To: MTB Distribution

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Subject: Multics MR8.0--copy_dump_tape/verify_tape_copy

INTRODUCTION

    The purpose of this MTB is to describe the proposed
software for producing and verifying dump tape copies. It is
intended that the new package essentially duplicate the
functionality of the current package. The current package has
short commings in design and maintainability, but provides the
desired functionality for producing release tape copies. The
requirement to upgrade the old software stems from the fact that
the currently used package is written in a style and fashion which
no longer meets Multics coding standards for maintainability or
support. For example, the current implementation utilizes the old
tape_ dim, and the obsolete ios_ i/o interface.

    The new implementation will utilize the tape_mult_ dim, and
the iox_ i/o interface. The use of iox_ and tape_mult_ is in
keeping with current Multics supported software standards.

FUNCTION

    The copy_dump_tape command makes tape copies of an original
dump tape called the master. The command copies files onto as
many reels of tape as is necessary. If an end of tape condition
occurs while a file is being copied, then that file is rewritten
at the beginning of the next tape reel.

    The verify_tape_copy command compares the tape copies against
the master tape or against any of the other copies made from the
master tape.

    Both copy_dump_tape and verify_tape_copy process one record
at a time from each of the two reels mounted. Copy_dump_tape
reads a record and then immediately writes out onto the copy reel
currently mounted. Verify_tape_copy reads a record from each tape
and compares them before going on to the next pair. Temporary
buffers are created in the user's working directory. Records are
read into, and written from these temporary buffers. When the
tape copying or verifying is completed, the temporary buffers are
deleted from the user's working directory. There must be suffi-
cient quota on that directory to permit the growth of each of the
two buffers to 255 records to handle the largest possible
segments. Both commands are provided with cleanup handlers to

restore the user's process as is the requirement of all supported
Multics commands and tools.

Name: copy_dump_tape, cdt

This command provides the method to generate tape copies of an original master tape.

Usage

copy_dump_tape {-control_args}

where control_args are selected from -in or -out. If -in or -out is not provided, the command will query the user for tape labels. For example: copy_dump_tape -in I1 I2 I3 -out 01 02 03

<u>Name</u>: verify_tape_copy, vtc

    This command provides the method to verify tape copies of an original master tape.

<u>Usage</u>

    verify_tape_copy {-control_args}

where control_args are selected from -master or -copy. If -master or -copy are not specified, the user is queried for the tape labels of the master   and copy tapes.   For example: verify_tape_copy -master M1 M2 M3 -copy C1 C2 C3