|  |  |
| --- | --- |
| **Student**: | Michael Escue |
| **Assignment**: | Assignment 2 |
| **Class**: | ECE 373 |
| **Instructors**: | Peter (PJ) Waskiewicz,  Charles Stoll |
| **Term**: | Spring 2019 |

**ASSIGNMENT 2**

1. Create and register a single character device (struct cdev).
   1. **REGISTERING A NEW CHAR**
   2. First, allocate a region
      1. int alloc\_chrdev\_region(dev\_t \*dev, unsigned int firstminor, unsigned int count, char \*name)
   3. Don’t forget to cleanup when finished (on \_exit call).
      1. void unregister\_chrdev\_region(dev\_t first, unsigned int count)
   4. alloc\_chrdev\_region() just configures device internal to kernel.
   5. No linkage to anything in the upper device subsystem
   6. cdev represents char devices inside the kernel.
   7. Initialized with:
      1. void cdev\_init(struct cdev \*cdev, struct file\_operations \*fops)
   8. Added with:
      1. int cdev\_add(struct cdev \*cdev, dev\_t num, unsigned int count)
   9. file\_operations must be configured and ready to go before “cdev\_add()”
   10. Cleaned up with:
       1. void cdev\_del(struct cdev \*cdev)