



Pair Programming

Goal

Understand the basics of “pair programming.”

Overview

Pair programming is a technique used in software development in which two programmers work together on a single piece of software.

Physically, they sit side-by-side at the computer. Only one types. The other “kibitzes”, that is, comments about what the typer is typing. The idea is that they both see what is being programmed, and so they spot typos or logical mistakes faster.

More fundamentally, they both know how the software is to work, and so they are effectively agreeing that the programmed solution is the preferred way to solve the problem.

It works, and has a many adherents.

In CSE120

We are not in the software development business. Rather we are in the learning business, and pair programming gives us a chance to discuss programming with a classmate. This is very useful in terms of improved understanding.

For example, in Exercise 13, the Feb. 21th lab programming assignment, we meet for the first time two unfamiliar programming tasks:

- Writing a function, `convert ()`, to translate from 2-D picture coordinates, to 1-D references to the `pixels[]` array.
- Writing nested loops, that is, loops within loops.

Both topics are discussed and used in Exercise 13. In addition to writing the code, both programmers should be sure they understand the logic of both ideas. If not, then discuss it with your partner.

Assignment 14 Ground Rules

For Assignment 14, all work must be done together. Expect to spend at least 10 hours on it. You first design it using a pencil and paper, then you get it approved by someone on the teaching staff. Then you begin programming. When finished, both programmers turn in the same assignment. There is a “reflection” survey afterwards in which you will discuss the experience (and comment on how your partner participated).