

The Monthly GNU Column

Brave GNU World



Welcome to another issue of the Brave GNU World. The focus this month is Java; we will look at the subject of freedom and, more specifically, at the efforts to establish a free Java infrastructure.

Freedom in Chains?

To judge from the number of email messages I received from irate readers in response to my discussion of the Mindmapping Software Freemind, I seem to have trodden on a few people's toes. The reason for the flames was a statement that Freemind, like many other programs, is thoughtlessly based on a non-free Java implementation, which endangers the freedom of the software.

Many of the responses said something like, "Java is not free, but it's not entirely non-free." Of course, freedom comes in lots of different flavors, but the Java implementations by Sun and IBM are unquestionably non-free based on the accepted definition of free software.

The existence of free libraries for these implementations and environments does not change the situation in the least. Being able to wiggle your fingers is not going to break the chains around your feet.

As is so often the case, Richard Stallman explains this really well in his article "Free But Shackled - The Java Trap" [5]. According to Stallman, the "Java Trap" always snaps shut when you start thinking that proprietary implementations are "free enough" or "no problem."

In the Java Trap

Many distributors are in the process of tackling this issue right now, and some manufacturers are even considering removing free Java implementations from their CDs, as much of the software will

This column explores the world of free software

from the perspective of the GNU Project and the FSF.

In this issue, we focus on: The Java Trap, GNU Classpath, development in Java, and news from the FSFE. **BY GEORG C.F. GREVE**

only work with non-free implementations.

Also, as the Debian project discovered, there are legal issues [6]: Sun's Java JRE license does not allow the environment to be distributed with alternatives – in other words, it actively restricts the propagation of free Java. As a consequence, any software that needs the Sun JRE effectively blocks the development of alternatives.

Escaping the Java Trap

To escape from the Java Trap, programmers need to base their development work on free Java implementations. Developers need to be more cautious as to how they use the Java language.

The only permanent solution would be for Sun either to extend the free Java implementation to match generally accepted standards, or to change their licensing policy. Unfortunately, Sun recently refused to do this. Sun's actions

have placed even more emphasis on free Java implementations.

GNU Classpath

GNU Classpath [7] was launched in 1998, a GNU project to promote the development of free Java core libraries for use with virtual machines and compilers. The project was launched by Geoff Berry, Jim Blair, Brian Jones, Paul Fisher, Aaron Renn, and John Keiser with development focusing on Japhar, although the intention was clear from the outset that GNU Classpath should be available for other runtime environments.

In 2000, GNU Classpath joined forces with the Libgcj project, which had been working on the GNU Java Compiler class library from the GNU Compiler Collection. This merger doubled the number of active developers.

A steadily increasing number of runtime environments started using GNU Classpath in 2001 and 2002 – mostly in research but also in production.

More than 20 environments now support GNU Classpath – from the Kaffe JVM (shown with Eclipse in Figure 1) to IKVM.Net, a Java and .NET interoperability toolkit from the Mono project.

GNU Classpath is released under the General Public License (GPL), however, there is a proviso to ensure that the license does not cover Java programs that use GNU Classpath. This proviso

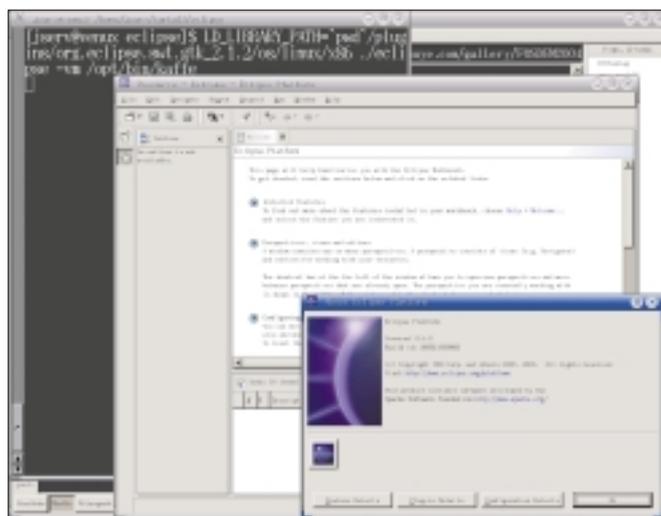


Figure 1: Eclipse running with the Kaffe JVM.

