

NAME

moncontrol, **monstartup** - control execution profile

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

```
#include <sys/types.h>
```

```
#include <sys/gmon.h>
```

```
void
```

```
moncontrol(int mode);
```

```
void
```

```
monstartup(u_long lowpc, u_long highpc);
```

DESCRIPTION

An executable program compiled using the **-pg** option to cc(1) automatically includes calls to collect statistics for the gprof(1) call-graph execution profiler. In typical operation, profiling begins at program startup and ends when the program calls exit. When the program exits, the profiling data are written to the file *progname.gmon*, where progname is the name of the program, then gprof(1) can be used to examine the results.

The **moncontrol()** function selectively controls profiling within a program. When the program starts, profiling begins. To stop the collection of histogram ticks and call counts use **moncontrol(0)**; to resume the collection of histogram ticks and call counts use **moncontrol(1)**. This feature allows the cost of particular operations to be measured. Note that an output file will be produced on program exit regardless of the state of **moncontrol()**.

Programs that are not loaded with **-pg** may selectively collect profiling statistics by calling **monstartup()** with the range of addresses to be profiled. The *lowpc* and *highpc* arguments specify the address range that is to be sampled; the lowest address sampled is that of *lowpc* and the highest is just below *highpc*. Only functions in that range that have been compiled with the **-pg** option to cc(1) will appear in the call graph part of the output; however, all functions in that address range will have their execution time measured. Profiling begins on return from **monstartup()**.

ENVIRONMENT

The following environment variables affect the execution of **moncontrol**:

PROFIL_USE_PID If set, the pid of the process is inserted into the filename.

FILES

progname.gmon execution data file

SEE ALSO

cc(1), gprof(1), profil(2), clocks(7)