

NAME

ratecheck, **ppsratecheck** - event rate limiting

SYNOPSIS

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

int

```
ratecheck(struct timeval *lasttime, const struct timeval *mininterval);
```

int

```
ppsratecheck(struct timeval *lasttime, int *curpps, int maxpps);
```

DESCRIPTION

The **ratecheck** and **ppsratecheck** functions facilitate rate-limiting of arbitrary events. The former enforces a minimum interval between events while the latter enforces a maximum number of events per second.

The **ratecheck** function compares the current time to the value pointed to by *lasttime*. If the difference is equal to or greater than *mininterval*, it returns a non-zero value and updates *lasttime* to the current time. Otherwise, it returns zero.

The **ppsratecheck** function first compares the current time to *lasttime*. If at least a full second has passed, the value pointed to by the *curpps* argument is reset to 1 and *lasttime* is updated to the current time. Otherwise, *curpps* is incremented and *lasttime* is left untouched. In either case, **ppsratecheck** returns a non-zero value if and only if the updated *curpps* is less than or equal to *maxpps* or *maxpps* is negative.

SEE ALSO

counter(9)

HISTORY

The **ratecheck** and **ppsratecheck** functions first appeared in FreeBSD 5.1.