SheevaPlug Dev Kit

Graham Morrison looks at a complete Linux machine housed in what appears to be a PSU...

In brief...

»Complete Linux machine that's no larger than a box used to hold a single teacup. Other options include the Lintop or the Bubba Home Server.

The name 'SheevaPlug' presumably comes from the fact that this small white box is little bigger than the average PSU, and with the correct connector, it will attach directly to a power socket. But instead of transforming voltages, this box contains a complete Linux machine with 512MB flash storage, 512MB RAM and a 1.2GHz ARM CPU. There's standard USB port, a hosting USB port, an SD memory card slot and an RJ45 Ethernet connector, and the whole box comes with the latest ARM build of Ubuntu pre-installed.

It's called a Development Kit because it was envisaged that embedded developers could use these devices to build their products, after which black-box appliances could be deployed based around the same hardware. This is certainly true, but it precludes many ordinary users from

> **"The best thing about this is that it uses the ARM port of Ubuntu."**

doing more ordinary things. Compared with the average NAS box, for example, the SheevaPlug is more powerful and would make an ideal replacement if you just added external storage. The total package would still be cheaper than many NAS boxes. But the SheevaPlug is

❯ Connect the SheevaPlug to an Ethernet cable and you're ready to go.

equally well suited as a media player, using the USB port to pump music to a USB-compatible set of speakers, as the hub for a home automation system or even as a network time server with a suitable USB GPS unit.

Nice 'n' simple

To get the SheevaPlug up and running you need to connect another Linux machine to the USB port, load the FTDI module and then use a terminal emulator to connect to the USB serial port. You can then log on to the SheevaPlug and access the command line. This is the JTAG and console interface to the device. With the basic model, you need to type a few commands to fix a permission problem, edit the DNS configuration and update the distribution packages before you can start messing around, but this doesn't take more than 10 minutes. After which you have a blank canvas and you can connect over SSH.

The best thing about this device is that it uses the new ARM port of Ubuntu. The result is that you can install almost anything using **apt-get install**. A quick command-line count showed us 25,292 possible packages, which is huge compared with the typical NAS box.

To put the machine to the test, we grabbed several big applications, including *Apache*, *MySQL*, PHP 5 and finally *WordPress*, and installation was a breeze. We followed the standard Ubuntu guidelines to get things working, and we were very impressed

by the small box's performance, even if it wouldn't survive a Slashdotting.
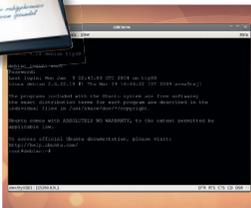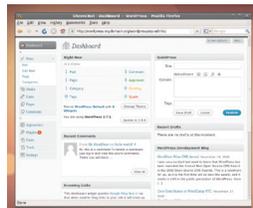
We also installed the generic ARM package of Logitech's *Squeezebox* music streaming server. We found it was pretty quick, outperforming both the Synology and the QNAP devices we looked at recently, making the SheevaPlug an ideal hub for your music, and *MediaTomb* performed just as well.

Its tiny form-factor, low power drain and low price make this an ideal platform for experimentation. It also makes a perfect replacement for the now discontinued Linksys NSLU2, for example. There's extensive online support for expanding storage and booting off USB and flash devices, as well as many other projects. There are no concessions for usability, but if you already have some idea of what you'd like to do with a SheevaPlug, you're not going to need any more convincing. **LXF**

Features at a glance

Debug Console
No matter what state your machine is in, you can always use a terminal emulator to connect to the console.

Ubuntu
You can install thousands of packages without having to worry about the CPU or dependencies.

LINUX FORMAT **Verdict**

SheevaPlug

Developer: NewIT Ltd
Web: http://newit.co.uk
Price: £89

Features	8/10
Performance	8/10
Ease of use	6/10
Value for money	9/10

» *Cheap, stable, configurable and powerful. Just like Linux.*

Rating 9/10