

To Comment or Not to Comment Comments are easier to write poorly than well, and commenting can be more damaging than helpful. "Comments are an academic panacea, but everyone who's done any real programming knows that comments make the code harder to read, not easier. English is less precise than Java or Visual Basic and makes for a lot of excess verbiage. Programming-language statements are short and to the point. If you can't make the code clear, how can you make the comments clear? Plus, comments get out of date as the code changes. If you believe an out-of-date comment, you're sunk."

The Characters: THRASYMACHUS A green, theoretical purist who believes everything he reads CALLICLES A battle-hardened veteran from the old school—a "real" programmer GLAUCON A young, confident, hot-shot computer jock ISMENE A senior programmer tired of big promises, just looking for a few practices that work SOCRATES The wise old programmer

782 Chapter 32: Self-Documenting Code Setting: END OF THE TEAM'S DAILY STANDUP MEETING "Does anyone have any other issues before we get back to work?" The heated discussions over the virtues of commenting often sound like philosophical debates over moral virtues, which makes me think that if Socrates had been a computer programmer, he and his students might have had the following discussion. "I know that commenting can be abused, but good comments are worth their weight in gold. I've had to maintain code that had comments and code that didn't, and I'd rather maintain code with comments. I don't think we should have a standard that says use one comment for every x lines of code, but we should encourage everyone to comment." "I scan the comments to find the section that does what I need to change or fix. You're right that comments that repeat the code don't help at all"

KEY POINT 32.3 To Comment or Not to Comment 783 because the code says everything already. When I read comments, I want it to be like reading headings in a book or a table of contents. Comments help me find the right section, and then I start reading the code. It's a lot faster to read one sentence in English than it is to parse 20 lines of code in a programming language. "If they don't do it on their own, at least their manager will have the ammo to make them do it. "I'm not accusing you of being lazy or afraid that people will figure out your code, Callicles. I've worked on your code and you're one of the best programmers in the company. But have a heart, huh? Your code would be easier for me to work on if you used comments." "Comments are useless because they just repeat the code in a more verbose—" "Wait right there," Thrasymachus interrupted. Socrates asked