

To: PDO & Multics Distributions
From: Dennis Capps
Date: January 7, 1974
Subject: Tape Mount Project Progress Report

But that I am forbid
To tell the secrets of my prison-house,
I could a tale unfold whose lightest word
Would hallow up thy soul, freeze thy young blood,
Make thy two eyes, like stars, start from their spheres,
Thy knotted and combined locks to part
And each particular hair to stand on end,
Like quills upon the fretful porpentine:
But this eternal blazon must not be
To ears of flesh and blood. (1)

The first step in the installation of the tape mount package was completed with the installation of hardcore system 21-2. This included changes to `tape_`, `tdcm`, and `tape_init`. A week or two later `tape_` was pulled due to the discovery of gross errors in a new module, `tape_mount_label_`. The origins of this snafu are to be found in the history of this ill-fated project, unwarranted trust of my predecessor, and a desire to be done as soon as possible.

Since then, Bill Silver, who was working on `tape_` anyway, has rewritten `tape_mount_label_`. In addition, the last vestiges of DIM-dependent code have been removed from the tape mount package and put into `tape_` where they belong (`tape_labeler_`).

A change in the communication protocol between the user process and the initializer ought to have gone smoothly. However, I spent a week tracing down a bug which turned out to be a typing error in the source of an installed hardcore gate. Next there was an error in the temporary `tape_labeler_` that I made while waiting for Silver to complete his changes to `tape_`. All of this was exacerbated by my relative inexperience using the development machine. All was not lost, however; I found and corrected some minor bugs along the way.

Six weeks ago I had a version that worked. Today I have a version that works (he said, crossing his fingers and hoping that his next development run would not founder on something that his ring 4 testing had not uncovered). With the addition of a few

(1) Shakespeare, W., Hamlet, Prince of Denmark

default and cleanup handlers it can be installed and used.

Several improvements remain before the project can be considered entirely finished:

1) A scheme is needed by which we can reduce the number of non-zero-length vds.

2) Several sections would be more easily maintained and more installation flexible if made to depend on tables rather than on information coded into the programs.

3) A remount entry to facilitate multi-volume files.

4) Automatic assignment of generic tapes by symbolic name.

5) `tape_volume_access_` to use new acl primitives.

PROJECT AREA

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
tape_volume_access_ define access codes and implement	DC				Done
nstd Modify to call new package	THVV				Done
tape_path_name_ Revise to reflect current state and simplify calling sequence	DC				Done
Mount request state 5. Modifications to tape_mount_, tape_opr_ , and tape_master	DC				Done
tape_mount_\$mount_check Parameter to inform whether tape & drive still attached	DC				Done
mmsg_access_ Modify to only manipulate message segments	DC				Done
tape_mount_util_ Require authentication if label not checked, label check if no authentication	DC				Done
tape_mount_util_ Code to call ANSI label checker	DC				Done
tape_mount_util_ Code to handle a tape which does not yet have a label	DC				Done
Program to generate gummed labels	THVV				Done
tape_ Final debugging	DC	8/20/73 8/20/73	8/31/73 9/1/73		Done
tdcm security bug Give Grady enough info to find	DC	9/10/73	9/11/73		Done

PROJECT AREA

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
Clerical work of hardcore submission	DC		9/25/73		Done
vds_manager_	DC	10/2/73 10/2/73	10/4/73 10/29/73		Done
tape_register	DC	10/4/73 10/10/73	10/9/73 10/29/73		Done
Settle on qualifiers Produce and incorporate include files	DC	10/10/73	10/29/73		Done
Reorganize tcs & vds	DC	10/14/73	10/29/73		Done
Move parser for qualifiers to ring 4	DC	10/10/73	10/29/73		Done
tape_registration_change tape_registration_print (so owner can modify registration)	DC	10/29/73 10/29/73	10/30/73 10/31/73		Done
Testing	dc	10/31/73 10/31/73	11/7/73 11/30/73		Done
Mechanism so label checker for DIM can pass information to the DIM	DC, JP, THVV	11/12/73 11/12/73	11/12/73 11/12/73		Done
Code for above	DC	11/12/73 -----	11/13/73 -----		Not needed
Change communication protocol so that mount message is constructed on op side	DC	11/14/73 11/27/73	11/19/73		Awaits final Dev test
Reorganize TCS in conjunction with above	DC	11/14/73 11/27/73	11/19/73		Ditto

PROJECT _____ AREA _____

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
not_yet_labeled to make sense when reading	DC				Done
Mount package to issue set density command	DC				
Cleanup handler in tape DIMs	DC				
Default handlers for mount, mount_check, dismount, yds_manager, tape volume access	DC				
Make sure new version of nstd_has latest calling sequences	DC				
Registration (exec_com)	DC, RAR, Tape Librarian				

PROJECT _____ Later _____ AREA _____

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
tape_path_name_	DC				Started
tape_mount_r4util_\$parse					
Make table driven					
tape_labeler_	DC, Silver				Silver is doing this
tape_mount_\$remount	DC				Written
Automatic assignment of generic tapes by symbolic name	DC				
Scheme to minimize the number of non-zero-length vds	DC				
Put ANSI label in multics label record					
tape_volume_access_ to use new ACL primitives					

GROUP _____ Tape Mount Package _____ DATE Jan 7, 74 _____ PAGE 1 / 1

PROJECT _____ Documentation _____ AREA _____

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
Hardcore modules	DC		9/23/73		Done
TOS Document for users explaining new tape mounting protocol	DC				Convert msb-69?
MOSN for operations explaining new tape mounting protocol	DC				
SPS	DC	11/21/73			Well under way
MPM	DC	11/21/73			
progress reports	DC	ongoing	task		
Clerical work of online submission	DC	ongoing	task		

