alpha micro SOFTWARE NOTES

V 4.5a (2)

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INTRODUCTION

This is the Alpha Micro Software Notes, a publication designed to give technical software information to our OEM/dealer network. Please address all inquiries or suggestions concerning this newsletter to:

Editor, Alpha Micro Software Notes
Advanced Products Development Group
P.O. Box 18347
Irvine, CA 92713

SOFTWARE CHANGE NOTICES

This month, we have one patch for each of the following programs of AMOS Version 4.5A:

    RUN.PRG
    RUNSML.PRG
    COMPIL.PRG
    420DVR.DVR
    SYSTEM.MON

RUN.PRG

This patch solves the following problems in RUN.PRG:

1. RUN did not find .RUN modules loaded into user memory.

2. The maximum record number was limited to 65535 minus the filebase; now it is 4 billion (plus 32 bits).

3. Input of numeric variables would not work correctly if the number started with 9.

4. Improperly nested FOR-NEXT loops would sometimes cause spurious "Return without GOSUB" errors.

```
.SET OCTAL (RET)
.DIR/H RUN.PRG (RET)
RUN   PRG 24          505-507-347-402          DSK0:[1,4]
.DDT RUN.PRG (RET)
PROGRAM BASE IS xxxxxx
PROGRAM SIZE IS 27014

    612/   TST  344              TST  344(R0) (RET)
   5472/   SUB  @SP,R0           JMP  27014 (RET)
  14336/   SBC  R1               SBC  R2 (RET)
  26110/   BNE  26120            BNE  26140 (RET)
  26116/   BR   26076            SUBI 11,R1 ↓
  26120/   CALL 26356            BEQ  26112 ↓
```

```
26122/    SVCB 32              SUB #27,R1 ↓
26126/    LCC 0                BEQ 26122 ↓
26130/    BLO 26144            4133 ↓
26132/    CMPB R1,#71          BEQ 26140 ↓
26134/    LCC 11               CALL PC,26356 (RET)
27014/                         SUB @SP,R0 ↓
27016/                         BEQ 27024 ↓
27020/                         SUB R0,R2 ↓
27022/                         MBBU R1,R2 ↓
27024/                         JMP 5500 (RET)
^C
.DIR MEM:/H (RET)
RUN PRG 11800      045-726-467-671              MEM:
.SAVE RUN.PRG (RET)
ERASE RUN.PRG, SAVE RUN.PRG
.
```

RUNSML.PRG

This patch remedies the same problems that were present in RUN.PRG (see last
patch).

```
.SET OCTAL (RET)
.DIR/H RUNSML.PRG (RET)
RUN PRG 21       252-372-151-426        DSK0:[1,4]
.DDT RUNSML.PRG (RET)
PROGRAM BASE IS xxxxxx
PROGRAM SIZE IS 24136

   612/    TST 344              TST 344(R0) (RET)
  5472/    SUB @SP,R0           JMP 24136 (RET)
 14336/    SBC R1               SBC R2 (RET)
 23232/    BNE 23242            BNE 23262 (RET)
 23240/    BR  23220            SUBI 11,R1 ↓
 23242/    CALL 23500           BEQ 23234 ↓
 23244/    SVCB 32              SUB #27,R1 ↓
 23250/    LCC 0                BEQ 23234 ↓
 23252/    BLO 23266            4133 ↓
 23254/    CMPB R1,#71          BEQ 23262 ↓
 23256/    LCC 11               CALL PC,23500 (RET)
 24136/                         SUB @SP,R0 ↓
 24140/                         BEQ 24146 ↓
 24142/                         SUB R0,R2 ↓
 24144/                         MBBU R1,R2 ↓
 24146/                         JMP 5500 (RET)
^C
.DIR MEM:/H (RET)
RUNSML PRG 10346      012-264-450-135         MEM:
.SAVE RUNSML.PRG (RET)
ERASE RUNSML.PRG, SAVE RUNSML.PRG
.
```

COMPIL.PRG

Previously, errors within your main program may not have been reported
correctly. If any block of code that you called with ++INCLUDE contained an
error (unresolved GOTO or GOSUB), COMPIL did not report the number of the
line that caused the error, but instead reported a random program line.
Further, COMPIL did not indicate that the error occurred within a block
referenced by ++INCLUDE.

