

Title: Password Protecting Single User Mode

Entry Number: 2593

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Overview

The ability to boot a UNIX system in single-user mode is a security concern, since single-user mode provides a root shell without requiring a password. This example allows you to force the user to supply a password before `/bin/sh` starts in single user mode. It does this by running a password checking program in the shell's startup file for root, `/.profile`.

Disclaimer

This system has been tested for security holes, and appears to resist concerted efforts to defeat it. However, NeXT Computer Inc. disclaims any warranty of any kind, expressed or implied, as to its fitness for any particular use.

Required Files

The files needed for this example are available in compressed form as NeXTanswer # 2592. This archive includes:

- + The pwcheck.c source code
- + The makefile
- + A sample /.profile file that runs the compiled example
- + An RTF copy of this instruction file

Using Password Protection

To password protect single-user mode on your system, simply log in to a Unix shell as root, cd to the uncompressed directory containing the Makefile and source code and type

"make." The pwcheck Makefile will automatically install the pw_check program and /.profile, place your local NetInfo domain's root password in your local /etc/password file, and protect your /etc/rc.boot file so that the startup sequence cannot be interrupted from the keyboard. Backup copies of your original files are created as /etc/passwd.orig, /etc/rc.boot.orig, and /.profile.orig.

The program prompts the user three to enter a password. The default .profile included with this package will prompt for the root password, but you may specify another user's password in the command line. If the correct password is not entered in three attempts, the program halts the processor.