Using expect to automate mundane tasks

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I have a Power5 system I use for testing, no HMC and I cannot always depend on being at a location where I can use the web-based ASMI interface. Plus, I have to wait for the web-interface to load. I prefer to use the serial line connection from tty1 to the serial port of the Power5. But typing in the commands got boring too. Enter **expect**, a program that can be told what to expect and then send an automated reply.

My program to automatically start a Power5 system

```
#!/usr/bin/expect -f
send_user "$argv0 performs 'cu -1 tty[lrange $argv 0 0]n"
spawn cu -1 tty[lrange $argv 0 0]
expect {
    " DEVICE LOCKED" { puts "********lockedn"; close; exit }
    "onnected" {
    puts "login to Hypervisorn";
    send n;
}
    "ogin: " {
    puts "**** already activen exitingn"; close; exit;
}
}
expect "User ID: " { send adminn }
expect "assword: " { send PASSWORD*n }
expect "80]: " { send n }
expect {
```

```
" 24]: " { send n }
" 25]: "
                 { send n }
expect "S1> " { send 1n; sleep 1 }
                 { send 1n; sleep 1 }
expect "S1> "
expect "S1> "
                  { send 8n; sleep 1 }
expect "PRESS ENTER TO CONTINUE:" { send n }
                  { send 99n; sleep 1 }
expect "S1> "
expect "out."
                  { send "~." }
expect "~."
                  { send "n" }
puts "nnPower On Successfuln"
```

ote: you will need to change the PASSWORD to your system admin password.

Below is an example of the output. - And I expect this would work with Power6 and Power7, although the prompts and command option numbers may be a bit different.

```
michael@x054:[/home/michael]pwrOn 1
/opt/bin/pwrOn performs 'cu -l tty1
spawn cu -l ttyl
Connected
login to Hypervisor
Welcome
Machine type-model: 9110-51A
Serial number: 0639B8D
Date: 2013-12-12
Time: 8:09:24
Service Processor: Primary
User ID: admin
Password: ******
Number of columns [80-255, Currently: 80]:
Number of lines [24-255, Currently: 24]:
System name: X100-p51A-054321D
Version: SF240 418
User: admin
Copyright © 2002-2012 IBM Corporation. All rights reserved.
```

- 1. Power/Restart Control
- 2. System Service Aids
- 3. System Information
- 4. System Configuration
- 5. Network Services
- 6. Performance Setup
- 7. On Demand Utilities
- 8. Concurrent Maintenance
- 9. Login Profile
- 99. Log out

S1> 1

Power/Restart Control

- 1. Power On/Off System
- 2. Auto Power Restart
- 3. Immediate Power Off
- 4. System Reboot
- 5. Wake On LAN
- 98. Return to previous menu
- 99. Log out

Power On/Off System

Current system power state: Off

Current firmware boot side: Temporary

Current system server firmware state: Not running

1. System boot speed

Currently: Fast

2. Firmware boot side for the next boot

Currently: Temporary

3. System operating mode

Currently: Normal

4. AIX/Linux partition mode boot

Currently: Continue to operating system

5. Boot to system server firmware

Currently: Running

6. System power off policy

Currently: Power off

7. i5/OS partition mode boot

Currently: A

8. Power on

98. Return to previous menu

99. Log out

S1> 8

The system is powering on.

PRESS ENTER TO CONTINUE:

Power On/Off System

Current system power state: Off

Current firmware boot side: Temporary

Current system server firmware state: Unknown

1. System boot speed

Currently: Fast

2. Firmware boot side for the next boot

Currently: Temporary

3. System operating mode

Currently: Normal

4. AIX/Linux partition mode boot

Currently: Continue to operating system

5. Boot to system server firmware

Currently: Running

6. System power off policy

Currently: Power off

7. i5/OS partition mode boot

Currently: A

8. Power on

98. Return to previous menu

99. Log out

S1> 99

You have logged out.

 $[x054] \sim .$

Power On Successful

michael@x054:[/home/michael]

Script command is complete on Thu Dec 12 08:14:07 CUT 2013.

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