

DATA CENTER OPERATIONS BRANCH

NDS OPERATIONS PROCEDURE MANUAL
NO. P-I013

SYSTEMS SW & HW
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INDTERDATA MINI BACKUP PROCEDURE

SYMBOLIC TITLE: N/A
ORIGINATOR:

~~ADMINISTRATIVE-INTERNAL USE ONLY~~

P-1013

PROCEDURES FOR RUNNING THE TAP BACKUP
ON THE INTERDATA MINICOMPUTER

The tapes to be used for the mini are stored in the gray cabinet under GEN1 and GEN2 on the second shelf. The first shelf contains extra tapes if needed.

GEN1 will be the latest and GEN2 will be the oldest. Remove GEN2 from tape rack, these will be the tapes used for back up. Move GEN1 tape to GEN2 place in rack. Remove old labels on tapes to be used for back up. Insert write ring into tapes before mounting on servo. Labels should read as follows:

TEAM: _____ DATE: _____
FULL SYSTEM BACKUP
BLK SIZE = 12K
REEL _____ OF _____

Mount Reel 1 on servo marked MAG1. To mount tape on servo, thread tape on take up reel by following the diagram on the servo. After tape has been threaded, depress POWER switch on servo and depress the LOAD switch. After the tape is at load point the following lights should be on: (1) POWER, (2) LOAD, and (3) ON-LINE.

INSURE PRINTER IS ON-LINE BEFORE LOADING CARD DECK

Now you are ready to load the attached card deck. Place backup cards into the hopper of the card reader, no blank cards should be preceding card deck. Depress "POWER" switch and depress "RESET" switch. Enter CR: on console and hit the RETURN KEY on console. This will start reading the cards and writing on Reel 1. When the program has finished writing Reel 1 the program will rewind the tape back to load point, hit reset and rewind on servo, dismount reel 1 and mount reel 2. On the console the program will be paused:

.BG: PLEASE MOUNT TAPE NUMBER 2
.BG: TASK PAUSED

After Reel 2 is mounted (insure write ring is in) type on the console the following command:

T .BG;CO and hit the RETURN KEY

This will continue the program. Repeat the above instruction for Reel 3 and so on.

After this backup program has copied off all of the info, it will do a verify. This means that data on the input device (disc pack) and output device (mag tape) is verified. If the data does not verify, the non-verifying records from both files are output to the list device (printer) along with an error message. *If you get an tape parity error will verify see page 2 under error conditions.*

After the program has written the last tape a message will print out on the console:

.BG: OPTION VERIFY
.BG: PLEASE MOUNT TAPE NUMBER 1
.BG: TASK PAUSED

Mount Reel 1 and type T .BG;CO (hit RETURN KEY, repeat until program stops). Message on console will be:

.BG END OF TASK 0

Dismount tapes and store in cabinet in GEN1 slot.

Save output from printer and store with tapes.

This is done by hitting the ON/OFF LINE SWITCH on printer. Then hit TOP OF ~~FROM~~ until paper can be removed. Then hit the ON/OFF LINE.

Also attached is console listing of this job ran to completion without any errors.

*While running backup on the New system
Run PURLOG on all 4 production systems*

*To run this program enter the following command
on the console*

PURLOG C/R

*See pgs 9.13 of the operator manual for more
detail*

ERROR CONDITIONS

1. If MAG TAPE does not have a write ring, insert write ring and type

T .BG;Co (hit RETURN KEY)

2. If you get a tape parity error status 82 the program will pause. The program will have to be started from the beginning. Enter the following commands thru the console:

T .BG;CA (hit RETURN KEY)
MA DISC:,OFF

Reload card deck and start from the beginning. Replace bad tape with another tape and label bad tape as: BAD TAPE PLEASE CLEAN.

3. If any disc error occurs just leave system as is until someone from the Mensuration Section comes in on the next normal work day. The above also goes for any other problems that are not explained.

4. If Printer is not on-line the following message will type out on console:

.BG:I/O ERROR LU=7 STATUS=AO ON LP:

.BG: Tape Paused

Action to be taken - put printer on-line and continue the program.

