

## Tech Info Library

## A/UX: How Users Can Shut Down Without Root Access (9/94)

A system administrator at an A/UX site wants to give users the ability to power off their machines, but without giving them root access. Is the following procedure a suitable way to power down the machine? Here is what he did:

- 1) He modified the /mac/bin/Login file with ResEdit, changed the string Guest to poweroff (STR# resource), and modified the dialogs accordingly.
- 2) He compiled the following C program and named the executable poweroff:

```
poweroff.c
#include <stdio.h>

main(argc, argv)
int argc;
char *argv[];

{
   setuid(0);
   argv[0] = "reboot";
   execl("/etc/reboot", "reboot", "-h", 0); /* -- run reboot */
   /* -- NOTREACHED */
}
```

3) Poweroff\* was put in the /root directory and given these permissions:

```
# ls -l /root/poweroff
-rwsr-xr-x 1 root root 2373 Aug 17 18:20 /root/poweroff
```

4) An account called "poweroff" was added to /etc/passwd that executes /root/poweroff when a user logs in under that name (or selects the power-off radio button in the Login screen). For example:

```
# grep poweroff /etc/passwd
poweroff::8:1000:user shutdown account:/root:/root/poweroff
```

The only possible problem with this is that a user could log on to another user's machine and shut it down. Giving the user a power-off password makes

this unsuitable for installations where there is limited network discipline.

```
DISCUSSION -----
```

Your C code seems to meet the customer's need: shutting down A/UX without being root.

This additional code can be included in the poweroff.c to prevent a remote user from shutting down the system:

```
char *ttyname();
  char *p;
  char *d="/dev/ttyC";
  p=ttyname(0);
  if (strncmp(p, d, 9) != 0) {
      fprintf(stderr, "%s: not a CommandShell type of window\n", argv[0]);
      exit(1);
  }
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