



## ***Linux Ubuntu 26.04 Manual Pages on command 's390\_runtime\_instr.2'***

**\$ 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

### LIBRARY

Standard C library (libc, -lc)

### SYNOPSIS

```
#include <asm/runtime_instr.h> /* Definition of S390_* constants */
#include <sys/syscall.h>      /* Definition of SYS_* constants */
#include <unistd.h>
```

```
int syscall(SYS_s390_runtime_instr, int command, int signum);
```

Note: glibc provides no wrapper for s390\_runtime\_instr(), necessitating the use of syscall(2).

### 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 indicate the error.

## 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.

## STANDARDS

Linux on s390.

## HISTORY

Linux 3.7. System z EC12.

## NOTES

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)`

Linux man-pages 6.17

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`s390_runtime_instr(2)`