



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'posix_trace_get_filter.3p' command

\$ man posix_trace_get_filter.3p

POSIX_TRACE_GET_FILTER(3P) POSIX Programmer's Manual POSIX_TRACE_GET_FILTER(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_get_filter, posix_trace_set_filter ? retrieve and set the filter of an initialized trace stream (TRACING)

SYNOPSIS

```
#include <trace.h>

int posix_trace_get_filter(trace_id_t trid, trace_event_set_t *set);

int posix_trace_set_filter(trace_id_t trid,
    const trace_event_set_t *set, int how);
```

DESCRIPTION

The `posix_trace_get_filter()` function shall retrieve, into the argument pointed to by `set`, the actual trace event filter from the trace stream specified by `trid`.

The `posix_trace_set_filter()` function shall change the set of filtered trace event types after a trace stream identified by the `trid` argument is created. This function may be called prior to starting the trace stream, or while the trace stream is active. By default, if no call is made to `posix_trace_set_filter()`, all trace events shall be recorded

(that is, none of the trace event types are filtered out).

If this function is called while the trace is in progress, a special system trace event, `POSIX_TRACE_FILTER`, shall be recorded in the trace indicating both the old and the new sets of filtered trace event types (see Table 2-4, Trace and Trace Event Filter Options: System Trace Events and Table 2-6, Trace, Trace Log, and Trace Event Filter Options: System Trace Events).

If the `posix_trace_set_filter()` function is interrupted by a signal, an error shall be returned and the filter shall not be changed. In this case, the state of the trace stream shall not be changed.

The value of the argument `how` indicates the manner in which the set is to be changed and shall have one of the following values, as defined in the `<trace.h>` header:

`POSIX_TRACE_SET_EVENTSET`

The resulting set of trace event types to be filtered shall be the trace event type set pointed to by the argument `set`.

`POSIX_TRACE_ADD_EVENTSET`

The resulting set of trace event types to be filtered shall be the union of the current set and the trace event type set pointed to by the argument `set`.

`POSIX_TRACE_SUB_EVENTSET`

The resulting set of trace event types to be filtered shall be all trace event types in the current set that are not in the set pointed to by the argument `set`; that is, remove each element of the specified set from the current filter.

RETURN VALUE

Upon successful completion, these functions shall return a value of zero. Otherwise, they shall return the corresponding error number. The `posix_trace_get_filter()` function stores the set of filtered trace event types in `set`, if successful.

ERRORS

These functions shall fail if:

`EINVAL` The value of the `trid` argument does not correspond to an active

trace stream or the value of the argument pointed to by `set` is invalid.

EINTR The operation was interrupted by a signal.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

The `posix_trace_get_filter()` and `posix_trace_set_filter()` functions may be removed in a future version.

SEE ALSO

Table 2-4, Trace and Trace Event Filter Options: System Trace Events,
Table 2-6, Trace, Trace Log, and Trace Event Filter Options: System
Trace Events, `posix_trace_eventset_add()`

The Base Definitions volume of POSIX.1?2017, `<trace.h>`

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