

The UNIX File System



Harry Chen

Department of CSEE

University of MD Baltimore County

Introduction

- **What is File System?**
 - The abstraction used by kernel to represent and organize the storage resources.
- **UNIX File System in general**
 - File system is organized in tree structure.
 - File tree can be arbitrarily deep.
 - File name must **NOT LONGER** than 256 chars.
 - Single path name must **NOT LONGER** than 1023 chars.

Creating File System

- **Mounting File System**
 - File tree is composed of File System
 - Use *mount* command to map a directory within the existing file tree (mount point) to the root of the new file system.
 - *mount /dev/hda2 /usr*
 - Use *umount* command to detach the file system.
 - Detaching will fail if the file system is busy.