small servers

The HP StorageWorks DAT 40 and DAT 24 tape drives address the evolving backup needs of an exceptionally wide range of organizations and networks where backup speed is an issue. The DAT 40 tape drive stores 40 GB within two hours (assuming 2:1 data compression), making it the ideal technology for applications that require large amounts of data backed up rapidly. The DAT 40's excellent data integrity, improved tape path cleaning, and 400,000 hours MTBF delivers outstanding reliability overall. The DAT 24 tape drive offers 24 GB capacity and transfer rate of 2 GB per hour (assuming 2:1 data compression), delivering excellent value in data protection. Both drives include HP StorageWorks One-Button Disaster Recovery (OBDR) for fast and easy system

restores. Additional features include the HP StorageWorks Library & Tape Tools for installation and troubleshooting, and Tapealert for monitoring the drive and media. The DAT 40 and DAT 24 tape drives are complete solutions and include cables, rails, media, and backup software. Plus, they are compatible with leading servers, operating systems and backup software. HP StorageWorks DAT 40 and DAT 24 tape drives are:

- *Versatile*: supports HP servers as well as other industry servers
- *Fast*: DAT 40 tape drive offers 40 GB compressed capacity and compressed transfer rate of 21.6 GB/hr; DAT 24 tape drive offers 24 GB compressed capacity and a compressed transfer rate of 7.2 GB/hr
- *Reliable*: supports HP One-Button Disaster Recovery (when backing up and restoring on HP ProLiant and AlphaServer systems, for fast, easy recovery from system crashes)
- *Scalable*: DAT 40 tape drive reads and writes DDS-2/DAT 8, DDS-3/DAT 24, and DDS-4/DAT 40 media; DAT 24 tape drive reads and writes to DDS-1/DAT 4, DDS-2/DAT 8 and DDS-3/DAT 24 media providing effortless upgrade paths
- *Manageable*: Tapealert monitors both drive and media to signal problems
- *Compatible*: supports “plug and play” functionality with a broad range of servers, operating systems, and backup software
- *Adaptable*: available in internal, external, hot-plug, and rack-mounted models





## HP StorageWorks SDLT/DLT technology — store and restore data with confidence

HP StorageWorks SDLT/DLT technology, recognized for its large capacities and fast retrieval rates, is ideal for customers who have standardized their data center with HP StorageWorks DLTape IV media. Now you can store and restore data with confidence.

### HP StorageWorks SDLT 320 and 220 tape drives

#### High performance

HP StorageWorks SDLT tape drives are ideally suited for data center and departmental backups where capacity and performance are critical. The SDLT 320 tape drive offers up to 320 GB (compressed) of storage capacity and 32 MB/sec sustained data transfer rate (compressed). The SDLT 220 tape drive provides 220 GB (compressed) of storage capacity and 22 MB/sec sustained data transfer rate (compressed). The SDLT 320 tape drive gives you backward read/write compatibility to the SDLT 220 tape drive, and backward read compatibility to DLT tape drives. The HP StorageWorks SDLT 320 and 220 tape drives give you the highest level of investment protection in the enterprise tape market.



HP StorageWorks  
SDLT 320 tape drive



HP StorageWorks  
DLT 80 tape drive

### HP StorageWorks DLT vs80 and DLT 80 tape drives

#### Store and restore data with confidence

HP StorageWorks DLT vs80 and DLT 80 tape drives are built for mid-range servers. The HP StorageWorks DLT vs80 tape drive provides affordable 80 GB backup (compressed) in a half-height form factor, and its 6 MB/sec compressed transfer rate lets you back up 80 Gb of data in under 4 hours. The DLT 80 tape drive offers 80 GB backup drives (compressed) and 12 MB/sec (compressed). It gives you the extra bandwidth and capacity needed to manage ever-shrinking backup windows without giving up the superior reliability that DLT tape technology historically provides during high duty cycles. Plus, it offers you “plug and play” functionality with servers, operating systems, and backup software. Both drives are available in internal, external and rack-mountable models. Their low purchase price coupled with dependable, scalable backup allows you to store and restore data with confidence.

