

Filesystem Types

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Graded Assessments

Module 4 Glossary

New terms and their definitions: Course 3 Week 4

Command line mode: When you are able to run commands while still in your current shell

Date: Actual content of a file

Data buffer: A region of RAM that's used to temporarily store data while it's being moved around

Defragmentation: A process of taking all the files stored on a given disk and reorganizing them into neighboring locations

Disk Management utility: Native tool for Windows that helps with managing disk space

File record number: The index of the file entry in the MFT

File system: Used to keep track of files and file storage on a disk

Hard link: When created in NTFS, an entry is added to the MFT that points to the linked file record number, not the name of the file. This means the file name of the target can change and the hard link will still point to it

Inode: A file structure for metadata and files

Interactive mode: When the prompt tool launches you into a separate program

Master boot record (MBR): a traditional partition table within a storage disk that lets you have volume sizes of 2 terabytes or less and is mostly used in the Windows OS

Master file table (MFT): A way NTFS stores and represents the files you're working with on your operating system

Memory manager: A Windows OS program that helps manage virtual memory

Metadata: Tells us everything we need to know about a file, including who created it, when it was last modified, who has access to it, and what type of file it is

Mounting: Taking a file or hard disk accessible to the computer

Partition table: How the disk is partitioned on an OS

Shortcut: An entry in the MFT that has a reference to some destination, so that when you open it up, you get taken to that destination

Softlinks: A shortcut in Linux, that allows us to link to another file using a file name

Swap space: The allocated space where the virtual memory is stored on the hard drive when the amount of physical memory space is used up or full

Symbolic links: Work similarly to shortcuts, but at the file system level. The key difference is that the operating system treats them like substitutes for the file they're linked to, so almost every meaningful way

System properties: A control panel applet that allows you to edit the size and number and location of paging files

Trim: A command to delete unused data blocks so the space can be used for the computer's storage needs

UEFI: A new standard for BIOS

UUID: Universally Unique ID

Virtual memory: A combination of hard drive space and RAM that acts like memory which our processes can use

Volume: A format for a filesystem on a partition

Terms and their definitions from previous weeks

A

Absolute path: It is one that starts from the main directory

ACL: Access Control Lists

Administrator: A user that has complete control over a machine

Alias: A nickname for common commands

Appending flags: A way to add the data of the file without erasing existing data

App Store apper: A Package Manager that acts as a repository

App store repository: A app store service that also acts as a repository

App stores: A central managed marketplace for app developers to publish and sell mobile apps

APFS: An APFS is another way to package contents of a file to act like a unit of distribution

Archive: An archive is comprised of one or more files that are compressed into a single file for "on web agreement"

B

Bash: The language used to interact with the shell

Biometric data: A way of protecting your accounts and information using biometric data such as facial recognition and fingerprint

Block devices: A system that acts like USB drives and hard drive by transmitting data

C

Cache: The assigned stored location for recently or frequently accessed data, on a mobile app it is where anything that was changed or created with that app is stored

Character devices: A way to transmit data character by character like a keyboard and mouse

Chocolatey: A third-party package manager for Windows

CLS: Command line interpreter

Closed source packages: A source code that does not allow public access

Command line: A text interface program for a computer that inputs text commands and translates them to the operating system

Computer management: A tool that lets you manage a local or remote computer

D

DACL: Directory Control Lists

Debian(.deb): A Debian package is packaged as a .deb file

Device manager: A console management system for your device

Drivers: Used to help our hardware devices interact with our Operating System

Dynamic link libraries: Programs that want to use functionality that the code provides can tap into it if they need to (shared libraries)

E

Enterprise app management: A management system that allows an organization to distribute custom mobile apps

Escape characters: A concept that means that the next character after the back tick should be treated literally

Executable file: A file containing instructions for a computer to execute when they're run

.exe: A file extension found in Windows for an executable file

F

File permissions: A process for setting permissions for who has access to certain files

Full control: A user or group with full control that can do anything they want to files

