

Op:sys_resource.h

sys/resource.h - definitions for XSI resource operations

```
#include <sys/resource.h>
```

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DESCRIPTION

The `<sys/resource.h>` header shall define the following symbolic constants as possible values of the *which* argument of `getpriority()` and `setpriority()`:

PRIO_PROCESS

Identifies the *who* argument as a process ID.

PRIO_PGRP

Identifies the *who* argument as a process group ID.

PRIO_USER

Identifies the *who* argument as a user ID.

The following type shall be defined through **typedef**:

rlim_t Unsigned integer type used for limit values.

The following symbolic constants shall be defined:

RLIM_INFINITY

A value of **rlim_t** indicating no limit.

RLIM_SAVED_MAX

A value of type **rlim_t** indicating an unrepresentable saved hard

limit.

RLIM_SAVED_CUR

A value of type **rlim_t** indicating an unrepresentable saved soft limit.

On implementations where all resource limits are representable in an object of type **rlim_t**, **RLIM_SAVED_MAX** and **RLIM_SAVED_CUR** need not be distinct from **RLIM_INFINITY**.

The following symbolic constants shall be defined as possible values of the **who** parameter of **getrusage()**:

RUSAGE_SELF

Returns information about the current process.

RUSAGE_CHILDREN

Returns information about children of the current process.

The **<sys/resource.h>** header shall define the **rlimit** structure that includes at least the following members:

rlim_t rlim_cur The current (soft) limit.

rlim_t rlim_max The hard limit.

The **<sys/resource.h>** header shall define the **rusage** structure that includes at least the following members:

struct timeval ru_utime User time used.

struct timeval ru_stime System time used.

The **timeval** structure shall be defined as described in **<sys/time.h>** .

The following symbolic constants shall be defined as possible values for the **resource** argument of **getrlimit()** and **setrlimit()**:

RLIMIT_CORE

Limit on size of **core** file.

RLIMIT_CPU

Limit on CPU time per process.

RLIMIT_DATA

Limit on data segment size.

RLIMIT_FSIZE

Limit on file size.

RLIMIT_NOFILE

Limit on number of open files.

RLIMIT_STACK

Limit on stack size.

RLIMIT_AS

Limit on address space size.

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
int  getpriority(int, id_t);
int  getrlimit(int, struct rlimit *);
int  getrusage(int, struct rusage *);
int  setpriority(int, id_t, int);
int  setrlimit(int, const struct rlimit *);
```

The `id_t` type shall be defined through `typedef` as described in `<sys/types.h>` .

Inclusion of the `<sys/resource.h>` header may also make visible all symbols from `<sys/time.h>`.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

RELATED

`<sys/time.h>` , `<sys/types.h>` , the System Interfaces volume of IEEE Std 1003.1-2001, `getpriority()`, `getrusage()`, `getrlimit()`

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