

LABEL 000000000PRINTER0017509900 EX OBJECT/READ;FILE SOURCEFILE=SYMBOL/ROTO;END+000000

OBJECT /READ

SYMBOL/ROTO

Data Documents/Inc.

\$ RESET SINGLE

ROTO/ROOTER
02/07/74

00000010
00000100
00000110
00000120
00000121
00000122
00000123
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00000126
00000127
00000128

COMMENT: * TITLE: B5500/B5700 MARK XV.1 SYSTEM RELEASE *
* FILE ID: SYMBOL/ROTO TAPE ID: SYMBOL2/FILE000 *
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COMMENT

THIS PROGRAM CLEANS OUT THE SEPTIC TANKS CREATED BY THE SEPTICTANK
OPTION IN THE MCP-S. THE SEPTIC TANK IS WRITTEN IN 60 WORD BLOCKS,
WITH EACH BLOCK CONTAINING A VARIABLE NUMBER OF ENTRIES WHICH ARE
FROM 2 TO 16 WORDS IN LENGTH. SINCE ENTRIES DO NOT CROSS BLOCKS,
THE END OF VALID INFORMATION IN A BLOCK IS MARKED BY AN ENTRY WITH
A BLANK IN THE FIRST CHARACTER POSITION. THE FORMAT OF AN ENTRY IS:

WORD 1 3:6 = ENTRY TYPE:

- 0 = PASSIVE INTERROGATE,
- 1 = ACTIVE INTERROGATE,
- 2 = WRITE,
- 3 = READ,
- 4 = INTERRUPT.

9:9 = I/O BUFF.

21:12 = ERROR BITS FROM RESULT DESCRIPTOR.

33:15 = NUMBER OF WORDS OF TEXT IN THIS ENTRY.

WORD 2 12:6 = LINE STATUS (TSSMCP ONLY).

18:30 = TIME OF ENTRY IN 60"THS OF A SECOND.

WORDS 3-N = TEXT, AS INDICATED IN THE 33:15 FIELD OF WORD 1.

THE LAST ENTRY IN THE FILE HAS ZERO IN THE 3:15 FIELD OF WORD 1.
THE FIRST WORD IN THE FILE IS USED TO INDICATE THE TYPE OF FILE,
AS FOLLOWS:

- 0 MCP FILE WHICH HAS NOT WRAPPED AROUND.
- 1 TSSMCP " " " " " "
- 2 MCP FILE WHICH HAS WRAPPED AROUND.
- 3 TSSMCP " " " " " "

TO USE THE PROGRAM, SIMPLY EXECUTE IT USING A COMMON VALUE EQUAL TO
THAT OF THE CREATION TIME OF THE SEPTIC FILE TO BE ANALYZED, I.E.
EQUAL TO THE 4 DIGIT SECOND NAME OF THE FILE. FOR EXAMPLE, IF THE
FILE IS SEPTIC/1234, A COMMON VALUE OF 1234 SHOULD BE USED. ALTER-
NATIVELY, THE PROGRAM MAY BE RUN WITHOUT SETTING COMMON. IN THAT
CASE, IT WILL ASK AT THE SPD FOR THE NAME OF THE SEPTIC FILE AND
FOR THE TIME AT WHICH ANALYSIS IS TO BEGIN. EITHER OR BOTH OF THEM
MAY BE SPECIFIED.

THE MEMORY DUMP ANALYZERS HAVE BEEN MODIFIED TO PRINT THE CORE
PORTION OF THE ARRAY (CALLED THE "ARGH" ARRAY) WHICH CONTAINS THE
TRACKING INFORMATION BEFORE IT IS WRITTEN INTO THE SEPTIC TANK.

*****;01041000
BEGIN
REAL I; % FILE NUMBER IS PUT IN I VIA COMMON.
REAL B,TYPE,STARTIME;
BOOLEAN TSSMCP,WRAPAROUND;
ARRAY INTSP(0:59),LINE(0:14),NAM(0:4),CC(0:3),LSTAT(0:64);

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01030000
01031000
01032000
01033000
01034000
01035000
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01038000
01039000
01040000
01041000
01042000
10000000
11000000
11001000
11500000
12000000