### HP StorageWorks AIT tape solutions

HP offers a comprehensive line-up of 8mm AIT-based products. The small 3.5” form factor of HP StorageWorks AIT tape drives allows HP to offer hot-plug models capable of installation in any universal hot-plug bay in HP ProLiant servers, AlphaServer systems as well as other industry servers — going where other tape drives don’t fit. The AIT 35 tape drive provides 70 GB capacity (compressed), 14.4 GB/hr backup performance (compressed) and a 3.5-inch half-height form factor. AIT 50 is capable of backing up 43.2 GB/hr (compressed), all in a small form factor. The AIT 100 tape drive is capable of backing up over 86 GB/hr (compressed).



## HP StorageWorks tape autoloaders — where versatility and flexibility meet

HP StorageWorks high capacity, high-performance tape storage technology offers “future-now” functionality. And, as part of the HP total solution commitment, our autoloader technology combines versatility and flexibility for the most dynamic storage and backup solution available in the industry.

### HP StorageWorks 1/8 autoloader

#### **Affordable, slim, easy and reliable backup**

Designed for basic data protection, the HP StorageWorks 1/8 autoloader provides cost-effective, easy-to-install unattended backup. No more struggling to remember to change tapes or start backup programs. This reliable backup technology gives you peace of mind. The 1/8 autoloader is equipped with either an Ultrium 230 drive or a DLT vs80 drive. Although the 1/8 autoloader is compact, requiring only a 2U rack space, it can house up to eight cartridges. It allows you to develop a tape rotation scheme for scheduled back up on servers for daily rotational backup of 200 GB or less. The Ultrium



HP StorageWorks  
1/8 autoloader

version is an ideal consolidated backup solution for multiple servers where high throughput and high capacity are required. For users who have less stringent capacity and throughput requirements, HP recommends the DLT vs80. Both models come with HP OpenView Data Protector Single Server Edition for Microsoft® Windows® 2000/NT. Separate accessory kits are available for rack-mounting and adding a host bus adapter or tapes. The HP StorageWorks 1/8 autoloader is:

- *Versatile:* supports HP servers as well as other industry servers
- *Affordable:* automates the backup process at a price comparable to stand alone drives
- *Reliable:* provides consistent back up and automatically changes tapes
- *Small form factor:* occupies a minimum of rack space
- *Efficient:* allows IT resources performing manual backups to work on other critical tasks
- *Compact:* holds eight cartridges and one drive in 2U
- *Evolutionary:* provides easy transition from stand alone tape into automated tape backup
- *Compatible:* works with leading operating systems and backup software
- *Velocity:* stores up to 1.6 TB (compressed)

## HP StorageWorks SSL1016 tape autoloader

Combining library features and capacity in the compact form of an autoloader, the HP StorageWorks SSL1016 tape autoloader is in a class of its own. Ideal for replicated systems, the web-based management feature reduces dependence on local IT resources allowing central support to multiple sites. This increases manageability of backup and recovery by enabling administrators to monitor and control the unit from across the room or across the globe. The SSL1016 tape autoloader platform provides migration paths for earlier DLT1 versions to upgrade to SDLT technology. With a native capacity of up to 3.2 TB, the SSL1016 tackles many jobs previously in the domain of entry-level libraries. The SSL1016 has a form factor of 2U, which gives you a large amount of storage without consuming a large amount of valuable rack space. Supporting the Ultrium 460, SDLT 320 and DLT1 drives, the SSL1016 tape gives you a wide range of storage capacities. The new SSL1016 platform incorporates many tape library features such as bar code reading, enabling short inventory times and facilitating media management. Plus, bulk handling of media is accomplished through two 8-slot magazines, and it easily integrates into a data protection solution for



HP StorageWorks  
SSL1016 tape autoloader

small to mid-size servers and applications. Look for these key features and benefits:

- *Versatile:* supports HP servers as well as other industry servers
- *High storage density:* provides up to 3.2 TB with Ultrium 460 technology
- *Manageable:* features web-based remote management allowing monitoring and management from anywhere in the world
- *Evolutionary:* drive upgrade sled allows DLT1 versions to be upgraded to SDLT 320
- *Efficient:* saves valuable rack space with 2U and 3.2 TB
- *Affordable:* library features in a form factor with the price of an autoloader
- *Diverse:* supports Ultrium 460, SDLT 320 and DLT1 drive technologies
- *Reliable:* features standard bar code reader for improved media management
- *Compatible:* runs with leading operating systems and backup software





HP StorageWorks  
DAT 40 autoloader

## HP StorageWorks DAT 40 autoloader

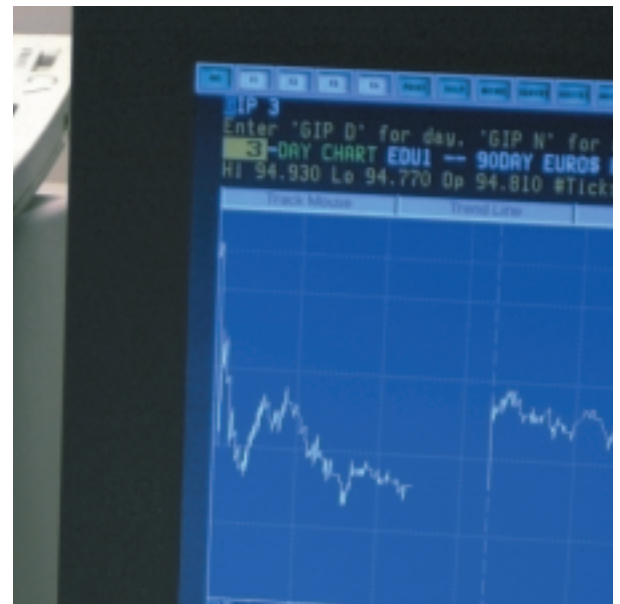
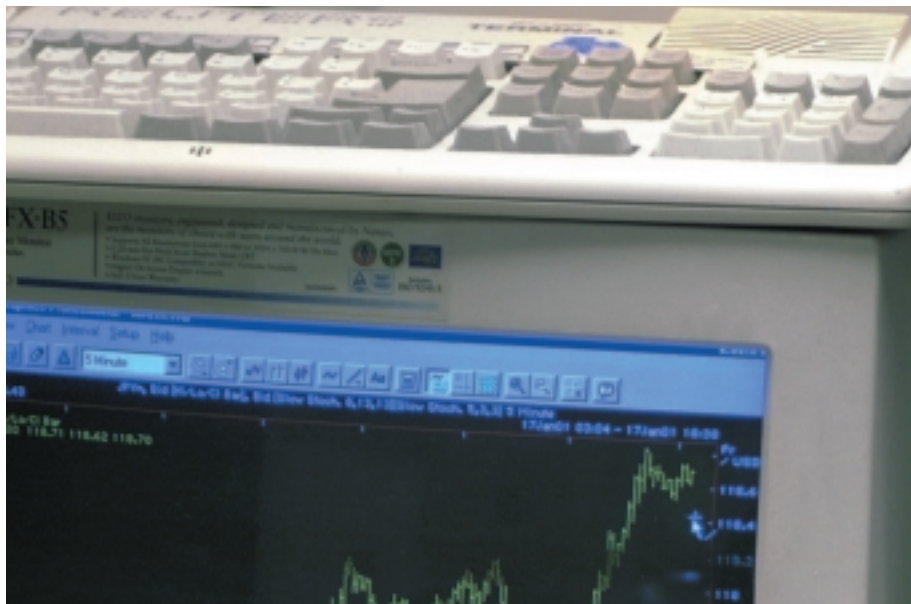
Ideal for entry-level backup, the HP StorageWorks DAT 40 autoloader offers a cost-effective backup solution for small to midrange servers. It provides the ease of unattended backup with a media management tape rotation scheme for scheduled back up of servers with 40 GB or less. If a tape is full, the backup will continue on the next tape, offering scalability and backup assurance. Available as an internal model, fitting into a standard, full-height bay, or as an external model, sitting on a desk, the DAT 40 autoloader offers “plug-and-play” compatibility with top servers, operating systems and backup software. HP StorageWorks DAT 40 autoloaders are:

