

# Bailey Instructions

Brigham Young University

Unit Operations Lab

version 97.5

**Starting Up of Computer Controls** (Please note that at the beginning of each semester, the lab computers are setup to automatically perform steps a,b and c.)

a) Turn on the computer and monitor. Get ready to push ESC.

b) As the computer boots you will see the node [#] appear in the center of the screen. When this appears you have 3 seconds to press **ESC** once. If you do not press the key in time or if you press ESC more than once the computer will boot to the hard drive. In this case reboot the machine by holding down **control-alt-shift-del(keypad)** simultaneously and releasing.

c) After pressing ESC you should see the following menu:

N Boot to Network

D Boot to Disk

Enter 'N' or 'D' to Boot

Press **N** to boot onto the network.

d) After successfully booting, a long list of programs will be loaded. Wait patiently until a login prompt appears. You do not need a password. Press **control-alt-5** or **control-alt-6** to enter the U.O. lab and process control class menu. You should now see the Bailey <Main Menu> surrounded by a blue border. At the bottom is a list of sub-menus to choose from. All of these menus are selected by using the function keys on the top of the keyboard. **<F10> always exits from the menu you are in to the one previous.**

e) At the main menu push **F7** for Graphics displays (or **F1** for Group displays). The next display is the Display Summary.

f) From the Display Summary you can select control displays for any experiment on computer control in the lab using the function keys. (Pressing the shift key and a function key adds 10 to the number on the function key. Pressing the control key and a function key adds 20.) **Press the appropriate function key to select your experiment's display summary.**

g) You have now entered the Display Summary. This summary contains control and trending (charts) for the experiment. If more than one display is available, the Page Up and Page Down keys will allow you to move between them in order. The blue rectangles encasing control displays are called faceplates (the larger ones control variables in the experiment and the smaller ones are on/off switches). To select the desired faceplate press the corresponding letter or number sequence shown in red. All control may be accomplished inside these displays.

h) To operate a switch: Enter the faceplate by typing the 2 letter or number sequence shown in red. The faceplate border should now turn gray. Notice the menu that appears on the bottom of the screen (F7 set = on and F9 reset = off). Press **F7** to turn the switch on. Press **F9** to turn the switch off.

i) To change a set point: (The current setpoint is indicated by the green arrow on the right side of the vertical scale in the faceplate.) Enter the faceplate by pressing the 2 letter or number sequence shown in red. **Notice the menu that appears at the bottom of the screen.** Press **F1** to change the setpoint. Enter any of the inside numbers shown on the right side of the faceplate. **To exit the faceplate you must now hit F10 twice.**

### **On-line Data-Aquisition**

a) Push **F10** in succession until you reach the Main Menu.

b) Push **F4** for data acquisition.

c) Push **F9** for new data acquisition.

d) With Group highlighted press **Return** (pushing **G** is equivalent).

e) With Setup highlighted press **Return**.

f) With the letter corresponding to your experiment highlighted press **Return**.

g) Press **Q** to quit the second menu.

h) Press **O** to get the Output menu.

i) Press **S** to setup your output files.

j) Insert a DOS disk.

k) Carefully read the prompts. There are a number of specific rules for naming files:

You cannot save files to the hard drive

You **must specify the drive** followed by ":",

### **File names must end in .dat**

Example of a correctly named file: **a:/pipe1.dat**

l) Make sure you are ready to record data.

m) Arrow over to **GO** and press **Return**.

n) Type **Q** to quit data acquisition when you are finished.