

CSGE602055 Operating Systems

CSF2600505 Sistem Operasi

Week 09

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Agenda

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- 2 Agenda
- 3 Week 09
- 4 File Systems
- 5 Mass Storage Systems
- 6 The End

Week 09: File dan Storage System

- Reference: (OSCE2e ch9/10/11) (UCB 17A/18/19) (UDA P4L2 P4L2) (OLD 07 08)
- File System Interface
- File Attribute
- File Operation
- Disk Structure and Organization
- File System Types
- Directory
- FS Mounting vs. Volume Based System
- FS Structure and Implementation
- File Control Block
- FS In Memory Structure
- VFS
- Directory Implementation

- File System Layers
 - Application Programs
 - Logical File Systems
 - File-Organization Module
 - Basic File Systems
 - I/O Control
 - Hardware Device
- Allocation Method
 - Contiguous
 - Linked
 - Indexed
 - Combined Scheme
- Cache
- STREAMS

Mass Storage Systems

- Mass Storage Structure
- Solid State Disk
- Storage Array
- SAN
- NAS
- Scheduling: FCFS, SSTF, SCAN, C-SCAN, C-LOOK.
- Disk Management
- RAID
- the `/dev/` directory
 - `/etc/fstab`
 - Device Major and Minor Numbers
 - UUID - Universally Unique IDentifier (128 bits)
 - practically is NOT guaranteed unique
 - FUSE: Filesystem in Userspace
- Lab
 - Visit <http://os162.vlsm.org/>

The End

- This is the end of the presentation.