

# Zack's Kernel News

## ■ Requested uptake

Folks who were overjoyed to find configuration information appended to compiled 2.6 kernels will be thrilled with Randy Dunlap's new addition. He got the idea to include the kernel version number and the date of compilation along with the configuration data. It appeared months after the initial decision to include configuration data in the kernel.

Often, ideas pile upon ideas, so that as soon as a feature is accepted, other developers start thinking about what they want it to do, and the number of patches increases. It's possible that the slow development of the configuration storage feature is the result of the controversy that preceded its adoption.

The first users to suggest it were flamed into silence, on the grounds that users should manage their own .config files and not bloat the kernel with unnecessary conveniences. Nevertheless, the idea stuck, cropping up every few months, and causing many seasoned kernel folks to give the standard explana-

tion over and over again: it would be unnecessary bloat. Eventually, Randy produced an 'ikconfig' implementation satisfactory to Alan Cox and some distribution vendors.

Soon several vendors were shipping with the patch included, and a version had been submitted for consideration in the 2.5 tree. Finally seven months later, in August, during the 2.6.0-test series, Linus finally accepted the patch, probably due to the vendor adoption. It was one case where the objectively 'pure' decision to avoid a feature that could be accomplished in user-space, clashed strongly with the desires of many users.

Marcelo Tosatti refused to include the patch in the official 2.4 kernel, as part of his campaign to reduce the patch intake in preparation for a new primary kernel tree, the 2.6 series. Marcelo's firmness caused many anguished cries, and he did relent on certain key patches, but not ikconfig. As a mere convenience, it did not merit bending his policy. ■

## ■ GFS moves back

The Global Filesystem (GFS) project has had a rough life. Initially developed by Sistina as a GPLed project to produce a globally distributable filesystem, it appeared to be on the fast track for inclusion in the official Linux kernel.

Then, Sistina decided in 2001 to re-release the code under a newly created 'Sistina Public License'. This license allowed continued access to the source code, but required a license fee to be paid in the event of any source code redistribution. This went against some of the fundamental ideas behind open source software, and there was a huge backlash among developers.

Alan Cox claimed that Sistina had violated the license under which his own contributions had been submitted. Various other developers who'd contributed to the project, banded together to form the OpenGFS project, based on the most recent GPLed version of Sistina's code.

While OpenGFS continued its development, Sistina made attempts to capitalize on the community's earlier efforts.

Apparently none of these panned out and in 2004 their source tree was bought by Red Hat, who restored the code base to its original GPLed status.

Whether the OpenGFS project will begin to merge with the re-freed code-base is unknown, but such a reunification would not be out of character for free software development.

The early stages of development are characterized by some employees pushing an open source solution; which starts to look like a wasted gold-mine to the business folks struggling to keep their company afloat. Copyright law gives anyone the right to release their own existing work under different licenses, so not much can be done to prevent this; but at least we can welcome GFS back into the land of free software. ■

## INFO

*The Kernel Mailing List comprises the core of Linux development activities. Traffic volumes are immense and keeping up to date with the entire scope of development is a virtually impossible task for one person. One of the few brave souls that take on this impossible task is Zack Brown.*

*Our regular monthly column keeps you up to date on the latest discussions and decisions, selected and summarized by Zack. Zack has been publishing a weekly digest, the Kernel Traffic Mailing List for several years now, reading just the digest is a time consuming task.*

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## ■ Quilting tool

User-Mode Linux (UML), after making heavy inroads into the official Linux kernel, has now found itself once again in a corner. The patch has grown to such a size that it would be difficult to have it accepted without a massive amount of additional work.

The standard policy, initiated by Linus Torvalds and carried forward by Alan Cox, Andrew Morton, Marcelo Tosatti and others, has been that patches should be in small, single-purpose chunks, fixing one bug or adding one feature.

Unfortunately, this is not a skill that is easy to master and the available tools do little to clear the ground. As a result, Jeff came to the conclusion that whatever system of patch management he had been using, had to be revamped.

The tool to do this is called quilt. A dangerous tool for the inexperienced, quilt has been tailor-made to Andrew's and others' development needs: maintaining a set of discrete patches against someone else's source tree.

While Andrew has said that he is willing to include Jeff's work in his -mm patches, which typically get a lot of usage among developers, and are only a short hop from the official sources; this will only tend to give prominence to the issue, generate needed bug reports and help keep that patch current against the main tree until Jeff can perform the necessary patch extractions. ■

