



TOLIS Group, Inc.

The Backup & Recovery Experts

PRODUCT DATASHEET

BRU 17.0 BACKUP & RECOVERY UTILITY

Data Protection for UNIX and Linux Backup



BRU WORKSTATION, BRU DESKTOP, and BRU PERSONAL EDITION are the high-performance UNIX and Linux backup and recovery utilities designed for maximum reliability, speed, flexibility, and ease of use. By making UNIX backups easy, fast, and safe, it's much more than just a replacement for typical backup utilities. BRU is a complete solution with a multitude of options.

Since 1985, BRU's unique data format has been delivering backup reliability and data availability beyond that of any other backup product. Using BRU, you're assured each backup is 100% accurate.

THE BRU ADVANTAGE

The unique BRU format is the foundation of its industry-leading reliability. Each and every bit taken off the disk is audited until written through to the archive device onto the media. Users have multiple options to verify the backup's accuracy — including even performing the verification on a different machine. The BRU format also supports the maximum recovery of data should bits become corrupt during storage of the media. Unlike other products, BRU does not abort the recovery when bad bits are detected. Rather, the specific location detail is reported and mechanisms are employed to read past the corrupted data, and continue the restore.

PROTECT YOUR DATA WITH BRU

Using BRU, upfront you'll know the status of the backup — not when the data is needed the most at a critical time later. BRU employs mechanisms that allow you to verify the accuracy of the backup, either immediately following the backup, or off-line to shorten the backup window. You can even verify your backups on a different system! Knowing your backup is accurate provides peace-of-mind that you can successfully recover your data.

PRODUCT HIGHLIGHTS

Reliability - Failsafe mechanisms account for each and every bit backed up and recovered to deliver leadership data availability and overall reliability. BRU recovers the most data when other backup tools abort the restore.

Flexibility - Backup tapes can be verified on-line, off-line, on another system, even on a different platform to assure data can be accurately restored. Fully scriptable for the advanced user.

Fast - BRU's throughput is limited only by file system performance and tape technology used.

Easy - Easy installation, intuitive point-and-click interface for file and directory level backup and restore, and easy to schedule unattended backups.

Supports networked Windows, Windows NT, and Macintosh files on Linux systems through NetAtalk and Samba*.

Remote backups to tape devices located across the network*.

Quick File Access (QFA) on select platforms.

Works with removable disk technology, disk-files, MO, DVD, Jaz, Zip, SCSI tape devices and more.

Easy-to-schedule unattended backups.

Full backup and restore of raw partitions.

Handles special files skipped by most utilities.

CRU™ (Crash Recovery Utility) creates custom boot disks to easily manage a bare metal total system recovery on Linux and SCO OpenServer versions.

CRU supports HP's OBDR (One-Button Disaster Recovery) capability.

Built-in help pages.

Supports 64-Bit filesystems.

*Feature not available in BRU Desktop

EXCEPTIONAL RELIABILITY

–Data Verification. Advanced checksumming technology provides multiple options to proof the accuracy of the backup as a background task, reducing the backup window by 50%.

–Anytime Verify™. Allows you to re-verify your data at any time.

–Error Detection and Recovery. BRU implements powerful logic to circumvent corrupt data on damaged archives during a restore to return the most usable data possible when other backup tools simply abort the recovery.

–AUTOSCAN™ Verification. BRU will automatically scan each archive tape and verify it for errors immediately after it is written. Customer-proven detection of problems caused by hardware or software errors works like an "early warning system" to detect problems before they become serious-like a tape drive that is just starting to fail.

–Sparse Files. BRU will properly backup and restore large sparse files.

–Long Pathnames. BRU will backup and restore files with pathnames up to 1023 characters long. This is useful for networked systems or for filesystems with deep directories.

–Automatic Execution Logging. Because backups are serious business, you want to know immediately if anything went wrong. BRU automatically writes any warning/error messages to a special execution log file. The file also contains time-stamps of when BRU started and stopped.

