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### ***Rocky Enterprise Linux 9.2 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

#### **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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