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Welcome to the new Millennium. Looking back at 1999 it is really breath taking what Linux has achieved. Linux Weekly News has published a 1999 time line. 1999 was the year of the 2.2 Kernel, Gnome, a very stable KDE and of course the public offerings of RedHat, Cobalt Networks, VA Linux and a few other Linux related companies.
The Gnome and KDE have very much changed the perception that Linux is only a Server platform and the public offerings have brought a lot of attention to Linux. 2 years ago it was often necessary to explain first what Linux is. Now suddenly everyone seems have heard about Linux.
The Linux market is growing exponentially and I am quite sure that this year will be even more exciting than previous years.

Despite the excitement we need to be alert. A patent lasts 20 years and that is a very long time in the software world. Especially in the software world more and more patents get filed for rather simple things. Originally patents were made to protect investment in years of research and development. Today software patents are mostly filed for obvious ideas and sometimes even techniques that are already in use. These patents can block innovation and wide spread use for a long time. Software patents are especially a problem for developers of free software as a patent basically makes it impossible to implement that idea as free software. Richard Stallman has called for a boycott against Amazon.com. Amazon, it seems, is trying to use its patent for "one click ordering" against competitor Barnes & Noble. The great innovative step of Amazon's patent is to store private data in a web-browser cookie. A technique for which cookies were made after all.

System Administration

- How to partition your hard drive for Linux , by Thomas Mangin
  Thomas explains how he has chosen to partition his hard disk.
- Home Networking, glossary and overview , by Guido Socher
  This shall be the first article in a series about IP networks.
- Recycling Ip Addresses with Apache , by Atif Ghaffar
  This article demonstrates how to serve multiple virtual web servers using the same Ip address with Apache on Unix/Linux.
- VXE, a Linux security tool , by Serge Lozovsky
  Serge Lozovsky presents a software package that he developed to make UNIX systems more secure.

Applications

- FSViewer, a File Manager for WindowMaker , by Georges Tarbouriech
  Among the revolutionary tools of NeXTStep, the first in order of appearance on the screen was indisputably the File Viewer. Thanks to the path-view in that File Manager you always knew where you were. It was more than a manager, it was a true browser. FSViewer is a NeXTStep a like File Manager for WindowMaker.

- WindowMaker the spirit of NextStep , by Georges Tarbouriech
  Window Maker 0.61.1 is the latest release of a NeXT look-alike window manager.

Software Development

- Perl part III , by Guido Socher
  This article explains how to use arrays in Perl.

The LinuxFocus Tip

The Linux EXT2 file system usually gets a forced file system check after 20 mount counts. On todays big partitions such a file system check can take several minutes. Home and desktop computers are switched on and off more often than server machines. As a regular computer user you may therefore see the message `... has reached maximum mount count, check forced` several times a week.

A file system check once in a while is a good idea but once every week or two may be too much for you. Here is how you can increase the max mount count for your partitions.

1. First rule: Never use tune2fs on a mounted file system. Get a rescue software for Linux such as the tomsrtbt from www.toms.net/rb/. Tomsrtbt is a Linux system on just one floppy. You can boot from it and then use the tune2fs as described below.
   You may also download the tomsrtbt-1.6.362.tar.gz or tomsrtbt-1.7.185.tar.gz directly from here. Unpack the file. Installation instructions are included.
2. Once you have booted from the rescue disk you can run the command
   `fdisk -l`
   to see all your partitions.
3. Run the command
   `dumpe2fs /dev/YourDev | grep Max`
   to see what the current max mount count on a given partition is. Replace the YourDev by the appropriate device (e.g hda5).
4. To change the maximum mount count to a higher value (e.g 50) use
   `tune2fs -c 50 /dev/YourDev`
5. Run the above tune2fs command for all your hard disk partitions which are marked as "Linux native". You can also change the mount count value a bit for every partition (e.g 50, 60, 70...). That way not all partitions get a forced check at once.

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