

when you boot up your machine. You can use this file to specify the virtual console that *pppstatus* will output to. Most Linux systems have many virtual screens that can be accessed by pressing [Alt-F1] through [Alt-F12]. Any virtual console above F7 would be suitable for this purpose, as they are rarely used. You can change the *TTY* variable in the *TTY=12* line to any number between 7 and 11. 12, the last virtual console on most machines, is the default.

The Debian start script checks whether the */etc/pppstatus/pppstatus_on_boot* file exists. If not, *pppstatus* will not launch, as you might have suspected. The best thing to do is to create the file – either by renaming the file created by the Debian installation, */etc/pppstatus/no_pppstatus_on_boot*, or by running the following command

```
touch /etc/pppstatus/
pppstatus_on_boot
```

to create a new empty file. Having completed this step, you can use the following command

```
/etc/init.d/pppstatus start
```

to simulate an automatic startup on booting. If you do not see an error message, press [Alt-Fx] to the console you specified as the output target, and ensure that everything is running to your liking.

If you compiled *pppstatus* on Red Hat, Slackware, or Debian, change back to the *PPPStatus-v0.4.2* source directory and setup the autostart function using the *runonboot*:

Listing 2: Linking the Start-Stop Script

```
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc3.d/S75pppstatus
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc5.d/S75pppstatus
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc0.d/K20pppstatus
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc3.d/K20pppstatus
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc5.d/K20pppstatus
ln -s /etc/rc.d/init.d/pppstatus /etc/rc.d/rc6.d/K20pppstatus
```

GLOSSARY

Ncurses: A program library that allows simple graphic elements such as menus, to be displayed on the console.

Virtual console: Major Linux systems support multiple “monitors” where you can log on and run programs. Each of these “monitors”,

or virtual consoles, displays a single screen. A combination of [Alt] with a function key toggles between screens. To switch from a GUI desktop to a text-based console, additionally press the [Ctrl] key.

Listing 1: Color definitions in */etc/pppstatus/pppstatus.cfg*

```
ingoing = light green # incoming data
outgoing = yellow # outgoing data
intersection = green # intersection of incoming and outgoing data
background = black # background color
data = cyan # font color for data values
border = white # border color
labels = white # label color
version = light white # color of program version display
power_led_on = light green # status display with Internet
connection
power_led_off = red # status display without Internet connection
```

```
./runonboot -d rh -t 9
```

will tell Red Hat to place output from *pppstatus* on virtual console number 9.

To automatically call the script on boot up, using the *start* argument, you still need to create a few links; Listing 2 does this for Red Hat. If you have a newer SuSE distribution replace */etc/rc.d/init.d/* with */etc/init.d/*. If in doubt, the documentation for your distribution should tell you the directories you need.

Logging Online Costs

pppstatus' integrated charge checker is not particularly flashy, but it is flexible enough to collate additional dial-up costs for Internet-by-call users. The data are stored in */var/log/costs* (or in */etc/pppstatus/costs* if you have the Debian binary). You can specify different connection charge per minute separately for weekdays, Saturday and Sunday.

If the overview has launched, any *pppstatus* instances launched subsequently

will be monitored, provided the *pppstatus.cfg* line is set to

```
costs_file = costs
```

(you may need to remove the hash sign # at the start of the line).

This last step provides you with an overview of the total transfer volume in bytes, at the same time monitoring the Internet-by-Call charges to help you avoid that dreaded phone bill shocker. ■

Listing 3: Extract from *costs* file

```
# This file reflects Internet
connection charges per hour
monetary_sign = US$ #
Currency
pulse_charge_time = 1 # Unit is
one minute
pulse_on_connect = yes # Dial-up
charge 'yes' or 'no'
on_connect_cost = 0.079 # Dial-up
charge cost
# wd (Work Days) i.e. Monday
through Friday
# sat = Saturday, sun = Sunday
00:00 wd = 0.083
01:00 wd = 0.083
02:00 wd = 0.083
03:00 wd = 0.083
04:00 wd = 0.083
05:00 wd = 0.083
06:00 wd = 0.083
07:00 wd = 0.083
08:00 wd = 0.083
09:00 wd = 0.079
10:00 wd = 0.079
[...]
```