# ZERODOWNTIME®
# BACKUP+/iX

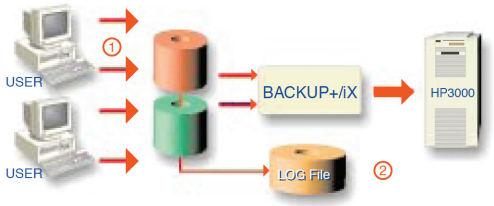
ORBiT SOFTWARE GROUP

Since 1985 and still today, the most advanced system backup solution for HP e3000 computers. When ORBiTeer's invented online backup capability for the HP MPE operating system back in 1988, there were many that said it could not be done. All these years later the functionality, security, performance and efficiency of BACKUP+/iX remain unmatched. Plus we have added LTO Ultrium support and AES 256-bit Encryption with Cipher Block Chaining. And to all this BACKUP+/iX is fully supported with our own 24 x 7 technical support team, backed by many decades of MPE experience.

**BACKUP+/iX offers:**

- ***AES 256-Bit Encryption***
- ***LTO Ultrium Support***
- ***Online Backups***
- ***ORBiT Library Manager OLM Module***
- ***Disk-To-Disk Store***
- ***Full, Partial, Interim And Incremental Options***
- ***Parallel Store/Restore***
- ***Data-Compression Options Of 2:1; 2.5:1; 4:1***
- ***Tape Manager & Librarian (TML)***
- ***Restore Wizard***
- ***Delta Backup***
- ***Append***
- ***Validate***
- ***Image Database Backup And Restore***
- ***Scan***
- ***File Buffer***
- ***Defragmentation***
- ***Disaster Recovery***
- ***Security and Reliability***

ZDT Online Store




ZDT Store Legend
① *Full read/write access to all files for users permitted during backup.*
② *All changes to data during backup recorded in log-file.*

Circa 1991 graphic

## DATA ENCRYPTION

In 2007 ORBiT released the exclusive capability for 256-bit Advanced Encryption Standard (AES) with Cipher Block Chaining Mode (CBC) for enhanced security, including Sarbanes-Oxley Act, Payment Card Industry (PCI) Data Security Standard, and HIPAA requirements.

## LTO ULTRIUM SUPPORT

BACKUP+/iX exclusively offers Linear Tape-Open (LTO) Ultrium capability for A and N class servers for faster and greater capacity backups.

## ZERODOWNTIME® ONLINE

Unlike all other so-called online backup solutions, BACKUP+/iX ensures Full Logical Integrity of your data for all files and applications by capturing all writes that occur during the back-up and posting them on restore. This exclusive "roll forward" technique results in a complete and accurate representation of the files as they appeared at the completion of the backup.

## ORBiT LIBRARY MANAGER (OLM)

OLM automatically selects and mounts media in automated tape libraries and autochangers, streamlining backup procedures.

## DISK-TO-DISK STORES

Files can be restored directly from the disk, and can be dumped to tape at any time.

## FULL, PARTIAL, INTERIM AND INCREMENTAL OPTIONS

In addition to full and partial backup cycles, other types of backups can be utilized on either a regular, periodic, or one-time basis.

## PARALLEL STORE/RESTORE

Storing/Restoring from multiple backup devices in parallel speeds up overall performance.

## DATA COMPRESSION OPTIONS OF 2:1; 2.5:1; 4:1

Compression reduces the amount of data transferred to tape or disk. This speeds up overall performance, and aids in achieving unattended backups by possibly reducing the number of tapes required.

## TAPE MANAGER & LIBRARIAN (TML)

Automates many manual functions and manages backups and the tape library, including extensive reports and backup statistics.

## RESTORE WIZARD

Permits files to be restored with no knowledge of which back-ups or tapes contain the files. (Restore Wizard is a part of TML).

## DELTA BACKUP

The idea of Delta backup is very simple, backup changes to files rather than changed files. This means a lot less data being backed up, therefore less time, storage, and resources.

### APPEND

Provides the capability to add a new backup to an existing backup set.

### VALIDATE

Validation identifies errors which may exist, and ensures that all files can be read.

### IMAGE DATABASE BACKUP AND RESTORE

IMAGE databases may be backed up using conventional STORE, but transaction logging recovery requires that three fields in the database root file — the store date, store time, and "dirty" bit fields — be updated to ensure recoverability by MPE/iX's DBRECOV program. By specifying the DBSTORE option of the STORE command, the files that comprise a database, including the root file, jumbo datasets, and third-party index (TPI) files, are stored. The root files of all databases are also updated as required for recoverability. Additionally, the DBSTORE option automatically forces a backup of all files that comprise the database if the root file is selected for store. This includes dataset files that were not modified and would otherwise be excluded by date restriction.

### SCAN

The secondary file scan is able to determine file attributes at the completion of the backup as well as properly handle dynamic files that have been created, purged, renamed, etc.

### FILE BUFFER

Aids in unattended backups by acting as a buffer to the tape drive. The result is that when the mounted volumes are full, the remaining data to be stored is written into the file buffer. Once the backed up files have been fully stored into the file buffer, they are released for normal user access. The data remaining in the file buffer is automatically written to tape when the next tape volume(s) are mounted.

### DEFRAGMENTATION

BACKUP+/iX is able to perform disk defragmentation during restore, whereby files are reallocated on restore into larger pieces and small chunks of disk space are recombined into larger pieces.

### DISASTER RECOVERY

Restores and recoveries can be performed onto any HPe3000 system, including those that are not licensed with BACKUP+/iX. This is accomplished by always writing an unprotected copy of its restore program at the beginning of every backup in MPE STORE format. Should the need arise, the BACKUP+/iX restore program is recovered first, and then run to restore the files.

### SECURITY & RELIABILITY

The most important aspect of a backup package is the integrity of the backups it creates. BACKUP+/iX not only contains extensive provisions for ensuring that backups are written properly and can be restored from, it also makes sure that IMAGE databases can be recovered from transaction log files (if Image logging is running) and sensitive backups can be kept secure. BACKUP+/iX contains facilities to ensure backup reliability, including integrity encoding and on-demand validation. BACKUP+/iX can on completion of a backup remount a tape and perform a total validation of all data written, ensuring recoverability. BACKUP+/iX additionally reports error and retry statistics, and allows acceptable tape error and retry thresholds to be specified to identify and reject bad tapes during a backup. Also included is the facility for recovering bad or corrupted tapes.

### *The History of ORBiT Software's BACKUP+/iX*

After several years of systems programming on the HP3000, the need for an improved backup tool became obvious to ORBiT Software's founder, Joerg Groessler. In 1983 Joerg began work on the first commercially available package to rival HP's STORE program. Under the working title of Advanced Backup System it was first marketed in 1985 under another name and sold several thousand copies. Joerg then formed the company Productivity Tools in England, which later became ORBiT Software, and began work on a project that would expand on the principles of Advanced Backup System. With the release of MPE/XL ORBiT recognized the trend toward faster systems and a significant growth in data volumes and determined that current backup technologies would not be able to keep pace. In response to this ORBiT decided to enhance it's product to perform system backup during normal read/write access with no restrictions on this operating system. The resulting product, officially named BACKUP+/iX, was released in the early 1990's.

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