

## Program 2

**Due Date:** October 20, 2008

**Points:** 100

### Programs

1. (30 points) Modify the MINIX kernel to print your group's name when the system boots. Your boot banner should look like this (but replace "Matt Bishop" by your group's name):

```
MINIX 3.1.1. Copyright 2006, Vrije Universiteit, Amsterdam, The Netherlands
Matt Bishop's system
Executing in 32-bit protected mode.
```

**Hint:** Look for the word "Copyright" in the kernel files. That will help you figure out where to print the required line.

2. (70 points) Modify the MINIX kernel so that, whenever ^A is pressed *in cooked mode*, the system prints "Alert!", goes to the next line, and reprints the previously-entered line.

In the following, I pressed ^A just after I typed "hello". What I typed is in a regular typeface, and what the system typed is in a **bold typeface**. The cursor is after the "hello" on the second line.

```
helloAlert!
hello
```

**Hint:** This is very much like what ^R does, except that you don't print the ^R, and print "Alert!" instead. So look for where that action takes place, and use that code as an example.