



# Is Stallman Stalled?

One of the Greatest Programmers Alive

Future Where All Software Was Free. Then Reality Set In.

by Simson L. Garfinkel

**A**fter nine years, people still don't get it. "The word 'Free' doesn't refer to price; it refers to freedom," said Richard Stallman, president of the Free Software Foundation.

Most software these days is sold in shrink-wrapped cardboard boxes, often for hundreds of dollars. For that, you get a floppy disk containing a program that the computer can execute, but which can't be modified.

Companies keep their source-code - the actual language in which programmers write - a closely guarded secret.

Stallman's vision of freedom is software that has no secrets. It comes complete with source-code so that anyone who gets it can take it apart, see how it works, and make changes. But most important, people can share free software with their friends - just by making a copy - without having to pay royalties, shareware fees, or anything at all.

In the shrink-wrapped world, that's called piracy. In Stallman's world, it's

called being a good neighbor. "I don't think that people should ever make promises not to share with their neighbor," he said.

Stallman was always a champion of free software. Throughout the 1970s, he was one of the most prolific members of the MIT Artificial Intelligence Laboratory, and one of many exuberant hackers who thought that powerful computers, free software and free information would change society. Then in 1982 he saw the Lab's premier operating system licensed to a computer company and turned into a proprietary tool for making money.

Stallman fought back. He quit his job and started Project GNU. The goal: create a free operating system that people could use and improve and, in so doing, establish a worldwide community of people sharing software. Stallman chose to model his effort on AT&T's proprietary Unix operating system, which was begin-

ning to take the computer world by storm. Hence the project's tail-chasing name: GNU's Not Unix.

Working day and night for two years, Stallman created EMACS, an extensible text editor for Unix. That same year, Stallman incorporated the Free Software Foundation, the world's only charitable non-profit organization with the mission of developing free software.

Because FSF sold EMACS in source-code form, people around the world started making additions to the program and porting it to different manufacturer's computers. Today, EMACS is a mammoth system that helps a person do everything from read electronic mail to develop software. Because of its popularity, many computer companies, including IBM, Digital Equipment Corp., and Hewlett Packard include it as standard software with their Unix operating systems.

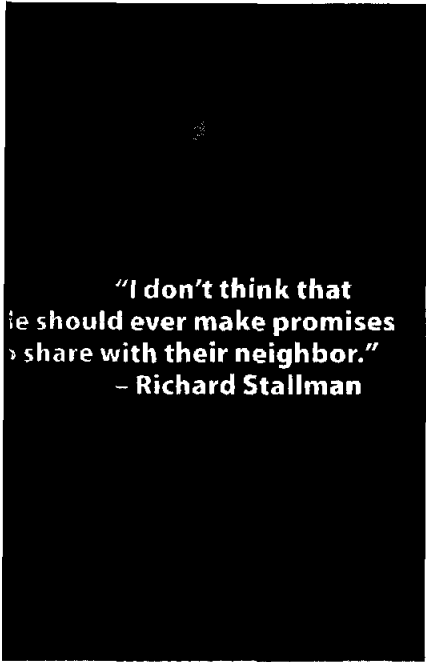
Since then, the GNU project has finished dozens of other programs. Half the work has been done by volunteers who have written programming tools, a free implementation of the PostScript language, and a C++ code compiler, among others. The foundation has attracted more than \$350,000 in grants from private companies, money that allows Stallman to hire a staff of programmers and technical writers.

FSF also makes money by selling manuals for its programs and computer tapes containing "free" software. Selling free software is not a contradiction, Stallman insists: People who buy the tapes are free to make copies of them and give them to friends, sell them at a profit, or sell support for the software.

One company that has done just that is the Palo Alto-based Cygnus Support, which has prospered selling support for GNU software to major corporations. In the last year, Cygnus has grown to 32 employees, moved to new offices in Mountain View, Calif., and opened a branch office in Cambridge, Mass.

**B**ut lately, things seem to have bogged down for Project GNU. Stallman learned long ago not to make promises about delivery dates. This winter, FSF will release EMACS version 19 - nearly three years later than originally planned. And the basic GNU operating system has been delayed for two years by Stallman's decision to base it upon the Mach microkernel developed at Carnegie Mellon University (university lawyers have spent most of those two years working out terms for the software license, said Len Tower, a member of the FSF board of directors).

Although the original Unix operating system was written in less than a year by [continued on page 108]



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# Stallman

[continued from page 34] two programmers at AT&T's Bell Laboratories, the system that Stallman is trying to clone has been evolving for more than 20 years. "He's trying to build a complete system. That is just a tremendous undertaking," said Keith Bostic, the No. 2 person at the University of California at Berkeley's Computer Systems Research Group, which oversees Berkeley's own brand of Unix.

In the meantime, two competing Unix clones have appeared on the market. But both of those systems are limited to personal computers using Intel's 80386 chip, while the GNU operating system is designed to be portable.

Ironically, the problem now is money - the very thing that Stallman is trying to avoid. Predictably, it's hard to sell tapes to people when they can easily acquire the software free. In better economic times, customers were willing to pay the FSF for a tape as a sort of charitable contribution; but recently those good Samaritans have disappeared. And FSF's grants, which once accounted for half of the foundation's income, have dried up. "There's a recession on," said Lisa Goldstein, the foundation's business director. Last year the FSF was forced to lay off three of its 15 full-time employees.

Things have gone much better for the fast-growing Cygnus. "The real difference is that we are running a company," said Cygnus president Michael Tiemann. One reason, Tiemann said, is that Cygnus "is willing to hire managers, sales people, marketing people, administrative support, and pay all of these people very well for doing a good job. My view of the FSF is that [Stallman] does not believe in managers because he views them as overhead - leeches on his operation."

Stallman counters that while Cygnus has made significant contributions to GNU, the company exists not to further the cause of free software, but to make money by serving the needs of its clients. "Serving them is not a bad thing, but it is tangential to the goal of the GNU project," Stallman said. "FSF spends its money specifically on advancing GNU."

The point, according to Hal Abelson, a professor at MIT and a FSF board member, is to finish GNU, not to make money. "FSF never had any purpose other than to make the GNU operating system," he said. "As far as I am concerned, if it makes this GNU OS and then closes down, it will have been a complete success." ■ ■ ■