

OPERATING SYSTEMS

Pintos: Report Project 5

Group 12

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Report Instructions

- Please report **all** changes, even if minor, that you did to complete the project.
- You have to list all files that have been modified, and for each of them, list all functions/structs that have been modified or added (clearly stating "modified"/"added"). Then add a brief explanation or motivation for all those changes.
- A single report is required for each group. For the first individual project, each student submits a report together with the source code files that were changed.

1 FILES CHANGED

- pintos/threads/thread.c
- pintos/userprog/syscall.c
- pintos/userprog/process.c

2 CHANGES

pintos/threads/thread.c

- void thread_schedule_tail (struct thread *prev) (*implemented*):
(ln. 767) Added condition to prevent the deallocation of a parent thread waiting to resume.

pintos/userprog/syscall.c

- static void syscall_handler (struct intr_frame *f) (*implemented*):
(ln. 49) Added check for the first argument of the system call.
- static void syscall_exit (uint32_t *args, uint32_t *eax) (*implemented*):
(ln. 64) Modified parameters and added argument validity check.
- static void syscall_write (uint32_t *args, uint32_t *eax) (*implemented*):
(ln. 87) Modified parameters, added argument and address validity check.
- static void syscall_wait (uint32_t *args, uint32_t *eax) (*added*):
(ln. 104) Checks arguments validity and calls the process_wait() function in process.c.
- static void syscall_exec (uint32_t *args, uint32_t *eax) (*added*):
(ln. 107) Checks for argument and address validity and then calls process_exec() function in process.c.
- static bool check_args_validity (uint32_t *args, int num_args) (*added*):
(ln. 125) Checks if the given number of arguments is present in the array and checks if each argument is valid.
- static bool check_arg_addr_validity (void *args) (*added*):
(ln 141) Checks if each argument's pointer is null and if it is a pointer to a mapped virtual memory.

pintos/userprog/process.c

- static void process_execute (const char * command) (*implemented*):
(ln. 95) the function has been implemented in a way that it checks that the executable file is valid.