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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'posix\_trace\_attr\_getlogsize.3p' command**

**\$ man posix\_trace\_attr\_getlogsize.3p**

POSIX\_TRACE\_ATTR\_GETLOGSIZEPOSIX Programmer's MPOSIX\_TRACE\_ATTR\_GETLOGSIZE(3P)

### PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

### NAME

posix\_trace\_attr\_getlogsize, posix\_trace\_attr\_getmaxdatasize, posix\_trace\_attr\_getmaxsystemeventsizesize, posix\_trace\_attr\_getmaxusereventsizesize, posix\_trace\_attr\_getstreamsize, posix\_trace\_attr\_setlogsize, posix\_trace\_attr\_setmaxdatasize, posix\_trace\_attr\_setstreamsize ? retrieve and set trace stream size attributes (TRACING)

### SYNOPSIS

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

int posix_trace_attr_getlogsize(const trace_attr_t *restrict attr,
    size_t *restrict logsize);

int posix_trace_attr_getmaxdatasize(const trace_attr_t *restrict attr,
    size_t *restrict maxdatasize);

int posix_trace_attr_getmaxsystemeventsizesize(
    const trace_attr_t *restrict attr,
    size_t *restrict eventsizesize);

int posix_trace_attr_getmaxusereventsizesize(
```

```

const trace_attr_t *restrict attr,
size_t data_len, size_t *restrict eventsize);
int posix_trace_attr_getstreamsize(const trace_attr_t *restrict attr,
size_t *restrict streamsize);
int posix_trace_attr_setlogsize(trace_attr_t *attr,
size_t logsize);
int posix_trace_attr_setmaxdatasize(trace_attr_t *attr,
size_t maxdatasize);
int posix_trace_attr_setstreamsize(trace_attr_t *attr,
size_t streamsize);

```

## DESCRIPTION

The `posix_trace_attr_getlogsize()` function shall copy the log size, in bytes, from the `log-max-size` attribute of the attributes object pointed to by the `attr` argument into the variable pointed to by the `logsize` argument. This log size is the maximum total of bytes that shall be allocated for system and user trace events in the trace log. The default value for the `log-max-size` attribute is implementation-defined.

The `posix_trace_attr_setlogsize()` function shall set the maximum allowed size, in bytes, in the `log-max-size` attribute of the attributes object pointed to by the `attr` argument, using the size value supplied by the `logsize` argument.

The trace log size shall be used if the `log-full-policy` attribute is set to `POSIX_TRACE_LOOP` or `POSIX_TRACE_UNTIL_FULL`. If the `log-full-policy` attribute is set to `POSIX_TRACE_APPEND`, the implementation shall ignore the `log-max-size` attribute.

The `posix_trace_attr_getmaxdatasize()` function shall copy the maximum user trace event data size, in bytes, from the `max-data-size` attribute of the attributes object pointed to by the `attr` argument into the variable pointed to by the `maxdatasize` argument. The default value for the `max-data-size` attribute is implementation-defined.

The `posix_trace_attr_getmaxsystemeventsizesize()` function shall calculate the maximum memory size, in bytes, required to store a single system trace event. This value is calculated for the trace stream attributes

object pointed to by the `attr` argument and is returned in the `variable` pointed to by the `eventsizesize` argument.

The `values` returned as the maximum memory sizes of the user and system trace events shall be such that if the sum of the maximum memory sizes of a set of the trace events that may be recorded in a trace stream is less than or equal to the `stream-min-size` attribute of that trace stream, the system provides the necessary resources for recording all those trace events, without loss.

The `posix_trace_attr_getmaxusereventsizesize()` function shall calculate the maximum memory size, in bytes, required to store a single user trace event generated by a call to `posix_trace_event()` with a `data_len` parameter equal to the `data_len` value specified in this call. This value is calculated for the trace stream attributes object pointed to by the `attr` argument and is returned in the variable pointed to by the `eventsizesize` argument.

The `posix_trace_attr_getstreamsize()` function shall copy the stream size, in bytes, from the `stream-min-size` attribute of the attributes object pointed to by the `attr` argument into the variable pointed to by the `streamsize` argument.

This `stream size` is the current total memory size reserved for system and user trace events in the trace stream. The default value for the `stream-min-size` attribute is implementation-defined. The stream size refers to memory used to store trace event records. Other stream data (for example, trace attribute values) shall not be included in this size.

The `posix_trace_attr_setmaxdatasize()` function shall set the maximum allowed size, in bytes, in the `max-data-size` attribute of the attributes object pointed to by the `attr` argument, using the `size` value supplied by the `maxdatasize` argument. This maximum size is the maximum allowed size for the user data argument which may be passed to `posix_trace_event()`. The implementation shall be allowed to truncate data passed to `trace_user_event` which is longer than `maxdatasize`.

The `posix_trace_attr_setstreamsize()` function shall set the minimum al?

lowed size, in bytes, in the stream-min-size attribute of the attributes object pointed to by the attr argument, using the size value supplied by the streamsize argument.

## RETURN VALUE

Upon successful completion, these functions shall return a value of zero. Otherwise, they shall return the corresponding error number.

The `posix_trace_attr_getlogsize()` function stores the maximum trace log allowed size in the object pointed to by `logsize`, if successful.

The `posix_trace_attr_getmaxdatasize()` function stores the maximum trace event record memory size in the object pointed to by `maxdatasize`, if successful.

The `posix_trace_attr_getmaxsystemeventsizesize()` function stores the maximum memory size to store a single system trace event in the object pointed to by `eventsizesize`, if successful.

The `posix_trace_attr_getmaxusereventsizesize()` function stores the maximum memory size to store a single user trace event in the object pointed to by `eventsizesize`, if successful.

The `posix_trace_attr_getstreamsize()` function stores the maximum trace stream allowed size in the object pointed to by `streamsize`, if successful.

## ERRORS

These functions may fail if:

**EINVAL** The value specified by one of the arguments is invalid.

The following sections are informative.

## EXAMPLES

None.

## APPLICATION USAGE

None.

## RATIONALE

None.

## FUTURE DIRECTIONS

The following functions:

`posix_trace_attr_getlogsize()`

posix\_trace\_attr\_getmaxdatasize()  
posix\_trace\_attr\_getmaxsystemeventsizesize()  
posix\_trace\_attr\_getmaxuserereventsizesize()  
posix\_trace\_attr\_getstreamsize()  
posix\_trace\_attr\_setlogsize()  
posix\_trace\_attr\_setmaxdatasize()  
posix\_trace\_attr\_setstreamsize()

may be removed in a future version.

#### SEE ALSO

posix\_trace\_attr\_destroy(), posix\_trace\_create(), posix\_trace\_event(),  
posix\_trace\_get\_attr()

The Base Definitions volume of POSIX.1-2017, <sys\_types.h>, <trace.h>

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