BRU Workstation, Desktop and Personal Edition Feature

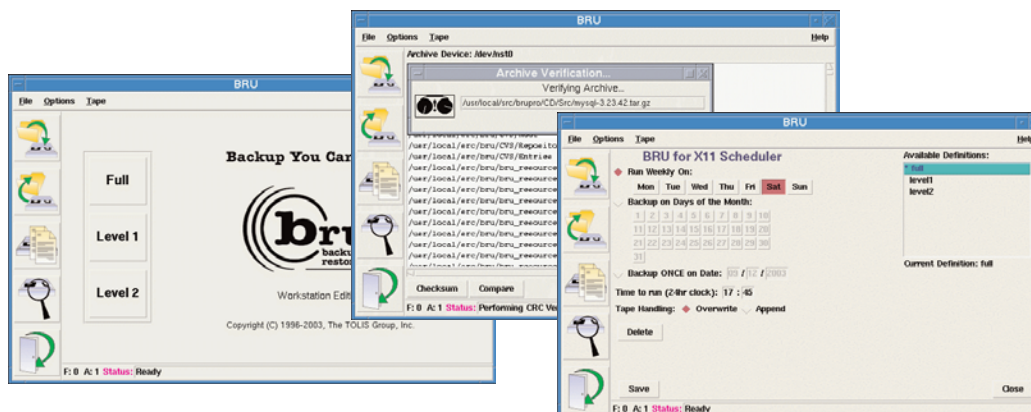
	<u>BRU</u>	<u>tar</u>
1. Graphical Interface Support	Y	N
2. Comparison Verification	Y	Y
3. Checksum-based Verification	Y	N
4. Recover from Corrupted Media	Y	N
5. Supports Raw Disk Backup and Restore	Y	N
6. Recognition of Media Errors During Backup	Y	N
7. File by File Data Compression	Y	N
8. Files over 2 GB Supported	Y	N
9. Tape Labeling	Y	N
10. Overwrite Protection	Y	N
11. Smart Restore on Live Systems	Y	N
12. Translate Files on Restore	Y	N
13. Restore Control for Overwrite of Existing Disk Files	Y	N
14. Full Operational Logging	Y	N
15. Automatically Fully Backward Compatibility	Y	N
16. Technical Support Ownership	Y	N
17. Backup Special Files (pipes, fifos, symlinks)	Y	N ₁

The structure of traditional tar and cpio archive formats, do not support the integrity of data during the backup or restore operation. In contrast, the BRU format accounts for every bit being backed-up and restored — reflecting backup science at its best. The protection of data, whether in the form of traditional text/number information or works of art, is too important to trust to a flawed approach.

₁ Some versions of tar back up special files

COMPLETE FLEXIBILITY

- Quick File Access (QFA) on select platforms provides faster access to files on tape to shorten restore times.
- Unattended Backups. A special background mode lets you schedule BRU to run under cron, allowing backups to be performed overnight.
- Support For Any Type of Device. BRU is device-independent and works with any native OS supported storage device. If your system can see it, BRU can write to it.
- Handles Special Files. BRU will backup and restore all types of files, including special device files, links (symbolic and hard), pipes, empty directories — all the files that are skipped by utilities like tar. BRU will backup and restore every file on your disk.
- Faster Crash Recovery. Since BRU will backup and restore all files, this saves time and makes it easier to restore your system in the event of a crash.
- CRU™ (Crash Recovery Utility) creates custom boot disks to easily manage a bare metal total system restore. CRU is available for Intel Linux and SCO OpenServer versions.
- Protective File Restore. Restores files only from the backup tape that is newer - protects you by NOT overwriting files that have been recently updated (unless you force it to overwrite all files).
- Easy Integration. Dozens of options and environment variables make it easy to include BRU as a shell script or menu system. With BRU, you can do backups your way — exactly how you want to do them.
- Point-and-click interface for file and directory level backup and restore, fully scriptable from the command line.
- Root-only Restore. Restores just the files in the root directory, excluding files from other filesystems.
- Translate-on-Restore™. Rename or move files when restoring.
- Smart Restore™. Restore active shared library and executable binary files without crashing the system.
- Multiple Volume Archives. With BRU, archives can span more than one tape, allowing you to do backups of any size.
- Faster Backups. BRU is "tunable" for peak performance, to allow your tape drive to run at its maximum potential.
- Back Up Live Filesystems. It's not necessary to go into single-user mode. You can backup all the mounted filesystems or choose individual filesystems.
- Incremental/Differential Backups. Sometimes you don't want to back up everything. You can save time (and media) by backing up only the files that have changed. Other options let you select by owner or type of file.
- Raw Data Partitions. Backup and restore raw data partitions (often used by database programs like Oracle).
- Select by Directory Depth. With this option, you can specify how many directory levels you want, which enables you to backup or restore ONLY the files in a directory, but NOT the files in the directories below it.
- Include/Exclude Files. You can direct BRU to include or exclude certain files or directories in a backup (or restore). By specifying certain patterns (wildcard or regular expressions), you can perform customized backups.
- Data Compression. BRU can save space on your archive media by compressing data as part of the backup operation. Files are usually compressed by 10% to 90% (depending on the type of data). Like all BRU data, the compressed files are saved in a special error-detection format. Compression is done in memory (no temporary disk space is used), so files of any size can be compressed. BRU speeds up the backup by not attempting to compress files that are already compressed.
- Works with all tape drive formats, removable disk technology, disk-files, MO, DVD and more.
- BRU also properly backs up filenames that include strange characters and spaces.



