

DIYAH ANGGRAEY
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ILMU KOMPUTER 2018

Nama file dan function yang diubah:

- Makefile
CS333_PROJECT ?= 1
PRINT_SYSCALLS ?= 0 (diubah sesekali untuk testing)
CS333_UPROGS += _date
- Syscall.c

```
#ifdef CS333_P1
extern int sys_date(void);
#endif //CS333_P1
    o Syscalls[]
      #ifdef CS333_P1
      [SYS_date] sys_date,
      #endif // CS333_P1
    o Syscallnames[]
      [SYS_date] "date"
    o Syscall()
      #if defined(CS333_P1) && defined(PRINT_SYSCALLS)
      cprintf("%s -> %d\n", syscallnames[num], curproc->tf->eax);
      #endif // CS333_P1 and PRINT_SYSCALL
```
- Syscall.h

```
#define SYS_date    SYS_halt+1
```
- user.h

```
#ifdef CS333_P1
int date(struct rtcdate*);
#endif // CS333_P1
```
- usys.S

```
SYSCALL(date)
```
- sysproc.c

```
#ifdef CS333_P1
int sys_date(void)
{
    struct rtcdate* d;
```

```

    if(argptr(0, (void*)&d, sizeof(struct rtcdate)) < 0)
        return -1;
    cmostime(d);
    return 0;
}
#endif //CS333_P1

```

- proc.c

- procdumpP1()


```

procdumpP1(struct proc *p, char *state_string)
{
    int elapsed_ms = ticks - p->start_ticks;
    int elapsed_s = elapsed_ms/1000;
    elapsed_ms = elapsed_ms % 1000;
    char* zeros = "";
    if(elapsed_ms < 100 && elapsed_ms >= 10){
        zeros = "0";
    }
    if(elapsed_ms < 10){
        zeros = "00";
    }
    cprintf("%d\t%s\t\t%d.%s%d\t%s\t%d\t", p->pid,p-
    >name,elapsed_s,zeros,elapsed_ms,state_string,p->sz);

}
#endif

```
- procdump()


```

uint pc[10];

```

- proc.h

- proc{ }


```

#ifdef CS333_P1
    uint start_ticks;                // for control-p
#endif

```