.TH SET\_LEVEL\_ALLOC 2 04/08/2020 set\_level\_alloc "System Call"

.SH NAME

set\_level\_alloc - system call that changes the allocation time of a level.

.SH SYNOPSIS

set\_level\_alloc(int level, int new\_allocation)

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syscall(338, int level, int new\_allocation)

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level - integer process level based on the tag’s LSBs

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new\_allocation - an int time value to be updated in the allocation time at the level

.SH DESCRIPTION

set\_ level\_alloc is a system call that attempts to change the allocation time of the level identified by tag’s LSBs.

The project guidelines are what decides whether the time change will occur.

If all conditions are met the old-time value will be updated to the new time value at that level, else if any conditions were to fail then it would return -1.

These conditions are as such:

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1) An initial allocation of 10ms for each level (always initial value on booting up).

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2) The sum of the allocations determines the cycle time for all the levels to obtain the CPU and cannot be less than 5ms.

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3) The allocation for a given level may be less than 5ms, including 0ms.

.SH ERRORS

For any errors, a condition were to fail which it then would return -1.

Such cases include but not limited too:

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a) Inputting an invalid level or new\_allocation will return -1 and not run the system call.

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b) Attempting set the allocation time of a level while not a superuser.

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c) Attempting to set the allocation time for a given level less than 0ms.

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d) Attempting to set the sum of the allocation times to be less than 5ms.

.SH NOTES

a) Each level is allocated the CPU time with the corresponding allocation time for that level.

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b) Only processes whose tag holds a level=to the level that currently has the CPU can compete for the CPU—and only if that level holds the CPU.

.SH SEE ALSO

set\_alloc (3)

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