

Fuel up your system!

# Adding Software

Today the initial installation of Linux can be done with just three clicks on “OK”, the graphical user-interface looks nice and is intuitive, and the number of supported devices is steadily increasing. However, there is one thing that can still be a problem: installing additional software. **BY HANS-GEORG EBER**

Ideally, adding software onto a Linux computer after the initial installation is pretty simple: you start the package management tool that comes with your respective distribution, select the desired programs and click on *OK* – the tool handles the rest automatically. Well, at least that is the theory.

For Suse and Debian Linux we are going to talk about two popular tools: YaST, well-known to all Suse users; starting on page 20, we show how to use the text-mode variant – and thus handle more than just installing programs. With Aptitude, Debian users have an interface for the package administration tool APT: this program runs in text mode, as well, so that you can also use it for remote maintenance, among other things. The Aptitude tutorial article starts on page 24.

## COVER STORY

### YaST .....20

The Suse installation and configuration tool, YaST, has developed into a powerful utility over the years. We explore some of the features of the powerful text version.

### Aptitude .....24

In its current version, Debian includes about 9,000 packages. The next version will include around 14,000. Aptitude provides a clearer view, and takes the pain out of finding software.

### Configure .....28

Configure script errors are critical when it comes to trying to install software. Find your way around the warnings and solve the problems.

### Make .....33

After successfully negotiating the configure script, users only need to negotiate the make and make install steps to build a new application. Although this may sound simple, the details can be tricky.

## Three-Step

Many programs are not available in either RPM or Debian package format. This applies especially to the brand new versions of the latest software. If you follow the new release of Linux software on <http://www.freshmeat.net/>, you will find ready-to-use packages only in rare cases. Instead, they are source code in either *tar.gz* or *tar.bz2* format.

In order to be able to do anything with these you need the development packages, such as the c-compiler *gcc*, the *make* tool and a list of libraries, with all of the header files that go with them.

The classic Linux three-step consists of three commands:

```
./configure
make
make install
```

where, at the very least, root privileges are needed for the last command. One of the first two steps nevertheless often stops with puzzling error messages.

Therefore, we are going to look at these two steps through a magnifying glass: The article starting on page 28 describes the *configure* step in detail and helps you to fix errors you might encounter. After running *configure* successfully, the rest should run pretty much problem-free, simply because it is the job of *configure* to look for all of

the files needed for the transformation. Nevertheless, sometimes there are difficulties, which our second article eliminates starting on page 33. ■

