Techniques for scripting in Linux

Put it in a Script

Not every expert computer user is a programmer, but if you want to be an expert, you'd better know something about scripting -- especially if you're working in Linux. **BY JOE CASAD**

L inux is a godchild of Unix, and Unix has always ascribed to the philosophy of using simple tools in interesting ways. A script is a way of automating commands, but, as you will see in this issue of Linux Magazine, a script is also a means of connecting tools. Every command is a tiny tool, of course, but some tools are especially useful for scripters. Some tools, in fact, are whole languages that fit comfortably within other languages so that you can build better and more efficient scripts. In this issue you'll see examples of *grep* and AWK, for instance. You'll also get some tips on scripting with Bash, and you'll learn about advanced scripting techniques for conditional statements and command substitution.

Because all tasks, and all Linux users, are not the same, a variety of scripting languages are available, and we touch on some of the most important languages in this issue.

We start out with an odyssey into scripting with Bash (the Bourne Again Shell). Bash, the default shell on many Linux systems, will be very familiar to

many readers. But we wanted to go beyond what most users see. In our lead-off article, "Gaining Control: Building a Bash Web Admin Script," by Peer Heinlein, we show you a script for administering a web server in a real-life production environment. And as you will see, the best part of the article isn't the commands but the techniques -- the tricks for getting to an efficient solution through advanced knowledge of scripting tools and the web service infrastructure.

Next in the set is an article on the classic Unix scripting language AWK. The article "Regular Wizardry: AWK with a Text-file Table," by Nico Hochgeschwender, shows AWK in action. AWK has been around so long that almost everyone has heard of it, but, with the variety of newer and more versatile languages available, one does not always think of AWK as a tool of choice for very practical problems on the modern network. In this case, we'll show you a practical case study that demonstrates how a system administrator could use AWK to search a text-file table that contains configuration information on network computers.

Rounding out our set of scripting themes is an advanced look at Perl 6

from Linux Magazine,'s regular Perl columnist Mike Schilli. If you loved Perl 5, you might like Perl 6 even more. We'll give you a look at what's ahead in the the world of Perl.

And if you're looking for another article in this month's issue that may be interesting reading for scripting specialists, try Heike Jurzik's piece on the ImageMagick toolset. The ImageMagick tools, which let you manipulate graphic images through text-based commands, could lead to imteresting possibilities if you like to experiment and you're in the mood for some scripting. ∎