

Lab 6

You will often need to examine the source code in this lab.
Use **make** to generate the executables.

child

1. Use **gdb** to determine where the program crashes; also determine why.
2. Use **man 7 signal** to find a list of signals; identify which ones are responsible for the core dumps
3. Explain output (text and core dumps)

exec_ls Explain the output

filelock The **filelock** program has two parts: a part useful for inclusion in libraries, and a part useful for debugging. To activate the debugging part, you'll need to compile with the **-DDEBUG -DDEBUG_TEST** flags to enable debugging.

1. Open two terminals. Use terminal#1 to read-lock bytes 23-30.
2. Use terminal#2 to write-lock bytes 23-30. What happens? Why?
3. Use terminal#2 to write-lock bytes 1-30. What happens? Why?
4. Quit **filelock** in terminal#1. Repeat Problem 2.

pipe()

- Determine how many bytes are buffered by **pipe()**. (HINT: **PIPE_BUF**)
- Explain the output.
- Change **pipes.c** so that the child waits for the parent to send it a message. Demonstrate your changed program to me (Dr Campbell).

runrace Explain the output.

waiter

- Explain the output.
- Run the program in such a way that its **WEXITSTATUS** is 5. What else changes in the output?