- *Versatile*: supports HP servers as well as other industry servers
- *Affordable*: features labor-saving automated backup for small to midrange servers
- *Compatible*: supports “plug and play” functionality with servers, operating systems, and backup software
- *Scalable*: automatically backs up when the tape is full and continues onto the next tape
- *Adaptable*: available in internal, external, hot-plug, and rack-mounted models

## HP StorageWorks AIT 35 autoloader

The HP StorageWorks AIT 35 autoloader’s easy management features are ideal for departmental and workgroup backup where capacity, performance and cost are critical. The AIT 35 autoloader provides a slim-design, low cost tape automation solution for rotational backup of less than 70 GB, offering a total of 560 GB (compressed) storage capacity in a 1U rack-mount or tabletop form factor. Supporting one AIT 35 GB drive and 8 cartridges, the AIT 35 GB autoloader delivers industry-leading storage density. You receive rapid access to data with these key features and benefits:

- *Versatile*: supports HP servers as well as other industry servers
- *Efficient*: provides unattended/rotational backup solution
- *Compact*: features 1U rack-mount or tabletop form factor
- *Scalable*: holds 280 GB of data (native)
- *Easy to use*: uses the industry standard LVD SCSI Interface



## HP storage media and HP diagnostic tools and features

### HP storage media

You need to know your media gives you the best recovery in the industry. HP understands there usually are no second chances when it comes to data recovery. The tiniest imperfection could ultimately put someone out of business. Because HP doesn't take risks with the core of your business, we require higher quality standards and specifications than other manufacturers.

We carry out more rigorous and extensive media testing on HP StorageWorks drives than any other media brands. Our durability specifications are double those required to meet industry standards. Businesses are at stake, so we put all media through a succession of tough procedures that reflect how the product is used in real world environments.

#### Raising the bar on industry standards

Our innovative quality control facility features 20 custom-built test chambers in use 24x7. The test program involves over 70,000 tests and 1.3 million test hours annually. We push the technology to its limits, putting it through extreme conditions of temperature, altitude and humidity. HP branded media is designed, manufactured and tested as part of a complete system using multiple drives and pieces of media. These standards ensure consistent results using a variety of drive and cartridge combinations. We demand far more from our tape than is needed to qualify

for industry standard logos. And, because we are the leading data storage provider, and the only provider fully vested in the media business, we have greater insight into the real life conditions that drives and media must tolerate. Your critical data demands the highest standards, and before the HP name goes on, we exceed those standards.

#### Why choose HP storage media?

HP is a leader in storage supplies offering the largest storage supplies portfolio in the industry. Offering Ultrium, SDLT, DLT, DDS/DAT, AIT, Travan and MO. HP designs and tests media and drives to work together to give you a data backup solution with optimum performance and guaranteed compatibility. HP branded media is fully compatible with HP hardware products, while other manufactures may not be. Plus, HP works to ensure that all HP storage media is cross compatible in other manufacturer drives, libraries, autoloaders and jukeboxes.

When you choose HP media, you get irretrievability. Data is written and stored on the media, not the drive. HP understands data backup is only as good as the media's ability to restore, retrieve and protect data. This is why HP ensures its media works in tandem as part of a storage backup solution with the drive. This is why HP quality control requirements surpass industry standards. We always reject inferior media.

We work closely with suppliers to achieve unsurpassed quality. We are the only brand to perform such detailed checks to ensure all suppliers adhere to quality control programs. Plus, to ensure complete customer satisfaction on all HP storage supplies, we report incompatibility issues on non-HP platforms. And, because we are technology driven, HP invented or co-developed many of the leading storage technologies like: Ultrium, WORM magneto-optical and DDS/DAT. We invest over \$400 million annually in storage research and development.



HP storage media

HP is always one of the first brands to supply new mainstream media technologies. Our total storage solutions are easy to use, easy to purchase and easy to support... HP puts the solution together so you don't have to.

