A Case Study of The CLforJava Development Process

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What is CLforJava?

• ANSI Common Lisp v. 2 compiler/interpreter written entirely in Java and Common Lisp
• Unique in that is developed as a multi-year student project
• Developed by successive groups of CSCI 462 students
• Intended to give students the experience of working on an “industrial-strength product”
Study Methodology

- Interviewed several students who worked on the project.
- Interviewed the project instructor and chief architect.
- Used my own personal experience of two semesters on the project.
Overall Development Model

● Overall, a spiral development model is used.
● The project is broken into chunks – tasks that can be accomplished in one semester by undergraduate students.
● Each semester is one turn of the spiral: design, build, integrate, test.
● Students present their work at the end of the semester.
Pedagogy

- Other than the spiral, no development models or techniques are taught.
- Instead, “foundational actions” are taught.
- Actions directly related to development, such as architecture, coding, and documentation.
- Actions indirectly related to development, such as version control, status reporting, and defect tracking.
- This makes students more capable of adapting to specific tools to accomplish these actions.
Conclusions

• The project seems well on the way to implementing its technical goals.
• Largely successful in its pedagogical goals.
• Most of the students I interviewed said that the project had given them experience directly applicable to real-world projects.
Why Java?

· Questions were raised about the appropriateness of Java as implementation language.
· At the time of the project's inception there was no other language suitable for implementation.
· Java has a virtual machine, garbage collection, and, most importantly, an established user base at the College of Charleston