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

\$ man posix_trace_eventid_equal.3p

POSIX_TRACE_EVENTID_EQUAL(3POSIX Programmer's ManPOSIX_TRACE_EVENTID_EQUAL(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_eventid_equal, posix_trace_eventid_get_name,
posix_trace_trid_eventid_open ? manipulate the trace event type identifier (TRACING)

SYNOPSIS

```
#include <trace.h>

int posix_trace_eventid_equal(trace_id_t trid, trace_event_id_t event1,
    trace_event_id_t event2);

int posix_trace_eventid_get_name(trace_id_t trid,
    trace_event_id_t event, char *event_name);

int posix_trace_trid_eventid_open(trace_id_t trid,
    const char *restrict event_name,
    trace_event_id_t *restrict event);
```

DESCRIPTION

The posix_trace_eventid_equal() function shall compare the trace event type identifiers event1 and event2 from the same trace stream or the same trace log identified by the trid argument. If the trace event type

identifiers event1 and event2 are from different trace streams, the return value shall be unspecified.

The `posix_trace_eventid_get_name()` function shall return, in the argument pointed to by `event_name`, the trace event name associated with the trace event type identifier identified by the argument `event`, for the trace stream or for the trace log identified by the `trid` argument. The name of the trace event shall have a maximum of `{TRACE_EVENT_NAME_MAX}` characters (which has the minimum value `{_POSIX_TRACE_EVENT_NAME_MAX}`).

Successive calls to this function with the same trace event type identifier and the same trace stream identifier shall return the same event name.

The `posix_trace_trid_eventid_open()` function shall associate a user trace event name with a trace event type identifier for a given trace stream. The trace stream is identified by the `trid` argument, and it shall be an active trace stream. The trace event name is the string pointed to by the argument `event_name`. It shall have a maximum of `{TRACE_EVENT_NAME_MAX}` characters (which has the minimum value `{_POSIX_TRACE_EVENT_NAME_MAX}`). The number of user trace event type identifiers that can be defined for any given process is limited by the maximum value `{TRACE_USER_EVENT_MAX}`, which has the minimum value `{_POSIX_TRACE_USER_EVENT_MAX}`.

If the Trace Inherit option is not supported, the `posix_trace_trid_eventid_open()` function shall associate the user trace event name pointed to by the `event_name` argument with a trace event type identifier that is unique for the process being traced in the trace stream identified by the `trid` argument, and is returned in the variable pointed to by the `event` argument. If the user trace event name has already been mapped for the traced process, then the previously assigned trace event type identifier shall be returned. If the per-process user trace event name limit represented by `{TRACE_USER_EVENT_MAX}` has been reached, the pre-defined `POSIX_TRACE_UNNAMED_USEREVENT` (see Table 2-7, Trace Option: User Trace Event) user trace event shall be returned.

If the Trace Inherit option is supported, the `posix_trace_trid_eventid_open()` function shall associate the user trace event name pointed to by the `event_name` argument with a trace event type identifier that is unique for all the processes being traced in the trace stream identified by the `trid` argument, and is returned in the variable pointed to by the `event` argument. If the user trace event name has already been mapped for the traced processes, then the previously assigned trace event type identifier shall be returned. If the per-process user trace event name limit represented by `{TRACE_USER_EVENT_MAX}` has been reached, the pre-defined `POSIX_TRACE_UNNAMED_USEREVENT` (see Table 2-7, Trace Option: User Trace Event) user trace event shall be returned.

RETURN VALUE

Upon successful completion, the `posix_trace_eventid_get_name()` and `posix_trace_trid_eventid_open()` functions shall return a value of zero.

Otherwise, they shall return the corresponding error number.

The `posix_trace_eventid_equal()` function shall return a non-zero value if `event1` and `event2` are equal; otherwise, a value of zero shall be returned. No errors are defined. If either `event1` or `event2` are not valid trace event type identifiers for the trace stream specified by `trid` or if the `trid` is invalid, the behavior shall be unspecified.

The `posix_trace_eventid_get_name()` function stores the trace event name value in the object pointed to by `event_name`, if successful.

The `posix_trace_trid_eventid_open()` function stores the trace event type identifier value in the object pointed to by `event`, if successful.

ERRORS

The `posix_trace_eventid_get_name()` and `posix_trace_trid_eventid_open()` functions shall fail if:

`EINVAL` The `trid` argument was not a valid trace stream identifier.

The `posix_trace_trid_eventid_open()` function shall fail if:

`ENAMETOOLONG`

The size of the name pointed to by the `event_name` argument was longer than the implementation-defined value `{TRACE_EVENT_NAME_MAX}`.

The `posix_trace_eventid_get_name()` function shall fail if:

`EINVAL` The `trace_event_type` identifier `event` was not associated with any name.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

The `posix_trace_eventid_equal()`, `posix_trace_eventid_get_name()`, and `posix_trace_trid_eventid_open()` functions may be removed in a future version.

SEE ALSO

Table 2-7, Trace Option: User Trace Event, `exec`, `posix_trace_event()`, `posix_trace_getnext_event()`

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

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