CSE 451 – Operating Systems Section, Winter 2003
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Computing Resources

Our "Special" Servers
coredump, spinlock

Island Servers
fiji, sumatra , ceylon, tahiti

Orange tagged boxes
VMWare

DO NOT USE!!!!

Use these instead

- Develop your code on *coredump,* and *spinlock.*
- Test your code on your VMWare install.
- If you use **fork** in your code, MAKE SURE YOUR CODE DOES NOT INFINITE LOOP!!! If you aren't sure, run it in vmware. **NEVER EVER** run it on the Island Server.
- Every quarter some idiot fork bombs one of the island servers. It will not happen this quarter, or else…

Vmware Basics 1

- Start VMWare
  Start | VMWare | VMWare Workstation

- Load the Linux VMWare Image
  File | Open c:\Program File \VMWare \vms\linux\linux

Vmware Basics 2

Power functions (on, off, reset)

Machine name

VMWare config

- **All disks are non-persistent.** (look in the configuration) That means using the power functions for off and reset undo any changes to the disk. **Do a soft reboot to preserve data!!!** *("shutdown –r now", or "reboot" from the shell instead of hitting the reset button)*

- **Network Adapter is Host Only.** This means that only the host computer can talk to the vmware network card. You have to transfer files (like your kernel) to the host machine first.

Accessing your Linux virtual machine

- The super user (administrator) account on all Unix boxes is called " *root* "

- The password to root on the vmware machines is "*rootpassword*"

- ftp is the recommended method used to transfer files to and from vmware; there is no ssh daemon installed. The vmware ip address should be 192.168.93.2.   To find the ip address type " *ifconfig* " (interface config) in the shell.

- You can use explorer to ftp to vmware through the url
  ftp://root:rootpassword@192.168.93.2

If you decide to use another ftp method, remember to check **binary** mode. Otherwise you'll get garbage instead of your file.

M337 C

What is C
- C is a procedural language
- This does not mean that you cannot write OO code. It just means that there is no native language support like classes. This is similar to Java having language features for synchronizing threads and C++ not. You can still do multithreaded code in C++ (and in C as you will soon find out first hand).

Major syntactic differences in C
- There are no classes. Structs are **NOT** the same classes as they are in C++.
- You can only declare variables at the top of a block (after an opening brace) before any other kind of statement (except perhaps typedefs).
- There is no new/delete operators. Only malloc and free functions.
- You use void*s a lot in C data structures.