## HP StorageWorks Library and Tape Tools (L&TT)

HP knows you rely on your system to function at full capacity, and if downtime should occur, you need immediate corrective actions. HP answers this challenge with a diagnostic tool that's not only free, but sets industry standards in reliability and convenience. The HP StorageWorks L&TT is a single, convenient program that's a snap to install and simple to operate. L&TT's self-healing, proactive preventative maintenance and downtime analysis functions make quick troubleshooting a reality, and provide the following features and benefits:

- *Affordability*: provides HP customers a free download from the HP web site
- *Simplicity*: requires no training with an intuitive user interface that is easy to install and operate
- *Expansive*: delivers web-based smart firmware downloads, updates and notifications
- *Efficiency*: performs transparent checks and parallel updates on multi-drive devices using robust firmware downloads
- *Proactive*: executes automatic device failure analysis
- *Self-healing*: employs first level of failure analysis without HP involvement

- *Comprehensive*: generates key product information on support tickets and e-mails to appropriate support center

HP StorageWorks L&TT may be downloaded at:

**[www.hp.com/support/tapetools](http://www.hp.com/support/tapetools)**

## HP One-Button Disaster Recovery (OBDR)

Now, you can restore your entire system quickly and reliably by simply inserting the most recent backup tape and pushing one button on the tape drive. With this feature your HP StorageWorks tape drive will restore your operating system, configuration, applications, drivers and data files. There's no longer a need to search for software disks and manuals. Plus with downtime reduced, the cost implications are minimized. There's no need to make a new set of disaster recovery disks each time the network configuration is altered or a peripheral is added. Recovering from a disaster manually at a stressful time makes for an error-prone process. The sheer simplicity of OBDR means less human error. Backup and disaster recovery preparation — previously two separate tasks become one process. OBDR is the best disaster recovery product for small to medium networks. Simply push a button and breathe a sigh of recovery. HP has built OBDR into our family of HP StorageWorks DAT and Ultrium format tape drives. For a current list of servers, workstations, and software supported by this evolutionary feature, and tape backup compatibility visit:

**[www.hp.com/go/connect](http://www.hp.com/go/connect)**



“The backup speed [of the HP StorageWorks Ultrium 460e] is really tremendous. It’s much faster than our old DLT 8000 systems [from StorageTek].”

— Scott Blancett, manager in the IT department, Johns Manville

## Success stories – HP partner relationships that support success

HP offers you the following customer success story in hopes that it provides insight, information and solutions to help you in your investment decisions. HP believes in creating partner relationships that support IT managers for success.

### Johns Manville

This Denver-based manufacturer of building materials has been in business since 1858. Forty-five years of success has resulted in 52 facilities of varying sizes spread over North America, Europe, and China. With more than \$2 billion in annual sales, 9,000 employees, and some

120 servers in its corporate headquarters alone, Johns Manville gives top priority to data backup every night. Scott Blancett, a manager in the IT department, recognized that the company’s ever-growing backup needs were in desperate need of a high capacity, more efficient solution than the current three-year-old StorageTek DLT 8000-based libraries. So, Johns Mansville took the second-generation LTO (Linear Tape-Open) product, the HP StorageWorks Ultrium 460e, for a test-drive.

“The backup speed is really tremendous,” Blancett says. “It’s much faster than our old DLT 8000 systems.” This observation made Blancett’s decision to replace the company’s backup hardware an easy decision. He wants to buy automated, multi-tape libraries containing the HP StorageWorks Ultrium 460e drives later this year. With these, the company will need fewer machines to do the job. “Believe it or not,” says Blancett, “the cost, including three years of maintenance and support, will come out being less than paying for another three years of support and maintenance on our DLT 8000 machines.”

For more information on HP StorageWorks tape drives and autoloaders visit: [www.hp.com/go/tape](http://www.hp.com/go/tape)

© 2003 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft is a trademark of Microsoft Corporation in the U.S. and/or other countries.

5981-9162EN, 07/2003

