Tape Subsystem Administration [1]

This chapter introduces the tape interfaces and administration commands.

1.1 Tape interfaces

The tape subsystem supports two interfaces: the tape daemon-assisted interface and the character-special tape interface. This manual describes the tape daemon-assisted interface, which is referred to as the tape subsystem throughout the manual. It is also called the Tape Management Facility.

The character-special tape interface and the tape daemon-assisted interface may operate concurrently. Devices for both interfaces are defined in the same configuration file and are defined identically; that is, the interface is not identified in the configuration file. For information on the character-special tape interface, see the *Tape Subsystem User's Guide*, Cray Research publication SG–2051.

Warning: Starting with the UNICOS 10.0 release, the term *Cray ML-Safe* replaces the term *Trusted UNICOS*, which referred to the system configuration used to achieve the UNICOS 8.0.2 release evaluation. Because of changes to available software, hardware, and system configurations since the UNICOS 8.0.2 system release, the term *Cray ML-Safe* does not imply an evaluated product, but refers to the currently available system configuration that closely resembles that of the evaluated Trusted UNICOS 8.0.2 system.

For the UNICOS 10.0 release, the functionality of the Trusted UNICOS system has been retained, but the `CONFIG_TRUSTED` option, which enforces conformance to the strict B1 configuration, is no longer available.

1.2 Administration commands

This section briefly describes tape subsystem administration commands common to all Cray Research systems.

`tpapm`(8) — The `tpapm`(8) command requests that the tape daemon mount a volume (identified by the volume serial number (VSN)) on any available drive that may be serviced by an autoloader. This function is useful when you must premount volumes required by some program (for example,

	a backup) that is performing a multivolume operation, and the required volumes reside in the autoloader storage unit.
`tpbmx`(8)	The `tpbmx`(8) command displays tape device information that may be useful to operators and system administrators. This information comes primarily from the `tpdtab` structure for each device in the kernel (the definition of `tpdtab` is in the file `/usr/include/sys/tpd.h`).
`tpclr`(8)	The `tpclr`(8) command clears the last pending request on the data path to a tape drive. All tables and data associated with that device are cleared, if possible.
`tpconf`(8)	The `tpconf`(8) command converts a tape daemon configuration file to binary format for the tape daemon to process when it is started.
`tpconfig`(8)	The `tpconfig`(8) command configures tape devices up and down, changes the status of the associated media loaders, and assigns a media loader to a device and reassigns a device group to a device.
`tpcore`(8)	The `tpcore`(8) command initiates the tape subsystem monitor.
`tpdaemon`(8)	The `tpdaemon`(8) command starts the tape daemon. It provides the routing and control of the various components used in tape resource management, device management, volume mounts and dismounts through operator communication or autoloader requests, label processing, volume switching, accounting, security, and error recovery.
`tpdev`(8)	The `tpdev`(8) command displays the status of tape devices and associated components of the tape data path.
`tpdstop`(8)	The `tpdstop`(8) command stops the tape daemon in an orderly fashion.
`tpformat`(8)	The UNICOS `tpformat`(8) command reserves the specified resource, mounts the requested

	volume, and issues the volume format request to the ER90 device.
`tpfrls`(8)	The `tpfrls`(8) command lets the operator release the tape reservations made by a user. `tpfrls`(8) also clears all active tape devices and kills the user processes using the tape devices.
`tpgstat`(8)	The `tpgstat`(8) command displays the reservation status for each device group in the system for each tape user.
`tpinit`(8)	The `tpinit`(8) command initializes the tape subsystem.
`tplabel`(8)	The `tplabel`(8) command labels tapes and may perform other functions depending on the interface being used.
`tpmls`(8)	The `tpmls`(8) command displays the status of the tape loaders in the system.
`tpmql`(8)	The `tpmql`(8) command displays the current mount request list for all users who have completed initial mount processing and have a mount request pending.
`tpscr`(8)	The `tpscr`(8) command returns volumes allocated by a user to the loader scratch pool.
`tpset`(8)	The `tpset`(8) command sets features for the tape daemon. It changes the status of automatic volume recognition (AVR), the status of front-end servicing (FES), the status of the Cray/REELlibrarian (CRL), the status of overcommitted mount requests, the status of tracing for the tape daemon, or the destination of tape operator messages issued by the tape daemon. All of these features except tracing can be set in the tape configuration file. `tpset`(8) returns the current status of all features.
`tpu`(8)	The `tpu`(8) command is used by the system operator to unload tapes. This command has no effect on a tape that is currently in use. It is most

useful for unloading tapes and freeing tape drives on systems running with automatic volume recognition (AVR).