

Roach

TO: PDO Staff
FROM: Janice B. Phillipps
DATE: January 7, 1974
SUBJECT: ANSI Tape DIM Progress Report

Current Status

Version 1 of the ANSI DIM is coded and testing has begun. Dennis and I are working out testing procedures to use tape mount package and a schedule for sharing the testing environment. Documentation for the DIM slightly less than half completed.

The next two weeks will be devoted to testing the DIM and to writing documentation.

Other Plans

Very little code remains to be written to handle volume switching in the DIM. A new entry in the tape mount package is needed to mount another volume on the assigned drive and an entry in volume_ctlr_ to access the tape mount entry and to fix up the necessary data items that are involved in volume switching. The plan is to rename the per volume data bases so as to maintain data for a file spanning volumes. Depending how the testing goes, this feature possibly might be included in version 1 of the DIM.

A summary of features and restrictions of this ANSI Tape DIM version 1 follows.

Multics Project internal working documentation. Not to be reproduced or distributed outside the Multics Project.

Version 1 of ANSI Tape DIM Will Support the Following Features:

recording techniques: 9-track 800bpl, 1600bpl
record formats: U-format.
character codes: 8-bit ASCII, EBCDIC
access control: restricted to a per-volume basis.
tape organization: single file volumes
multi-file volumes
tape labels read/written: VOL1 HDR1 HDR2 EOF1 EOF2 (EOV1 EOV2)
tape labels passed over: JVLn
HDR3 - HDR9
UHLn
EOF3 - EOF9
UTLn

Information to be supplied at attachment: attachment mode
volume serial number (reel id)
file name
file number (may be zero)
recording density

e.g. 070064/fileA:0:d=800

detachment disposals: unload
rewind
reread
leave
error recovery: backspace record and retry n-times

Mounting and positioning: Volumes will be automatically mounted and files will be automatically positioned.

Version 1 ANSI Tape DIM Restrictions:

- I/O will be synchronous only.
- Only one character code per volume allowed.
- No multi-volume files.

No multi-file multi-volumes.

No binary files, only character files.

VOL1 HDR1 HDR2 EOF1 EOF2 labels required.

No support for user volume labels (UVLn) or user file labels (UHLn or UTLn).

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TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
VOL1_labeler_\$nst_ibl_ck	JP	07/25/73	08/07/73		Done.
VOL1_labeler_\$read_ibl	JP	07/09/73	08/22/73		Done.
VOL1_labeler_\$write_msi_insert	JP	07/23/73	08/22/73		Done.
VOL1_labeler_\$write_ibl	JP	07/23/73	08/22/73		Done.
VOL1_labeler_ ; add code to Identify and write DOS volume label.	JP	08/21/73	08/22/73		Done.
VOL1_labeler_ ; rework to use 9-mode.	JP		11/21/73		Done.
sync_tapelo_\$read	JP	07/16/73	08/22/73		Done.
sync_tapelo_\$write	JP	07/16/73	08/22/73		Done.
sync_tapelo_\$write_ibl	JP	08/06/73	08/22/73		Done.
sync_tapelo_\$request_status	JP	10/29/73	10/29/73		Done.
sync_tapelo_\$write_fm	JP	07/16/73	08/22/73		Done.
sync_tapelo_\$forward_one_record	JP	07/27/73	08/22/73		Done.
sync_tapelo_\$forward_one_file	JP	07/30/73	08/22/73		Done.
sync_tapelo_\$forward_one_file	JP	07/30/73	07/31/73		Done.
sync_tapelo_\$forward_one_file	JP	08/06/73	08/22/73		Done.