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LABEL WRAP,READNEXT,LOOP,DATAEND,EOF,EOJ;          13000000
FILE SEPTIC DISK SERIAL "SEPTIC" "TANK" (2,60,MYUSE=INPUT); 14000000
FILE P 18(2,15); 14001000
1 FORMAT TANKEND(/,"*** END OF TANK"); 14500000
2 DEFINE BUMPI = (I:=I+1)#, 15000000
3   TMCP = REAL(TSSMCP)#, 15000500
4   DCMCP = (NOT TSSMCP)#; 15001000
5 DEFINE FILLSTAT = 15900000
6   FILL LSTAT[*] WITH % LINE STATUSES FOR TIMESHARING. 15901000
7   "WRITING ","" ", 15902000
8   "POLLING ","" ", 15903000
9   "SELECTIN","G" ", 15904000
10  "ACKING ","" ", 15905000
11  "NAKING ","" ", 15906000
12  "ACKING-E","NG" ", 15907000
13  "NAKING-E","NG" ", 15908000
14  "WRITE-RE","ADY-BUSY", 15909000
15  "IDLE ","" ", 15910000
16  "IDLE-POL","LING" ", 15911000
17  "WAITING ","" ", 15912000
18  "WAITING-","ENQ" ", 15913000
19  0, 0, 15914000
20  0, 0, 15915000
21  0, 0, 15916000
22  0, 0, 15917000
23  "NORMAL ","" ", 15918000
24  "FIRST-TI","ME" ", 15919000
25  "SELECT-A","NSWER" ", 15920000
26  "ENQ-READ","" ", 15921000
27  "BRUKEN ","" ", 15922000
28  "POLL-TIM","E-OUT" ", 15923000
29  "TIMED-OU","T" ", 15924000
30  "EOT-READ","" ", 15925000
31  "READ-REA","DY-ABN" ", 15926000
32  "MESSAGE-","ANSWER" ", 15927000
33  0, 0, 15928000
34  0, 0, 15929000
35  0, 0, 15930000
36  0, 0, 15931000
37  0, 0, 15932000
38  "DISCONN","CT" ", 15933000
39  "INVALID ","TU/BUFF" "#; 15934000
40 % 20000000
41 PROCEDURE TIM(A,CC); VALUE A; REAL A; ARRAY CC(0); 20001000
42 BEGIN INTEGER I,J; 20002000
43 % 21000000
44 STREAM PROCEDURE FF(A,B); 21001000
45 BEGIN SI:=A; DI:=B; DI:=DI+3; 21002000
46 4(DS:=2 DEC; DS:=LIT";"); 21003000
47 DI:=DI-1; DS:=LIT" "; 21004000
48 END FF; 21005000
49 % 29000000
50 A:=A,[18:30]; 29001000
51 FOR I:=3 STEP -1 UNTIL 0 DO 29002000
52 BEGIN CC[I]:=J:= A MOD 60; 29003000
53 A:=A DIV 60; 29004000
54 END; 29005000
55 FF(CC,LINE(8)); 29006000
56 END TIM; 29007000
57 % 30000000