T .BG

CO

This will continue the program.

```

CR:
*SCOPY
*****
**      SYSTEM BACKUP  -  ALL FILES SAVED AND VERIFIED
*****
**
*MARK DISC:,ON,,CD=1000
*DISC:   MT32   CDIR
*LOAD .BG, BACKUP, 300
*T .BG
*ST ,IN=DISC:,OUT=MAG1:,VE,SKIP,LIST=LP:
*05:40:14 .BG:OS/32 BACKUP 01-00
*06:06:13 .BG:PLEASE MOUNT TAPE NUMBER 2
*06:06:15 .BG:TASK PAUSED
*T .BG;CO
*06:30:30 .BG:PLEASE MOUNT TAPE NUMBER 3
*06:30:32 .BG:TASK PAUSED
-----
*T .BG;CO
*06:52:19 .BG:OPTION VERIFY
*06:52:20 .BG:PLEASE MOUNT TAPE NUMBER 1
*06:52:22 .BG:TASK PAUSED
*T .BG;CO
*07:21:06 .BG:PLEASE MOUNT TAPE NUMBER 2
*07:21:08 .BG:TASK PAUSED
*T .BG;CO
*07:44:44 .BG:PLEASE MOUNT TAPE NUMBER 3
*07:44:45 .BG:TASK PAUSED
*T .BG;CO
*07:57:04 .BG:END OF TASK 0
*REW MAG1:
*MARK DISC:,OFF
*$EXIT
*

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P-1013

RTMS *INTERDATA Mini Backup*
PROC.

9/17/82

INSTRUCTIONS FOR RUNNING BACKUP ON THE PRODUCTION SYSTEMS

EACH PRODUCTION SYSTEM SHOULD BE BACKED UP ON A WEEKLY BASIS. TWO GENERATIONS OF BACKUP TAPES ARE SAVED IN THE CABINET. WHEN THE BACKUP IS SUCCESSFULLY COMPLETED THE GEN1 TAPES SHOULD BE MOVED TO THE GEN2 SLOT AND THE NEW BACKUP TAPES SHOULD BE PLACED IN THE GEN1 SLOT. THE OLD GEN2 TAPES SHOULD BE PLACED ON THE TOP SHELF FOR FUTURE USE AS SCRATCH TAPES. LABEL THE NEW BACKUP TAPES WITH THE PRODUCTION SYSTEM NUMBER AND THE DATE AND TIME THE BACKUP WAS DONE.

TO BACKUP A PRODUCTION PTMS SYSTEM THE FOLLOWING STEPS SHOULD BE FOLLOWED:

1. INSURE THAT NO DATA IS QUEUED TO THE MINI PORTS ON THE UNIVAC PRODUCTION SYSTEM. THE MINI-C/SP PORTS ARE:

MC7A02 - PRODUCTION SYSTEM 1
MC7A03 - PRODUCTION SYSTEM 2
MC8A02 - PRODUCTION SYSTEM 3
MC8A03 - PRODUCTION SYSTEM 4

IF ANY DATA IS QUEUED TO ANY MINI YOU MUST ACQUIRE THIS DATA BEFORE RUNNING BACKUP. TO DO THIS, ENTER

LOADCSPT

ON THE APPROPRIATE MINI. THIS WILL SEND A REQUEST TO THE UNIVAC 1110. IF AN ERROR MESSAGE COMES OUT (E.G., "LOAD-ERR TYPE=PRES"), IGNORE THE MESSAGE. YOU MUST WAIT FOR THE RESPONSE FROM THIS REQUEST. THIS SHOULD TAKE FROM 2 TO 7 MINUTES. THE RESPONSE WILL BE ONE OF THE FOLLOWING:

CONNCSPT: TRANSFER GOOD
(THIS RESPONSE WILL BE FOLLOWED BY ONE OR MORE RESPONSES FROM CONNMPEL, INDICATING THE PASSES OF DATA THAT WERE RECEIVED FROM THE UNIVAC 1110.)
CONNCSPT: DATA TRANSFER PROBLEM
CONNCSPT: SIGNON COMPLETED; NO DATA XFERED

2. INSURE THAT ALL USERS ARE LOGGED OFF THE SYSTEM. ON THE CONSOLE, ENTER THE COMMAND:

DISPDV

ALL CRTS SHOULD BE LISTED AS "NOT SIGNED ON". IF ANY CRTS ARE LISTED AS "CURRENTLY IN USE", ENTER THE COMMAND:

REMCRT CRTX:

WHERE "X" IS THE CRT NUMBER, AND WAIT FOR THE RESPONSE.

IF A CRT AT PEG IS SIGNED ON, CALL THAT USER ON GREEN LINE EXTENSION 4567 BEFORE TAKING HIS CRT OFF-LINE. HE MAY REQUIRE THAT RTMS REMAIN OPERATIONAL UNTIL HE COMPLETES HIS JOB. IN THAT CASE, BACKUP WILL HAVE TO

BE POSTPONED.

3. MOUNT A SCRATCH TAPE ON THE DRIVE WITH A WRITE RING. (SCRATCH TAPES ARE ON THE TOP SHELF OF THE RTMS CABINET. DO NOT USE GENP TAPES FOR SCRATCH UNTIL BACKUP IS SUCCESSFULLY COMPLETED!!!!!!)
4. ON THE CONSOLE, ENTER THE COMMAND: -----

BACKUP

THIS COMMAND WILL EXECUTE A RUNSTREAM WHICH WILL REMOVE ALL RTMS PROGRAMS FROM THE SYSTEM, CANCEL ANY OTHER PROGRAMS WHICH MAY BE IN THE SYSTEM AT THE TIME, AND REMOVE THE TASK COMMON AREAS FROM MEMORY. FINALLY, IT WILL LOAD AND START THE BACKUP TASK. THE FOLLOWING RESPONSES SHOULD COME OUT AT THE SYSTEM CONSOLE WHEN THE BACKUP COMMAND IS ENTERED:

```
*** RTMS LOG FILE UPDATED
*SNOC
*16:11:32 CONNOUTP:END OF TASK 255
*16:11:33 C:END OF TASK 255
*16:11:34 .BG:.SPL
*16:11:35 .BG:RUNLOG
*16:11:36 .BG:.BG
*16:11:37 RUNLOG:SNOMSR UNSUCCESSFUL
*16:11:38 .BG:.SPL
*16:11:39 RUNLOG:END OF TASK 242
*16:11:40 .BG:RUNLOG
*16:11:41 .SPL:END OF TASK 255
*16:11:43 .BG:
*16:11:44 .BG:END OF TASK 0
*****ALL TASKS HAVE NOW BEEN CANCELED.
*SNOC
** ALL GLOBAL TASK COMMON SEGMENTS REMOVED
*SNOC
*16:11:49 R:OS/32 BACKUP R01-01
*16:11:50 R:
```

AT THIS POINT, BACKUP SHOULD BE RUNNING NORMALLY. ALL OUTPUT FROM BACKUP (A LIST OF FILES BACKED UP, AS WELL AS ANY DIAGNOSTIC MESSAGES) WILL BE PRINTED ON THE SYSTEM CONSOLE. NOTE THAT THE BACKUP TASK IS LOADED WITH A TASK IDENTIFIER OF "R" (NOT ".BG" AS IN THE PAST). IF YOU NEED TO TASK TO THE JOB FOR ANY REASON, ENTER:

T B

BEFORE ENTERING A CONTINUE OR CANCEL COMMAND.

5. WHEN THE TAPE IS FULL IT WILL REWIND. THE MESSAGES:

R:PLEASE MOUNT TAPE NUMBER 2

B:TASK PAUSED

WILL BE PRINTED ON THE CONSOLE. REMOVE THE FIRST TAPE AND MOUNT THE SECOND TAPE ON THE DRIVE. THEN ENTER:

T B
CO

AFTER THE SECOND TAPE IS COMPLETED, VERIFICATION WILL BEGIN. BACKUP WILL PROMPT FOR THE CORRECT TAPE WITH THE FOLLOWING MESSAGE:

B:OPTION VERIFY
B:PLEASE MOUNT TAPE NUMBER 1
B:TASK PAUSED

MOUNT THE REQUESTED TAPE, THEN CONTINUE THE TASK AS DESCRIBED ABOVE.

6. WHEN THE BACKUP IS COMPLETED THE MESSAGE

B:END OF TASK 0

WILL BE PRINTED ON THE CONSOLE. AT THIS POINT, FOLLOW THE INSTRUCTIONS IN SECTION 3.0, PAGE 3-1 TO RELOAD RTMS.

7. PLACE THE BACKUP TAPES AND THE OUTPUT LISTING FROM THE CONSOLE IN THE PROPER LOCATION IN THE RTMS CABINET. TURN THE POWER SWITCH ON THE TAPE DRIVE OFF.

IF THE BACKUP TASK SHOULD PAUSE BECAUSE OF PARITY ERROR OR SOME OTHER RECOVERABLE ERROR, CORRECT THE ERROR AND ENTER THE FOLLOWING COMMANDS ON THE CONSOLE:

T B
CO

IF THE PROBLEM PERSISTS, CANCEL THE BACKUP TASK BY ENTERING

T B:CA

AND RELOAD RTMS AS DESCRIBED IN SECTION 3.0, PAGE 3-1.

IF THE BACKUP TASK ENCOUNTERS AN UNRECOVERABLE ERROR, SIMPLY CANCEL IT AS DESCRIBED ABOVE (IF IT HAS NOT ALREADY TERMINATED) AND RELOAD RTMS AS DESCRIBED IN SECTION 3.0, PAGE 3-1.

* INSTRUCTIONS FOR RUNNING BACKUP ON THE DEVELOPMENT SYSTEM

1. THE TAPES TO BE USED FOR THE MINI ARE STORED IN THE GRAY

CABINET UNDER GEN1, GEN2, AND GEN3 ON THE SECOND SHELF. THE FIRST SHELF CONTAINS EXTRA TAPES IF NEEDED.