This patch changes COMPIL so that errors within the main program are
reported correctly, and, if an error occurs within code that is called by
++INCLUDE, the ++INCLUDE line is reported. To find the line that caused the
error, you may need to COMPIL separately the block called by ++INCLUDE.

```
.SET OCTAL [RET]
.DIR/H COMPIL.PRG [RET]
COMPIL PRG 22          643-445-221-520           DSK0:[1,4]
.DDT COMPIL.PRG [RET]
PROGRAM BASE IS xxxxxx
PROGRAM SIZE IS 25054

 3502/   INC 466(R0)            JMP 25054 [RET]
 3742/   CLR 1330(R0)           INC 466(R0) [RET]
25054/                          TST 1332(R0) ↓
25060/                          BNE 25066 ↓
25062/                          INC 466(R0) ↓
25066/                          JMP 3506 [RET]
^C
.DIR MEM:/H [RET]
COMPIL PRG    10810     147-740-356-150          MEM:
.SAVE COMPIL.PRG [RET]
ERASE COMPIL.PRG, SAVE COMPIL.PRG

.
```

420DVR.DVR

This patch is provided to correct a possible problem with alternate track
handling on Winchester drives. At AMOS command level, enter the following:

       DIR/H 420DVR.DVR [RET]

If the hash total is not 452-215-154-106, you should implement this patch.
The question marks (????) in the patch on the next page mean that it doesn't
matter what characters occupy those spaces.

```
.SET OCTAL (RET)
.LOG 1,6 (RET)
.DIR/H 420DVR.DVR (RET)
420DVR DVR 2   037-714-621-527   DSK0:[1,6]
                     or
              630-714-621-527
.DDT 420DVR.DVR (RET)
PROGRAM BASE IS xxxxxx
PROGRAM SIZE IS 12xx
754/     CMP R3,R0        CALL PC,1220 (RET)
1220/    ???? AND #7777,R3 ↓
1224/    ???? CMP R3,R0 ↓
1226/    ???? BHI 1232 ↓
1230/    ???? RTN PC ↓
1232/    TST @(SP)+ ↓
1234/    BR 734 (RET)
^C
.DIR/H MEM:420DVR.DVR (RET)
420DVR DVR  670  452-215-154-106      MEM:
.SAVE 420DVR.DVR (RET)
ERASE 420DVR.DVR, SAVE 420DVR.DVR
.
```

After making this patch, copy the new 420DVR.DVR to PLD.DVR. Then do the following at AMOS command level:

1. Enter LOG 1,4 (RET).

2. Enter MONGEN (RET).

3. When MONGEN asks for the monitor name, enter SYSTEM (RET).

4. When MONGEN asks for the driver name, enter PLD (RET).

5. When MONGEN asks for the new monitor name, enter SYSTEM (RET).

6. Enter SAVE SYSTEM.MON (RET) .

After you reboot the system with the new monitor, it is ready to use. If you have any questions about these procedures, please contact the System Support Group at (714) 957-0392.

SYSTEM.MON--Monitor Version Number Update

Once you've entered the other patches in this issue, enter the following one to change the monitor version number from 4.5a(1) to 4.5a(2). This patch assumes you have brought your monitor up to version 4.5a(1) by entering the patches included in the September issue of Software Notes. To find out your current monitor version number, use the SYSTAT or SYSTEM command. This patch does not affect the operation of the monitor; it just gives you a quick way to see if all patches have been implemented.

```
.SET OCTAL (RET)
.LOG SYS: (RET)
Logged into SYS:
.DDT SYSTEM.MON (RET)

PROGRAM BASE IS xxxxxx
PROGRAM SIZE IS xxxxxx
14/      AND R4,a-(RO)              31050 (RET)
^C
.SAVE SYSTEM.MON (RET)
ERASE SYSTEM.MON, SAVE SYSTEM.MON
.DEL SYSTEM.MON (RET)
SYSTEM.MON          .
.
```

After entering the patch to SYSTEM.MON, you can verify its effect by rebooting the system and using the SYSTEM or the SYSTAT command; either will display the new monitor version. For example, if you reboot and issue the SYSTEM command, you see:

```
.SYSTEM
The following programs are allocated in system memory:
        STD     DVR
        AMS     DVR
Total resident monitor size is 15466 bytes
Monitor version is 4.5a(2)
```