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```
PROCEDURE INITIALIZE;  
BEGIN  
%
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30001000  
30002000  
31000000
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1 PROCEDURE GETINFO;  
2 BEGIN ARRAY A(0:9);  
3 FILE SPO 11(1,10);  
4 FORMAT F1("ENTER FILE NAME"),  
5 F2("ENTER START TIME");
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31001000  
31002000  
31003000  
31004000  
31005000
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6 %  
7 STREAM PROCEDURE GETNAM(A,B);  
8 BEGIN LABEL L;  
9 LOCAL X;
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31100000  
31101000  
31102000  
31103000
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10 SI:=A;  
11 2(  
12 L: IF SC=" " THEN BEGIN SI:=SI+1; GO TO L END;  
13 IF SC="+" THEN JUMP OUT;  
14 DI:=LOC X; DS:=8 LIT"0 "; DI:=DI-7;  
15 7(IF SQ=ALPHA THEN DS:=CHR ELSE JUMP OUT);  
16 DI:=B; A:=SI; SI:=LOC X; DS:=WDS;  
17 B:=DI; SI:=A;  
18 IF SC=ALPHA THEN ELSE  
19 IF SC="+" THEN JUMP OUT ELSE SI:=SI+1;
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31104000  
31105000  
31106000  
31107000  
31108000  
31109000  
31110000  
31111000  
31112000  
31113000
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20 );  
21 END;
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31114000  
31115000
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22 %  
23 STREAM PROCEDURE GETIME(A,B);  
24 BEGIN LABEL L1,L2;
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31200000  
31201000  
31202000
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25 SI:=A; DI:=B;  
26 4(  
27 L1: IF SC=" " THEN BEGIN SI:=SI+1; GO TO L1 END;  
28 IF SC="!" THEN BEGIN SI:=SI+1; GO TO L1 END;  
29 IF SC LSS "0" THEN JUMP OUT;  
30 IF SC GTR "9" THEN JUMP OUT;  
31 SI:=SI+1;  
32 IF SC LSS "0" THEN GO TO L2;  
33 IF SC LEQ "9" THEN  
34 BEGIN SI:=SI-1; DS:=2 OCT END ELSE  
35 L2: BEGIN SI:=SI-1; DS:=OCT END;
```

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31203000  
31204000  
31205000  
31206000  
31207000  
31208000  
31209000  
31210000  
31211000  
31212000  
31213000  
31214000
```

```
36 );  
37 END;  
38 %  
39 % GET LABEL EQUATION FOR SEPTIC  
40 %
```

```
31215000  
31900000  
31901000
```

```
41 WRITE(SPO,F1);  
42 READ(SPO,10,A[*]);  
43 CC[0]:=CC[1]:=-1;  
44 GETNAM(A,CC);  
45 IF CC[0]#-1 THEN  
46 IF CC[1]=-1 THEN SEPTIC.FID:=CC[0] ELSE  
47 BEGIN SEPTIC.MFID:=CC[0];  
48 SEPTIC.FID:=CC[1];
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31902000  
31903000  
31904000  
31905000  
31906000  
31907000  
31908000  
31909000  
31910000
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49 END;  
50 %  
51 % GET STARTING TIME.  
52 %
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31911000  
31912000  
31913000
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53 WRITE(SPO,F2);  
54 READ(SPO,10,A[*]);  
55 CC[0]:=CC[1]:=CC[2]:=CC[3]:=0;  
56 GETIME(A,CC);  
57 STARTIME:=CC[3]+60*(CC[2]+60*(CC[1]+60*CC[0]));
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31914000  
31915000  
31916000  
31917000  
31918000  
31919000
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END GETTING FILE AND START TIME WHEN NOT GIVEN THRU COMMON; 31920000
%
REAL STREAM PROCEDURE FR(A); 32000000
BEGIN SI:=A; DI:=LOC FR; 32001000