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TASK DESCRIPTION	PERSONNEL	SIARI	FINISH	M-W	CHANGES-STATUS
sync_tapelo_back_one_record	JP	07/31/73	08/01/73		Done.
sync_tapelo_back_one_file	JP	08/06/73	08/22/73		Done.
sync_tapelo_srewInd_unload	JP	08/02/73	08/03/73		Done.
sync_tapelo_srewInd_notunload	JP	08/06/73	08/22/73		Done.
sync_tapelo_sreset_status	JP	08/06/73	08/22/73		Done.
sync_tapelo_serase_tape	JP	08/20/73	08/22/73		Done.
sync_tapelo_sset_800bpl	JP				Done.
sync_tapelo_sset_556bpl	JP				Done.
sync_tapelo_sset_200bpl	JP				Done.
sync_tapelo_sset_1600bpl	JP				Done.
Establish an environment in which to check out all entries of sync_tapelo_ to test the moving of tape, reading and writing.	JP	08/06/73	09/05/73		Done.
Establish an environment in which to check out all entries of VOL1_labeler_ in the ASCII case only. This will be a check out of all the DIM's ring 1 interface.		08/23/73	09/30/73		

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TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
cv_chrs	JP				Recorded to use 9-mode. Will put in code to use translate when EIS fixed. Then it will be more efficient.
astd_cv_chrs_data\$a_to_E	JP		11/29/73		Coded and tested.
astd_cv_chrs_\$IA_to_A	JP				Yet to code.
Set up test for tape controller nine mode operation.	JP	08/08/73	08/08/73 09/15/73		Done.
Create Include files for ANSI volume and ANSI file labels.	JP		07/13/73		Done.
Create Include files for OS and DOS volume labels.	JP	07/13/73	08/20/73	08/22/73	Done.
Create Include files for OS and DOS file labels.	JP	08/11/73			OS labels 1/2 done. DOS labels yet to do.
make_labels_\$make_hdrst compose ANSI file header labels for output.	JP	07/11/73	08/02/73		Done.
make_labels_\$make_eofst compose ANSI trailer labels for output. Detect if volume switching coming and switch labels to EOVs.	JP	08/02/73	12/20/73		Done.
make_labels_\$ compose OS and DOS file labels for output.	JP	08/02/73	12/20/73		Yet to code.
volume_cflr_\$attach	JP		11/19/73		Done.

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
volume_ctr_\$detach	JP		11/30/73		Done.
volume_ctr_\$next_volume: entry to ask user what next volume to be mounted, if any.	JP	12/27/73	12/27/73		Done.
volume_ctr_\$chng_volume: entry to do volume switching for multi volume files.	JP	01/03/74	01/10/74		Design worked out. Will need new entry in tape mount package to remount using same drive.
file_ctr_\$open	JP		12/22/73		Done.
file_ctr_\$close	JP		11/30/73		Done.
file_ctr_\$force_close: force closing of a file and unloading the volume.	JP		12/05/73		Done.
file_ctr_\$order	JP		01/02/74		
file_ctr_\$getsize	JP		11/09/73		Coded and partially tested.
irec_ctr_\$write_ibls: entry to put out labels out onto tape.	JP		12/30/73		Done.
irec_ctr_\$read: reads U-format records.	JP		12/21/73		Done.
irec_ctr_\$write: writes U-format records.	JP	08/09/73	10/10/73		Done. Calls sync_tape0_directly. Version 2 will call phys_record_ctr_.
irec_ctr_\$write: writes U-format records.	JP	10/05/73	12/02/73		
irec_ctr_\$write: writes U-format records.	JP	10/01/73	11/14/73		Done. Calls sync_tape0_directly. Version 2 will call
irec_ctr_\$write: writes U-format records.	JP	10/05/73	12/02/73		Version 2 will call

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TASK DESCRIPTION	PERSONNEL	SIARI	FINISH	M-W	CHANGES-SIARIUS
Write transfer vector for DIM: astd_alm.	JP		01/04/74		phys_record_ctr_.
phys_record_ctr_\$read	JP, FC	10/01/73 10/05/73	11/26/73		Frank Canali will continue on.
phys_record_ctr_\$write	JP, FC	10/01/73 10/29/73	11/26/73		Frank Canali will continue on.
Testing of version 1 of the ANSI DIM in ASCII.	JP	10/01/73 01/05/74	01/10/74		Testing is under way.
Documentation -- SPS and MPM sections.	JP		01/15/74		Continuing task. Most modules outlined.