G

Groups: A collection of users

GUI: A graphical user interface

H

Hardware ID: A special string of characters assigned to hardware

Having dependencies: A process of counting on other pieces of software to make an application work since one bit of code depends on another in order to work

Hidden files: A set of files that are not visible either to avoid alteration or simply because you don't want someone to see them

Hot key: A keyboard shortcut that does a particular task

I

Inherit only: A permission group that means that a DACL will be inherited, but not applied to a container

Installing from source: A process of installing from a source

I/O Streams: An input stream handles data flowing into and out of a program

K

Kernel module: It extends the kernel's functionality so developers don't have to actually touch the Linux kernel

L

Library: A way to package a bunch of useful code that someone else wrote

List folder contents: A command that will execute and list folder contents and is an alias for Read and Execute

M

Manifest: A library used if an application needs to use a shared library

Microsoft Install Package(.msi) and MSU files: Microsoft Install Package is a file extension used to guide a program called Windows Installer in the installation, maintenance, and removal of programs of the windows operating system, MSU files are a combination of databases that contain installation instructions in different tables along with all the files

Mobile applications: Software that is distributed on mobile OS devices

Mobile device management: A system used to apply and enforce rules about how the device has to be configured and used

Modify: An umbrella permission that includes read and execute and write

P

Packaged archives: The core or source software files that are compressed into one file

Package manager: An application that makes package installation and removal easier

Parameter: A value that is associated with a command

Parent directory & child directories: A parent directory is a directory that houses all subsequent child directories

Paths: A main directory that branches off and holds other directories and files

Personal package archives: A software repository for uploading source packages to be built and published

Portable Executable (PE) format: Windows unique version of .exe

Primary account: The initial account you made during setup

Process monitoring: A way of monitoring what processes are happening during installation

Prompt: A prompt shows you which directory you're currently in

R

Read and execute permission: Permissions that grant you access to read the file that exists and execute it if its runnable

Read permission: Permissions that grant you access to read the file that exists

Regular expression: A pattern matching language that describes words, phrases, or more complicated patterns; regular expressions are used to help you do advanced pattern-based selection

Relative path: It is a path from your current directory

Repository: A server that acts like a central storage location for packages

Root directory: A parent directory for all other directories in a file system

Root user: It is the first user that gets automatically created when we install a Linux OS and has all the privileges of the OS. Also called the super user. There's technically only one superuser or root account, but anyone that's granted access to use their powers can be called a superuser too

S

SACL's: System Access Control List

SD devices: Mass storage devices like hard drives

Security paths: A piece of software that is meant to fix up a security hole

Shell: A shell is a command line interpreter for Linux

Side-by-side assemblies: A system that manages most shared libraries and resources on Windows and supports access to multiple versions of the same shared library automatically

Side-loading: A process of installing mobile apps directly without using an app store

Simple permissions: Special or specific permissions

Single sign on (SSO): An account that grants you access to multiple accounts without require constant entry of a password or username

Standard error (stderr): A data stream that redirect the output of error messages in a different output stream. It works both in Linux and Windows

Standard in (stdin): A data stream in which the input that you provide through the keyboard goes to the standard in stream of the process that you're interacting with. It works both in Linux and Windows

Standard out (stdout): A data stream that when a process creates output, it adds data to the standard out stream, which flows out of the process. It works both in Linux and Windows

Standard user: A user who is given access to the machine but has restricted access to do things like install software or change certain settings

Stdin, stdout, stderr: Three data streams created when you launch a Linux command

Subdirectories: A directory below or at a deeper level in the directory hierarchy

Sysinternals package: A set of tools released by Microsoft that can help you troubleshoot

T

Tab completion: A way to auto-complete a command or file names and directories

W

Wildcard: A character that is used to help select files based on a certain pattern

Windows domain: A network of computers and users that are added to a central database

Windows Search service: A service that indexes files on your computer by looking through them on a schedule

Windows store: A Windows store is an application repository or warehouse where you can download and install universal Windows platform apps

Windows update client service: System that runs in the background on your computer to download and install updates and patches for your operating system

Write permission: A permission that allows you to make changes to a file

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