BRU's convenient single-window layout displays all backup and recovery tools in an easy to follow interface. From the BRU interface, point-and-click simplicity is brought to most typical backup and restore operations, including easy scheduling for unattended backups.

NETWORK SUPPORT*

- Network Backups. BRU supports many different network protocols, including NFS, SMB and NetAtalk.
- Remote Tape Drives. Write backup data across the network to a tape drive located on another machine.
- Properly backs up and restores locally-mounted and remote filesystems.

* Network functionality is not available in BRU Desktop

RELIABLE TAPE MANAGEMENT

- Tape Directory. A quick preview of a backup tape's contents eliminates the need for a time-consuming read.
- Tape Labeling. For easy identification, all tapes are automatically labeled with date/time information when BRU writes to them. An optional label containing up to 63 characters can also be specified by the user. To make sure the correct tape is used, label functions can also be used when restoring.
- Overwrite Protection. Protects against accidentally overwriting a recent backup tape (like the one from last night).
- Tape Stacker Interface. Use with any sequential tape loader or jukebox.

EASY-TO-ACCESS-SUPPORT

- Built-In help Pages. Useful when you can't find the manual.
- Backup Assistance Hotline. If you need assistance, we're here to help. Expert technical support FREE for the first 30 days, renewable in low-cost, one-year increments.
- Annual support agreements provide unlimited phone, fax and e-mail support as well as free updates and special discounts on product upgrades.

AWARD WINNING BACKUP

- Linux Journal Reader's Choice Favorite Backup Utility, four years running
- Linux Magazine Editor's Choice Award
- LinuxWorld Conference & Expo Show Favorites: *Utilities* • *File Storage/Recovery Product* • *Software Utilities* • *Best of Show*

BRU Solutions for Linux and UNIX Systems

For Data Center or Commercial Office Use:

BRU Workstation

Available for most x86 UNIX or UNIX-like systems, including:

Linux x86/alpha/PowerPC/ia64/mips
SCO OpenServer
SCO Open UNIX (formerly UnixWare)
BSDi/FreeBSD/OpenBSD
Solaris x86 8/9
Solaris SPARC 2.5/7/8/9
HP-UX
AIX
IRIX
Tru64 Alpha
DG/UX AViiON m88k

For Small Office/Home Office (SOHO) or small businesses:

BRU Desktop

For single systems with a locally attached archive device.

Available for most x86 UNIX or UNIX-like systems, including:

Linux x86/alpha/PowerPC/ia64/mips
SCO OpenServer
SCO Open UNIX (formerly UnixWare)
BSDi/FreeBSD/OpenBSD
Solaris x86 8/9
Solaris SPARC 2.5/7/8/9
HP-UX
AIX
IRIX
Tru64 Alpha

For Your Home:

BRU Personal Edition

For non-commercial, non-institutional, personal, home use only.

Available for most UNIX or UNIX-like systems including:

Linux x86/alpha/PowerPC/ia64/mips
BSDi/FreeBSD/OpenBSD
SCO OpenServer
Solaris x86 8/9/SPARC 2.5/7/8/9

TOLIS also provides backup solutions for client/server-based network topologies and Mac OS X systems.



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