GEN1 WILL BE THE LATEST AND GEN3 WILL BE THE OLDEST. REMOVE GEN3 FROM THE TAPE RACK TO BE USED FOR BACKUP. MOVE GEN2 TAPES TO GEN3 AND GEN1 TO GEN2 PLACE IN RACK. REMOVE OLD LABELS ON TAPES TO BE USED FOR BACKUP. INSERT WRITE RING INTO TAPES BEFORE MOUNTING ON SERVO. MOUNT REEL 1 ON SERVO MARKED MAG1. GET TAPE LABELED 'DEV SYS BACKUP' FROM CABINET AND MOUNT THIS TAPE ON MAG2. AFTER BOTH TAPES HAVE BEEN THREADED, DEPRESS POWER SWITCH AND LOAD SWITCH ON BOTH SERVOS. INSURE THAT THE PRINTER IS ON LINE.

2. TYPE ON THE CONSOLE:
MAG?: — C/R

BACKUP WILL START RUNNING AND WRITING ON REEL 1. AFTER THE PROGRAM HAS COMPLETED WRITING REEL 1, IT WILL REWIND THE TAPE BACK TO LOAD POINT. HIT RESET AND REWIND AND THEN DISMOUNT REEL 1 AND MOUNT REEL 2. ON THE CONSOLE THE PROGRAM WILL BE PAUSED:—

.RG: PLEASE MOUNT TAPE NUMBER 2
.RG: TASK PAUSED

AFTER REEL 2 IS MOUNTED (INSURE WRITE RING IS IN) TYPE ON THE CONSOLE THE FOLLOWING COMMAND:

T .RG C/R
CO C/R

THIS WILL CONTINUE THE PROGRAM. REPEAT THE ABOVE INSTRUCTIONS FOR REEL 3 AND SO ON.

3. AFTER THE BACKUP PROGRAM HAS COPIED OFF ALL OF THE INFORMATION IT WILL DO A VERIFY. THIS MEANS THAT THE DATA ON THE INPUT DEVICE (DISC RACK) AND THE OUTPUT DEVICE (MAG TAPE) IS VERIFIED. IF THE DATA DOES NOT VERIFY, THE NON-VERIFYING RECORDS FROM BOTH FILES ARE OUTPUT TO THE LIST DEVICE (PRINTER) ALONG WITH AN ERROR MESSAGE. SEE PARAGRAPH 2 UNDER ERROR CONDITIONS.

AFTER THE PROGRAM HAS WRITTEN THE LAST TAPE, THE FOLLOWING MESSAGE WILL PRINT OUT ON THE CONSOLE:

.RG: OPTION VERIFY
.RG: PLEASE MOUNT TAPE NUMBER 1
.RG: TASK PAUSED

MOUNT REEL 1 ON MAG1 AND TYPE ON THE CONSOLE:

T .RG C/R
CO C/R

THIS WILL CONTINUE THE PROGRAM. REPEAT THIS PROCEDURE UNTIL THE MESSAGE:

.RG END OF TASK 0

IS WRITTEN TO THE CONSOLE.

4. DISMOUNT TAPES AND STORE IN THE CABINET IN GEN1 SLOT. SAVE THE OUTPUT FROM THE PRINTER AND STORE WITH TAPES.

*****ERROR CONDITIONS*****

IF MAG TAPE DOES NOT HAVE A WRITE RING, INSERT WRITE RING
AND TYPE ON THE CONSOLE:

T .BG C/R

CO C/R

IF A TAPE PARITY ERROR OCCURS (STATUS 82) THE PROGRAM WILL
PAUSE. THIS PROGRAM WILL HAVE TO BE STARTED FROM THE BEGINNING.
ENTER THE FOLLOWING COMMANDS ON THE CONSOLE:

T .36 C/R
CA C/R
MA DISC:,OFF C/R

IF LU 7 (PRINTER) HAS PROBLEMS ENTER THE FOLLOWING ON THE CONSOLE:

CL 007 C/R
AS 007, NULL: C/R
T .36 C/R
CO C/R

IF ANY DISC ERRORS OCCUR, JUST LEAVE THE SYSTEM AS IS UNTIL
SOMEONE FROM APS/RTMS COMES IN ON THE NEXT WORKING DAY. THE
ABOVE ALSO GOES FOR ANY OTHER PROBLEMS THAT ARE NOT EXPLAINED.