      DS:=LIT"0"; DS:=4 DEC; DS:=3 LIT" "; 32002000
END; 32003000
%
STREAM PROCEDURE INIT(A); 32004000
BEGIN DI:=A; DS:=40 LIT 33000000
      "PASS INTACT, INTWRITE READ INTERUPT"; 33001000
END INIT; 33002000
%
REAL X; 33003000
FORMAT HDR(X20,"SEPTIC TANK ANALYSIS OF ",A1,A6,"/",A1,A6// 34000000
      X20,A6,"DAY, ",A2,"/",A2,"/",A2,X6,I2,":",I2,":",I2, 34001000
      //X23,"SEPTIC FILE CREATED ON ",A6,"."), 34100000
      RAPT(X26,"WRAPAROUND HAS OCCURRED."), 34102000
      HDR2(//X10,"ABN = D25 (ABNORMAL)",X15, 34110000
      "WR = D21 (WRITE READY)",/ 34120000
      X10,"RR = D24 (READ READY)",X13,"BSY = D20 (BUSY)", 34121000
      /X10,"BFL = D23 (BUFFER FINAL LOCATION)",X2, 34122000
      "NTR = D18 (UCTU NOT READY)", 34123000
      /X10,"IDL = D25-D16 = 0 (IDLE)",//X10, 34124000
      "NOTE: BSY AND NIR = ADAPTER/DITU NOT READY"//); 34125000
%
INIT(NAM); 34126000
IF I LEQ 0 THEN GETINFO ELSE SEPTIC.FID:=FR(I); 39000000
READ(SEPTIC,60,INTSP[*]); 39001000
IF TSSMCP:=BOOLEAN(INTSP[0]) THEN FILLSTAT; 39002000
TIM(TIME(1),CC); 39003000
WRITE(P,HDR,(X:=SEPTIC.MFID).[6:6],X,(X:=SEPTIC.FID).[6:6],X, 39004000
      TIME(6),(X:=TIME(5)).[12:12],X.[24:12],X.[36:12], 39005000
      CC[0],CC[1],CC[2],IF TSSMCP THEN "TSSMCP" ELSE "DCMCP"); 39006000
IF WRAPAROUND:=BOOLEAN(INTSP[0].[46:1]) THEN WRITE(P,RAPT); 39007000
WRITE(P,HDR2); 39008000
END OF INTIALIZATION PROCEDURES; 39009000
%
PROCEDURE MMM(B); VALUE B; REAL B; 40000000
BEGIN REAL C,X; 40001000
%
STREAM PROCEDURE MOVE(A,B); 40002000
BEGIN SI:=A; DI:=B; 41000000
      B(IF TOGGLE THEN DS:=LIT" " ELSE 41001000
      IF SC="+" THEN DS:=CHR ELSE DS:=CHR); 41002000
END MOVE; 41003000
%
DO 41004000
BEGIN X:=MIN(B,14); 41005000
      FOR C:=0 STEP 1 UNTIL X-1 DO MOVE(INTSP[BUMPI],LINE[C]); 49000000
      WRITE(P,X,LINE[+]); 49001000
END UNTIL (B:=B-14) LEQ 0; 49002000
END MMM; 49003000
%
STREAM PROCEDURE FLL(A,B,C,D,E,F,G,H); VALUE B,C,D,E,F,G; 49004000
BEGIN LABEL UP1,UP2,EXIT; 49005000
      DI:=H; 15(DS:=8LIT" "); DI:=H; SI:=A; 50000000
      DS:=WDS; CI:=CI+F; GO TO EXIT; 50001000
      SI:=LOC B; DI:=DI+1; 50002000
      2(DS:=2DEC; A:=DI;DI:=DI-2;DS:=FILL;DI:=A;DS:=LIT"/"); 50003000
      DI:=DI-1; DS:=4LIT" "; 50004000

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SI:=SI+6; SKIP 2 SB; 50008000
IF SB THEN DS:=LIT"1" ELSE DS:=LIT"0"; SKIP SB; 50009000
3(DS:=3 RESET; 3(IF SB THEN DS:=SET ELSE DS:=RESET; SKIP SB)); 50010000
SI:=SI+7; DI:=DI+3; CI:=CI+G; GO TO UP1; 50011000
IF SC="1" THEN DS:=3LIT"IDL" ELSE 50012000
UP1: DI:=DI+3; 50013000
DI:=DI+3; SI:=SI-9; SKIP 2 SB; 50014000
IF SB THEN DS:=3LIT"ABN" ELSE DI:=DI+3; SKIP SB; %D25 50015000
DI:=DI+3; CI:=CI+G; GO TO UP2; 50016000
IF SB THEN DS:=3 LIT"RR " ELSE %D24 50017000
UP2: DI:=DI+3; 50018000
SKIP SB; DI:=DI+3; 50019000
IF SB THEN DS:=3LIT"BFL" ELSE DI:=DI+3; SKIP SB; %D23 50020000
DI:=DI+3; 50021000
SKIP SB; %IGNORE D22 50022000
IF SB THEN DS:=3LIT"WR " ELSE DI:=DI+3; SKIP SB; %D21 50023000
DI:=DI+3; 50024000
IF SB THEN DS:=3LIT"BSY" ELSE DI:=DI+3; SKIP SB; %D20 50025000
DI:=DI+3; 50026000
SKIP SB; %IGNORE D19 50027000
IF SB THEN DS:=3LIT"NTR" ELSE DI:=DI+3; %D18 50028000
EXIT: 50029000
END FLL; 50030000
% 60000000
STREAM PROCEDURE STAT(LINESTAT,LINE); 60001000
BEGIN SI:=LINESTAT; DI:=LINE; 60002000
DI:=DI+2; DS:=16 CHR; 60003000
