



For more information:
Robyn Eckard
Fleishman-Hillard, Inc.
213-489-8254
eckardr@fleishman.com

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION ADOPTS LTO ULTRIUM FORMAT AS WORLDWIDE TAPE STORAGE STANDARD

*Global Certification Marks Major Milestone For High-Performance
Tape Storage Technology Jointly Developed By HP, IBM and Seagate*

SILICON VALLEY, CALIF. — (November 12, 2001) — Hewlett-Packard Company, IBM Corporation and Seagate Removable Storage Solutions LLC, technology provider companies for the Linear Tape-Open (LTO) Program, today announced that the European Computer Manufacturers Association (ECMA), an international industry association dedicated to the standardization of information and communication systems, has officially adopted the LTO Ultrium format as a global industry standard for tape storage. The proclamation, made at the organization's 81st General Assembly in Geneva, Switzerland, signifies another major achievement for the LTO Program as the Ultrium format continues to gain worldwide acceptance and support among storage and network administrators.

"The ECMA certification solidifies the LTO Ultrium format's standing as the industry tape storage standard of choice for midrange network environments," said Bob Maness, director of World Wide Product Marketing for IBM's Tape Storage Products. "This milestone, coupled with the support of nearly every major player in the storage sector, establishes the LTO Ultrium format as a safe and reliable choice for increased usage around the world."

The ECMA approval applies to the physical and magnetic characteristics of LTO Ultrium tape cartridges, using magnetic tape 12.65 mm wide. The approval certifies the quality of LTO Ultrium recorded signals, including the recording method and format whereby data interchange is enabled between Ultrium drives through the use of LTO Ultrium cartridges. Information interchange between systems is enabled through the joint efforts of Hewlett-Packard, IBM and Seagate, which have established the interchange codes and specification for the structure and labeling of information on the media cartridges. The Ultrium format supports variable length logical records, high-speed search, and the use of algorithmic data compression.

Based on field-tested technology originating from Hewlett-Packard, IBM and Seagate, the Ultrium format is based on a four-generation roadmap that specifies a doubling of capacity and performance with each generation, combined with stringent requirements for backwards compatibility. LTO Ultrium provides greater benefits to tape users than other tape formats by providing an independent and competitive source of tape drives and media. Unlike other formats, LTO Ultrium is the only high capacity, high performance tape to allow for a wide range of product features from multiple storage vendors, with the integrity and reliability that an open format provides.

About ECMA

ECMA is an international industry association dedicated to the standardization of information and communication systems. For over thirty years ECMA has actively contributed to worldwide standardization in information technology and telecommunications. More than 270 ECMA Standards and 70 Technical Reports of high quality have been published by the organization.

ECMA Standards are developed by highly-qualified experts from the information technology and telecommunication industries with a commitment to providing consensus-based technical solutions ready for implementation in product development and conformity testing. The participation of the majority of leading information technology and telecommunication companies in ECMA ensures not only the acceptance of ECMA Standards in European and International standardization, but also their worldwide implementation.

ECMA Standards and Technical Reports are made available free of charge and copyright to all interested parties without restriction. For more information, please visit <http://www.ecma.ch/> or send an e-mail to documents@ecma.ch. Interested parties may also call (41) 22-849-60-00.

About Linear Tape-Open (LTO) Technology

LTO technology is a powerful, scaleable, open tape format created by technology providers Hewlett-Packard Company, IBM Corporation and Seagate Removable Storage Solutions to meet the growing demands of data protection in the midrange to enterprise-class server environments. This new generation of tape storage products delivers outstanding performance, capacity and reliability combining the advantages of linear multi-channel, bi-directional formats with enhancements in servo technology, data compression, track layout, and error correction.

The LTO Ultrium format storage solution is a single-reel, high-performance tape cartridge ideal for backing up, restoring, and archiving applications. As a market-leading tape technology for ultra-high capacity storage, the LTO Ultrium format is the only tape storage technology with a well-defined four-generation roadmap for growth and scalability – doubling speed and capacity with each new generation, and delivering significant data integrity improvements over current tape storage formats.

While the LTO Program gives licensees wide latitude in implementing mechanical and electrical designs, strict adherence is required to format specifications impacting the ability to read and write Ultrium format tape cartridges. Independent compliance verification is vital to meet the free-interchange objectives that are at the core of the LTO Program. With numerous compliance checkpoints for each LTO technology product, end-users and OEMs can be confident of data interchangeability between LTO products regardless of the manufacturer.

Ultrium tape mechanism and tape cartridge interchange specifications are available on a licensee basis. For additional information on LTO Ultrium technology, visit the Ultrium Web site at <http://www.ultrium.com>.

#

Note: Linear Tape-Open, LTO, and Ultrium are U.S. trademarks of HP, IBM and Seagate.