Title:

RC36-00832.00

DIGITAL CARTRIDGE RECORDER RELIABILITY OPERATING INSTRUCTION

A/S REGNECENTRALEN

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65 !                                                    RC36-00269 PAGE 01
66
67 TITLE:          DIGITAL CARTRIDGE RELIABILITY PROGRAM
68
69 ABSTRACT:       THIS PROGRAM TESTS DIGITAL CARTRIDGE UNITS BY WRITING
70                 AND CHECK-READING DATA.
71
72
73 SIZE:           9868 BYTES
74
75 DATE:           78.04.11
76
77
78 SPECIAL REQUIREMENTS:
79 (AT COMPILE-TIME)
80
81                 CODEPROCEDURE P0001 (TIME)      RCSL: 43-GL182
82                 CODEPROCEDURE P0023 (DELAY)     RCSL: 43-GL1409
83                 CODEPROCEDURE P0061 (RANDOM)    RCSL: 43-GL2763
84                 CODEPROCEDURE CHANGETABLE       RCSL: 43-GL1519
85
86
87 GENERAL INFORMATION:
88
89                 THIS PROGRAM ACTS IN THE FOLLOWING WAY:
90                 AFTER ALL PARAMETERS HAS BEEN INITIALIZED AND A START
91                 COMMAND HAS BEEN GIVEN THE PROGRAM STARTS WRITTING
92                 AND READING FROM THE CARTRIDGE UNIT (FOR MORE
93                 DETAILED DESCRIPTION SEE SPECIFICATION PAGE 05).
94                 IF STATUS ERRORS OCCURS THEY ARE ACCUMOLATED. IF ERRORS
95                 IN THE DATA OCCURS THEY ARE LOGGED IMMEDIATLY. WHEN THE
96                 PROGRAM HAS BEEN RUNNING FOR  SPECIFIED TIME OR A HARD
97                 ERROR OCCURS, THE PROGRAM IS STOPPED, AND A STATISTIC
98                 IS LOGGED ON THE SELECTED LOG-DEVICE.
99
00
01 DRIVERS FOR THE PROGRAM:
02
03                 INTERPRETER, DRIVER FOR THE SELECTED LOG-DEVICE,
04                 (CONVERSION TABLE IF LOG DEVICE IS PRINTER),
05                 THE PROGRAM TIME AND LATEST VERSION OF CARTRIDGE DRIVER
06                 (FOR UNIT 0 DG000).
07
08 !
09
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0112 RUTINE PARAMETERS:
0113
0114
0115                    UNITNO
0116
0117                            TYPE THE UNIT-NUMBER THAT IS GOING TO BE
0118                            TESTED.
0119
0120                    OUTPUT LOGDEVICE, (TTY), (LPT), (CPT), (SP)
0121
0122                            TYPE THE DEVICE WHERE STATISTICS ARE GOING
0123                            TO BE LOGGED.
0124
0125                            TTY = TELETYPE
0126                            LPT = LINEPRINTER
0127                            CPT = CHARABAND PRINTER
0128                            SP  = SERIAL PRINTER
0129
0130                    TESTPERIOD, (HOURS,MINUTES)
0131
0132                            EFFECTIVE TIME THE TEST SHOULD RUN.
0133
0134                    STOP ON ERROR (YES) OR WAIT UNTIL STATISTIC (NO)
0135
0136                            IF ANSWER = YES THEN TEST WILL STOP ON THE
0137                            FIRST OCCURRED ERROR
0138
0139                            IF ANSWER = NO THEN TEST WILL STOP WHEN RUNTIME
0140                            IS REACHED OR HARD ERROR OCCURS.
0141
0142                    NUMBER OF BLOCKS/FILES (MAX 20)
0143
0144                            TYPE THE NUMBER OF DATA BLOCKS TO BE WRITTEN
0145                            IN EACH FILE.
0146
0147                    BLOCKLENGTH (MAX 2000)
0148
0149                            TYPE THE NUMBER OF CHARACTERS TO BE WRITTEN
0150                            IN EACH DATA BLOCK.
0151
0152                    AUTOMATIC DATAGENERATING (AUTO) OR SPECIAL DATA (SPEC).
0153
0154                            IF ANSWER = AUTO THEN RANDOM AND SKEWPATTERN
0155                            DATA IS AUTOMATICLY GENERATED BY THE PROGRAM.
0156
0157                            IF ANSWER = SPEC THEN DATA IS SELECTED BY
0158                            THE OPERATOR.
0159
0160                    DATA BYTE NN
0161
0162                            ONLY WHEN SPECIAL DATA. GIVE THE DECIMAL
0163                            VALUE (0-225) FOR BYTE NN. IT IS POSSIBLE
0164                            TO SPECIFY MAX 25 BYTES. IF BLOCKLENGTH IS
0165                            SPECIFIED TO 200 BYTES, AND 20 DATA BYTES IS
0166                            SPECIFIED, THEN EACH BLOCK WILL CONTAIN THE
0167                            20 DATA-BYTES 10 TIMES.
0168
0169                    TO SEE THE COMMANDS TYPE HELP ELSE NL
0170
0171                            IF ANSWER = HELP THEN ALL POSSIBLE COMMANDS
0172                            AND THE MEANING OF THEM WILL BE DISPLAYED.
0173 !
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0177 !                                                    RC36-00269 PAGE 03
0178
0179
0180 INPUT MESSAGES:
0181
0182                    START   :       STARTS EXECUTION WRITTING:
0183                                    EXECUTION STARTED HH.MM.SS
0184                                    AFTER LOG DEVICE ERROR START MEANS
0185                                    REAPEAT THE LOG-OUTPUT.
0186
0187                    STOP    :       STOPS EXECUTION WRITTING:
0188                                    EXECUTION STOPPED HH.MM.SS
0189                                    AFTER LOG DEVICE ERROR STOP MEANS
0190                                    SKIP THE LOG-OUTPUT, AND RESTART THE
0191                                    PROGRAM AT INIT-PHASE.
0192
0193                    CONT    :       EXECUTION IS CONTINUED WITHOUT CHANGING
0194                                    STATUS, WRITTING:
0195                                    EXECUTION CONTINUED HH.MM.SS
