

Project 2

Zen and the art of sending signals

Background – Context Switching

- One processor and multiple threads running concurrently – How?
- Give each thread a small time quantum to run.
- When this quantum expires, or the thread blocks, **context-switch** to a different thread.
 1. Where should I save the thread context during a context-switch?
 2. What should this context consist of?

Background – Kernel Stack

- User process is a kernel thread with `USER_CONTEXT` structure.
- Store the current context (state) before context switching.
- Where is the kernel stack?

```
struct Kernel_Thread {  
    unsigned long esp; // Stack pointer (absolute)  
    void* stackPage; //The beginning of the stack  
    .....  
};
```

- **esp** points at the end of the stack (stack grows down from higher to lower address)