**KTIME(e)** **KTIME(e)**

NAME

ktime – give detailed kernel time of a command

SYNOPSIS

**ktime** [ **-s** ] command

DESCRIPTION

The given command is executed; after it has completed, *ktime* gives a detailed summary of times spent in various parts of the kernel code. Times are given as clock ticks (1/60th of a second) and as fractions of seconds. The different code areas in the kernel include:

| | | |
|---|---|---|
| 0 | lc | low core |
| 1 | schd | scheduler |
| 2 | sidle | idle waiting for swap |
| 3 | idle | system idle |
| 4 | msg | message processing |
| 5 | mm | memory manager |
| 6 | ctxt | context change |
| 7 | disp | dispatcher |
| 8 | emt | EMT handler |
| 9 | faults | fault handler |
| 10 | other | everything else |

In addition, *ktime* prints the elapsed time for the command (real time), the time spent in the system, and the time spent in execution of the command. System time is broken up into two parts, kernel and supervisor. The execution time will depend on what kind of memory the program happens to land in; the user time in MOS memory is often half what it is in core memory.

Besides reporting detailed timing information, *ktime* also prints out a histogram of the number of times that each EMT in the system was invoked, while the command was executed. Unfortunately, this histogram represents *all* EMTs executed (by all programs), while the command was executed.

The times and other statistics are printed on the diagnostic output stream.

A kernel symbol table file may be specified with the *-s* flag, if it is other than "/mrt/krn.sym". The symbol table used must correspond to the system running when *ktime* is invoked.

BUGS

Elapsed time is accurate to the second, while the CPU times are measured to the 60th second. Thus the sum of the CPU times can be up to a second larger than the elapsed time.

Supervisor times are not very accurate and in fact are not to be believed. (They are usually zero).

The interpretation of the statistics must be done carefully if more than one command is being executed simultaneously.