A/UX 1.0: f77 Compiler Problems and Solution

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Article Change History

08/31/92 - REVIEWED

TOPIC -----

I am having problems with the f77 compiler for A/UX. Here are some significant faults:

```
C
C new program:
C
    INTEGER*2 I2
    INTEGER*4 I4

    I2=2
    I4=4
    I2=I4
C this line ends in >>>> Termination code 139
    I2=I4-2
C this line ends in >>>> "", line 7: compiler error: can't deal with op NAM

    STOP
    END
C
C new program:
C
    SUBROUTINE test(NAME,NAMLEN)
    INTEGER*2 NAME(1),NAMLEN,
&             I00000

    DATA I00000 /0/
C this line ends in >>>> Assembler: test.f
C                   >>>> AppleLine 9       : invalid instruction name
C                   >>>> AppleLine 9       : syntax error
C                   >>>> Compiler error in file test.o: assembler error
    NAMLEN=10
    RETURN
```

```
    END
```

Due to program volume constraints, there is no practical way to change INTEGER*2 to INTEGER*4 as one of the verified f77 problems. Would you recommend a version of this compiler for A/UX? What about the Greenhills Optimizing Fortran compiler or any other known compiler?

DISCUSSION ----------

We have verified the problem with the above f77 code. It is an A/UX f77 problem; it compiled OK using Greenhills Optimizing Fortran compiler (gf77) under A/UX.

The "Termination code 139" and the subsequent error message have to do with the use of the result INTEGER*2 variable being assigned by the INTEGER*4 variable; the conversion between the "int" (4-byte long integer) and the "short" (2-byte long integer) doesn't seem to work.

The "Assembler: ..." and the subsequent error messages were caused by the "DATA" initialization statement; the "f77" seems to expect that the integer variable specified in the DATA statement to be a 4-byte long integer.

As a solution, we suggest that you use Greenhills Optimizing Fortran compiler (available from Unisoft). For more details, search the Technical Info library under "UniSoft."

Keywords: <None>

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