



# Tech Info Library

## A/UX: Missing Toolbox ROM Routines (9/94)

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TOPIC -----

Using A/UX 3.0, I can't compile my programs because four routines aren't found by the linker.

Here's a sample program that demonstrates missing routines:

-----ttd.c-----

```
#include <printing.h>
#include <osutils.h>

main()
{
    int    rom,machine;

    GetDateTime();
    Environs (&rom, &machine);
    PrStlInit();
    PrDlgMain();
}
```

-----Makefile-----

```
# makefile for testing ttd.c

CFLAGS = -O -I /usr/include/mac -B /usr/lib/big/
LDFLAGS = /usr/lib/low.o -lmac_s -lat -lld -lmr -lc_s /lib/crt0.o \
        /usr/lib/low.ld

SRC = ttd.o

ttd: $(SRC)
    ld /usr/lib/macCRT0.o /lib/crt2.o -o ttd $(SRC) \
    $(LDFLAGS)
```

-----StdOut/StdErr-----

```
$ make
cc -O -I /usr/include/mac -B /usr/lib/big/ -c ttt.c
ld /usr/lib/maccrt0.o /lib/crt2.o -o ttt ttt.o \
/usr/lib/low.o -lmac_s -lat -lld -lmr -lc_s /lib/crtn.o
/usr/lib/low.ld
undefined                first referenced
symbol                    in file
GetDateTime               ttt.o
Environ                   ttt.o
PrStlInit                 ttt.o
PrDlgMain                 ttt.o
ld fatal: Symbol referencing errors. No output written to ttt
Make: *** Error: Update of ttt terminated with exit code 13
Make: [line 10 in /home/dumais/Makefile]
```

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I've found alternate ways of getting the time and the machine type, but I can't find a solution for the printing routines.

Where are these routines implemented in A/UX? I have searched the /usr/lib/libmac.a and /usr/lib/libmac\_s.a libraries for the missing routines.

DISCUSSION -----

In A/UX 2.0, 2.0.1, and 3.0 we have verified this problem. The above A/UX Toolbox ROM routines are not included in any of the Macintosh libraries and aren't supported by A/UX.

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