END STICKING STATUS INTO OUTPUT FOR TSS; 60004000
% 70000000
BOOLEAN STREAM PROCEDURE ENDOFBLOCK(A); 70001000
BEGIN SI:=A; IF SC="" THEN TALLY:=1; 70002000
ENDOFBLOCK:=TALLY; 70003000
END ENDOFBLOCK; 70004000
% 80000000
PROCEDURE STATION(STA); VALUE STA; REAL STA; 80001000
BEGIN 80002000
% 81000000
STREAM PROCEDURE PUTSTA(STA,LINE); VALUE STA; 81001000
BEGIN SI:=LOC STA; DI:=LINE; 81002000
2(8(DS:=3 RESET; 81003000
3(IF SB THEN DS:=SET ELSE DS:=RESET; SKIP SB)); 81004000
DS:=LIT" "); 81005000
END; 81006000
% 82000000
IF STA<0 AND TYPE#4 THEN PUTSTA(STA,LINE[10]); 82001000
END OF STICKING STATION TABLE INTO OUTPUT FOR MCP; 82002000
% 90000000
%***** END OF DECLARATIONS ***** 90001000
% 90002000
INITIALIZE; 91000000
IF WRAPAROUND THEN 91001000
IF INTSP[2],[18:30] LSS STARTIME THEN WRAPAROUND:=FALSE ELSE 91002000
BEGIN DB READ(SEPTIC,60,INTSP[+])[WRAP] UNTIL INTSP[0],[3:15]=0; 91003000
GO TO READNEXT; 91004000
END; 91005000
I:=1; 91006000
GO TO LOOP; 91007000
WRAP: 91008000
REWIND(SEPTIC); 91009000
WRAPAROUND:=FALSE; 91010000

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I:=1;
IF FALSE THEN
READNEXT;
I:=0;
READ(SEPTIC,60,INTSP[*])(EOF);
LOOP:
      IF (B:= %%
      INTSP[I]).[3:15]=0 THEN
      GO TO DATAEND;
      IF INTSP[I+1].[18:30] < STARTIME
      THEN I:=INTSP[I].[33:15]+I+2-TMCP ELSE
      BEGIN %%%%%%%%%%%
      FLL(NAM[TYPE:=B.[3:6]],B.[9:4],B.[14:4]
      ,B.[21:12],B.[24:9]=0,TYPE#4,TYPE LEG 1,%
      LINE); %%%%%%%%%%%
      TIM(INTSP[BUMPI].[18:30],CC); %%%%%%%%%%%
      IF DCMCP THEN STATION(INTSP[BUMPI]) ELSE %%
      IF TYPE#4 THEN %%%%%%%%%%%
      STAT(LSTAT[2*INTSP[I],[12:6]],LINE[10]); %%
      WRITE(P,15,LINE[*]); %%%%%%%%%%%
      IF (B:=B.[33:15]) # 0 THEN MMM(B); %%%
      WRITE(P); %%%%%%%%%%%
      END; %%%%%%%%%%%
      IF I=59 THEN GO TO READNEXT ELSE %%%
      IF ENDFLOCK(INTSP[BUMPI]) THEN
      GO TO READNEXT ELSE %%
      GO TO LOOP
      ;
DATAEND:
READ(SEPTIC,60,INTSP[*])(EOF);
GO TO EOJ;
EOF:
IF WRAPAROUND THEN GO TO WRAP;
EOJ:
WRITE(P,TANKEND);
END. END.
END;END. LAST CARD ON OCRDING TAPE

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91012000
91013000
91014000
91015000
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Data Documents/Inc.

LABEL 0000000COPRINTER00175099CC EX OBJECT/READ;FILE SOURCEFILE=SYMBOL/ROTU;END+000000

OBJECT /READ

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LABEL 00000000PRINTER00175099CC EX OBJECT/READ;FILE SOURCEFILE=PATCH/ROTU;END*

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Data Documents/Inc.

\$# PATCH NUMBER 101 FOR ROTO CONTAINS 011 CARDS.
REAL INT,PASINT,ACTINT;

BEGIN SI:=A; DI:=B; DI:=DI+ 10;
STREAM PROCEDURE FLL(A,B,C,D,E,F,G,J,H); VALUE B,C,D,E,F,G,J;
DI:=DI+3;
SI:= LOC J; DS:=3 LIT "CH "; DS:=1 DEC;
B.[19:3],LINE);
ACTINT:=ACTINT+ REAL(TYPE=1);
PASINT:=PASINT+REAL(TYPE=0);
INT:=INT+REAL(TYPE=4);
WRITE(P,<"INTERRUPTS = ",I4,/,,"ACTIVE INT = ",I4,/,
"PASSIVE INT = ",I4>,INT,ACTINT,PASINT);

11000100
21002000
50001000
50028050
50028100
92008000
92008100
92008110
92008120
93002500
93002600

\$: BY RC
\$: 6/15/74
\$: TR

THIS PATCH LISTS THE I/O CHANNELS USED.

!x514003 #NO MESSAGES TODAY

Data Documents/Inc.

LABEL 00000000PRINTER00175099CC EX OBJECT/READ;FILE SOURCEFILE=PATCH/ROTU;END←

OBJECT /READ

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