

pthread

CS 537 – Introduction to Operating Systems

What are pthreads?

- Posix 1003.1c defines a thread interface
 - pthreads
 - defines how threads should be created, managed, and destroyed
- Unix provides a pthreads library
 - API to create and manage threads
 - you don't need to worry about the implementation details
 - this is a good thing

Creating Threads

- **Prototype:**

- `int pthread_create(pthread_t *tid, const pthread_attr_t *tattr, void*(*start_routine)(void *), void *arg);`

- *tid*: an unsigned long integer that indicates a thread's id
 - *tattr*: attributes of the thread – usually NULL
 - *start_routine*: the name of the function the thread starts executing
 - *arg*: the argument to be passed to the start routine – only one

- after this function gets executed, a new thread has been created and is executing the function indicated by *start_routine*