0196
0197                    INIT    :       DISPLAY RUNTIME PARAMETERS.
0198
0199                    RELEASE:        ONLY WHEN EXECUTION IS STOPPED.
0200                                    FORCES THE PROGRAM IN END JOB AND
0201                                    RELEASES DRIVERS AS IF HOURS.MINUTES
0202                                    HAS GONE.
0203
0204
0205 OUTPUT MESSAGES:
0206
0207                    EXECUTION STARTED HH.MM.SS
0208
0209                            WRITTEN AS ACCEPT OF COMMAND START
0210
0211                    EXECUTION STOPPED HH.MM.SS
0212
0213                            WRITTEN AS ACCEPT OF COMMAND STOP
0214
0215                    EXECUTION CONTINUED HH.MM.SS
0216
0217                            WRITTEN AS ACCEPT OF COMMAND CONT
0218
0219                    LOG DEVICE ERROR NNNNN
0220
0221                            CONSULT THE RC3600 OPERATING GUIDE
0222
0223                    TEST STATISTIC AND ERROR STATISTIC
0224
0225                            USER INFORMATION TO SEE THE RESULT OF
0226                            THE TEST (SEE NEXT PAGE).
0227 !
0228
0229
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0230
0231 !
0232
0233
0234          WHEN AN ERROR OCCURS THE FOLLOWING IS OUTPUT:
0235
0236          UNIT: N   FILE: XXXXX   BLOCK: YYYYY   <STATE>
0237
0238          WHERE N      = UNIT NUMBER
0239                XXXXX = FILE NUMBER IN WHICH THE ERROR OCCURRED.
0240                YYYYY = BLOCK NUMBER IN WHICH THE ERROR OCCURRED.
0241
0242                <STATE> IS ONE OF THE FOLLOWING SEVEN TEXTS
0243
0244                WRITE RANDOM : THE UNIT WAS WRITING RANDOM DATA
0245                               WHEN THE ERROR OCCURRED.
0246                WRITE SKEW   : THE UNIT WAS WRITING SKEW DATA
0247                               WHEN THE ERROR OCCURRED.
0248                WRITE SPECIAL: THE UNIT WAS WRITING OPERATOR-
0249                               SPECIFIED DATA WHEN THE ERROR OCCURRED.
0250                READ RANDOM  : THE UNIT WAS READING AND CHECKING
0251                               RANDOM DATA WHEN THE ERROR OCCURRED.
0252                READ SKEW    : THE UNIT WAS READING AND CHECKING
0253                               SKEW DATA WHEN THE ERROR OCCURRED.
0254                READ SPECIAL : THE UNIT WAS READING AND CHECKING
0255                               OPERATOR-SPECIFIED DATA WHEN THE
0256                               ERROR OCCURRED.
0257                POSITIONING  : THE UNIT WAS POSITIONING TO FILE
0258                               XXXXX BLOCK YYYYY WHEN THE ERROR
0259                               OCCURRED.
0260
0261          DEPENDING ON THE ERROR THE NEXT LINE WILL BE:
0262
0263          PARITY ERROR
0264          POSITION ERROR
0265          EOF STATUS MISSING
0266          LENGTH ERROR    GOOD: XXXXX    BAD: YYYYY
0267          DATA ERROR      GOOD: 8'NNN    BAD: 8'MMM    CHARACTERNO: VVVVV
0268
0269          PARITY AND POSITION ERROR NEED NO EXPLANATION.
0270
0271          EOF STATUS MISSING  MEANS THAT FILE XXXXX BLOCK YYYYY SHOULD
0272                              HAVE BEEN A TAPE-MARK, BUT WHEN IT WAS
0273                              READ NO EOF-STATUS WAS RETURNERED.
0274                              NOTE: AFTER THIS THE RELIABILITY WILL REWIND
0275                                    THE TAPE AND START AT FILE 1 BLOCK 1.
0276
0277          LENGTH ERROR        MEANS THAT THE BLOCKSIZE WHEN READING IS
0278                              NOT EQUAL TO THE EXPECTED ONE.
0279                              XXXXX = CORRECT BLOCKSIZE, YYYYY = READ
0280                              BLOCKSIZE.
0281
0282          DATA ERROR          MEANS THAT THE READING AND CHECKING DATA,
0283                              FILE XXXXX BLOCK YYYYY BYTE VVVVV DOES
0284                              NOT CORRESPOND TO WHAT IT SHOULD BE
0285                              WRITTEN IN IT. NNN IS THE CORRECT VALUE
0286                              IN OCTAL, AND MMM IS THE READ VALUE IN OCTAL.
0287                              IF 3 DATA ERRORS HAVE OCCURRED IN 1 BLOCK,
0288                              IT IS REGARDED AS A BAD BLOCK, AND THE
0289                              REST OF IT IS NOT CHECKED.
0290 !
0291
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)292
)293 !
)294
)295 TEST STATISTIC AND ERROR STATISTIC:
)296
)297                    THE TEST STATISTIC AND ERROR STATISTIC IS LOGGED
)298                    ON THE SELECTED LOG-DEVICE WHEN THE TEST HAS BEEN
)299                    RUNNING FOR THE SPECIFIED TIME OR WHEN THE COMMAND
)300                    STOP IS GIVEN.
)301
)302                    THE TEST STATISTIC SHOWS THE TIME FOR START, STOP
)303                    AND THE EFFECTIVE RUN-TIME. FURTHERMORE IT SHOWS
)304                    THE UNIT-NUMBER, HOW MANY FILES THAT HAS BEEN WRITTEN
)305                    AND READ AND HOW MANY ERRORS THAT HAVE OCCURRED.
)306
)307
)308                    THE ERROR STATISTIC SHOWS THE STATUS-ERRORS THAT
)309                    HAVE OCCURRED.
)310
)311                    ERROR NN: NNNNN          EXPLANATION.
)312                    NN IS THE ERRORNUMBER
)313                    NNNNN IS THE NUMBER OF TIMES THE ERROR OCCURRED.
)314                    EXPLANATION IS AN EXPLANATION OF THE STATUS-ERROR.
)315
)316 !
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SPECIFICATION:

                    IN THE FOLLOWING

                    X = RUNTIME PARAMETER BLOCKS/FILE.
                    L = RUNTIME PARAMETER BLOCKSIZE.

                    THE FUNCTION OF THE CARTRIDGE UNIT RELIABILITY IS:

                    1. POSITION TO FILE 1 BLOCK 1.

                    2. IF SPECIAL DATA IS SELECTED THEN GOTO 10.

                    3. WRITE A FILE OF X BLOCKS OF THE LENGTH L
                       WITH RANDOM DATA.

                    4. WRITE A FILE OF X BLOCKS OF THE LENGTH 162
                       WITH SKEW-PATTERN DATA:
                       8'200 - 8'200 - 8'200 - 8'100
                       8'200 - 8'040 - 8'200 - 8'020
                       8'200 - 8'010 - 8'200 - 8'004
                       8'200 - 8'002 - 8'200 - 8'001
                       8'200 - 8'000 - 8'100 - 8'200
                       8'100 - 8'100 - 8'100 - 8'040
                       ETC.

                    5. EACH 5. TIME POSITION TO FILE 1 BLOCK 1 (REWIND)
                       ELSE POSITION LAST RANDOM FILE BLOCK X (BACKSPACE FILE).

                    6. POSITION TO LAST RANDOM FILE BLOCK 1
                       (EACH 5. TIME WILL IT BE FORWARD POSITIONING
                        ELSE WILL IT BACKSPACE BLOCK).

                    7. READ AND CHECK X+1 BLOCKS FROM RANDOM
                       FILE (THE LAST BLOCK SHOULD GIVE EOF-STATUS).

                    8. READ AND CHECK X+1 BLOCKS FROM SKEW-DATA FILE
                       (THE LAST BLOCK SHOULD GIVE EOF-STATUS).

                    9. IF EOT IS REACHED THEN GOTO 1.
                       ELSE GOTO 2.

                   10. WRITE A FILE OF X BLOCKS OF THE LENGTH L
                       WITH THE SPECIFIED DATA.

                   11. READ AND CHECK X+1 BLOCKS FROM THE FILE
                       WITH THE SPECIFIED DATA (THE LAST BLOCK
                       SHOULD GIVE EOF-STATUS).

                   12. GOTO 9.

                    THIS WILL CONTINUE UNTIL IT HAS RUN HOURS.MINUTES
                    UNLESS IT IS INTERUPTED BY OPERATOR OR HARD ERROR.


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