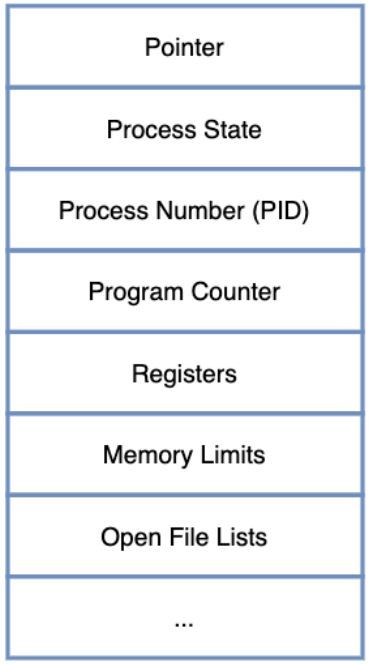
Process

- 시스템 메모리에서 실행 중인 프로그램
- 스케줄링 대상인 태스크

📌 프로세스는 어떤 구조체로 식별되는가?

- 프로세스 관리 → Task Descriptor **자료구조**
- 최상단에 thread Info 구조체 존재

```
struct task_struct {
    struct thread_info
     //프로세스 ID 등
     //필요한 정보들..
}
```

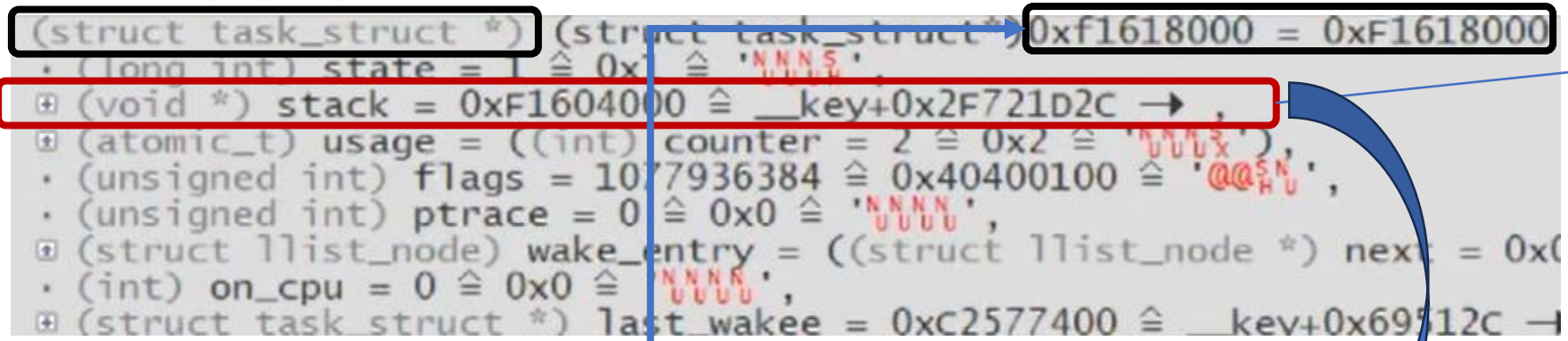


📌 Task 란?

- Process 라고 봐도 무방

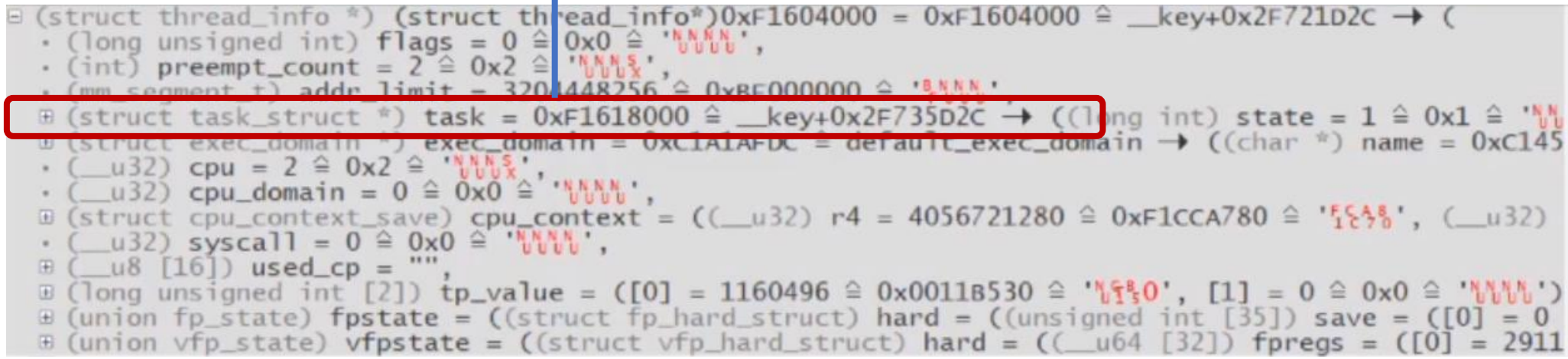
Process

Process의 자료구조



Process의 stack 상단 주소
→ stack pointer

Process의 Thread Info 구조체 :: stack을 Tread info로 casting



- Thread info → Process 참조 :: 따라서, Thread info가 자신이 포함된 Process 확인 가능

Process

Thread Info 자료구조

```
(struct thread_info *) (struct thread_info*)0xF1604000 = 0xF1604000 ≙ __key+0
 · (long unsigned int) flags = 0 ≙ 0x0 ≙ 'NNNN',
 · (int) preempt_count = 2 ≙ 0x2 ≙ 'NNNS',
 · (mm_segment_t) addr_limit = 3204448256 ≙ 0xBF000000 ≙ 'BNNN',
⊞(struct task_struct *) task = 0xF1618000 ≙ __key+0x2F735D2C → ((long int)
⊞(struct exec_domain *) exec_domain = 0xC1A1AFDC ≙ default_exec_domain → ((
 · (__u32) cpu = 2 ≙ 0x2 ≙ 'NNNS',
 · (__u32) cpu_domain = 0 ≙ 0x0 ≙ 'NNNN',
⊟(struct cpu_context_save) cpu_context = (
   · (__u32) r4 = 4056721280 ≙ 0xF1CCA780 ≙ 'FCA8',
   · (__u32) r5 = 4049698816 ≙ 0xF1618000 ≙ 'F8N',
   · (__u32) r6 = 3842940160 ≙ 0xE50E9D00 ≙ 'ES9N',
   · (__u32) r7 = 3932291520 ≙ 0xEA6201C0 ≙ 'EbSC',
   · (__u32) r8 = 3248547128 ≙ 0xC1A0E538 ≙ 'CAE8',
   · (__u32) r9 = 3880364992 ≙ 0xE749ABC0 ≙ 'EIAC',
   · (__u32) sl = 4049699952 ≙ 0xF1618470 ≙ 'Fap',
   · (__u32) fp = 4049624708 ≙ 0xF1605E84 ≙ 'F^',
   · (__u32) sp = 4049624640 ≙ 0xF1605E40 ≙ 'F^@',
   · (__u32) pc = 3237955160 ≙ 0xC0FF4658 ≙ 'FX',
⊞  (__u32 [2]) extra = ([0] = 0 ≙ 0x0 ≙ 'NNNN', [1] = 0 ≙ 0x0 ≙ 'NNNN')),
```

- Thread Info의 CPU Context field에 Register 값들을 저장해 놓았다.
- 즉, CPU Context란 Register의 값들이다.