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Red Hat Enterprise Linux Release 9.2 Manual Pages on 's390_runtime_instr.2' command

\$ man s390_runtime_instr.2

S390_RUNTIME_INSTR(2) System Calls Manual S390_RUNTIME_INSTR(2)

NAME

s390_runtime_instr - enable/disable s390 CPU run-time instrumentation

SYNOPSIS

```
#include <asm/runtime_instr.h>

int s390_runtime_instr(int command, int signum);
```

DESCRIPTION

The `s390_runtime_instr()` system call starts or stops CPU run-time instrumentation for the calling thread.

The `command` argument controls whether run-time instrumentation is started (`S390_RUNTIME_INSTR_START`, 1) or stopped (`S390_RUNTIME_INSTR_STOP`, 2) for the calling thread.

The `signum` argument specifies the number of a real-time signal. This argument was used to specify a signal number that should be delivered to the thread if the run-time instrumentation buffer was full or if the `run-time-instrumentation-halted` interrupt had occurred. This feature was never used, and in Linux 4.4 support for this feature was removed; thus, in current kernels, this argument is ignored.

RETURN VALUE

On success, `s390_runtime_instr()` returns 0 and enables the thread for run-time instrumentation by assigning the thread a default run-time instrumentation control block. The caller can then read and modify the control block and start the run-time instrumentation. On error, -1 is

returned and `errno` is set to one of the error codes listed below.

ERRORS

`EINVAL` The value specified in `command` is not a valid command.

`EINVAL` The value specified in `signum` is not a real-time signal number.

From Linux 4.4 onwards, the `signum` argument has no effect, so that an invalid signal number will not result in an error.

`ENOMEM` Allocating memory for the run-time instrumentation control block failed.

EOPNOTSUPP

The run-time instrumentation facility is not available.

VERSIONS

This system call is available since Linux 3.7.

CONFORMING TO

This Linux-specific system call is available only on the s390 architecture. The run-time instrumentation facility is available beginning with System z EC12.

NOTES

Glibc does not provide a wrapper for this system call, use `syscall(2)` to call it.

The `asm/runtime_instr.h` header file is available since Linux 4.16.

Starting with Linux 4.4, support for signalling was removed, as was the check whether `signum` is a valid real-time signal. For backwards compatibility with older kernels, it is recommended to pass a valid real-time signal number in `signum` and install a handler for that signal.

SEE ALSO

`syscall(2)`, `signal(7)`

COLOPHON

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