
CSE 142

Pair Programming

1/10/2003

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Outline for Today

- **Pair Programming**
 - What it is
 - Why we're doing it
 - Expectations
- **Demonstration**

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Programming Can Be Frustrating...



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Pair Programming

- **Observation: two people are more effective than one**
- **Idea: work with a partner on the programming projects**
 - Program together, don't split up the work
- **Sit at one computer together to program**
- **Roles**
 - Driver – person with the keyboard
 - Navigator – partner who is watching what is going on, contributes ideas, looks things up, catches bugs, critiques
- **Switch roles often**
 - At least every 15 minutes

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Successful Pair Programming



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Of Course, You Have To Do It Right



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Effective Pair Programming

- **Mutual respect**
 - Both partners have something to contribute, even if backgrounds are different
 - Never “you goofed” or “I goofed” – always “we goofed” (but more often, “we got it right”)
- **Share everything**
 - You and your partner should produce a single piece of work
(Of course, it makes sense for you to think about the project and sketch out ideas or sample code when you’re by yourself, but everything in the final code should be produced together – even if it’s just retyping something one of you wrote!)
- **Play fair – switch off regularly**
 - No “professional drivers”

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Driver/Navigator

- **Driver is the one with the keyboard, who actually types the code**
- **Navigator is watching over the driver’s shoulder**
 - Stay engaged
 - Contribute ideas
 - Look things up – books, documentation, ...
 - Catch typos/bugs
But do it politely
- **Together have a shared responsibility for the success of the project**
- **And remember, switch roles frequently**

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Expectations

- **Better overall quality**
 - Navigator helps driver catch bugs before they become part of the code
- **Faster time to finish**
 - Better focus when working together
 - Can be intense, take breaks as needed
- **Someone to talk to – less likely to get stuck**
- **Collective teaching and learning**
 - Both partners will learn things from each other
- **Less frustration**
- **More confidence and satisfaction developing software**

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