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Files And File Types

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File Management:

Computers can store information on several different storage magnetic disks, magnetic tapes etc. A computer can store millions of bytes of data or information. so that we can store and access data easily from the storage device the operating systems provides us data file system.

Directories/Folders:

A directory is a file that holds other files and other directories. You can create directories in your home directory to hold files and other sub-directories.

Having your own directory structure gives you a definable place to work from and allows you to structure your information in a way that makes best sense to you.

Files and File types

Today files and folders on computers are becoming then their corresponding analogies in the file cabinets. Not so long ago the variety of file types was increasing with the variety of computer programs. These days computer world has been moving towards standardization of the major file formats and the way that new file formats can be introduced. This section describes the basic notions connected with the files and file types.

1. Files and file types in operating systems

In the world of computers **file** is a collection of data or information kept on a computer storage - hard disk, diskette, CD, backup tape, etc. Each file in a computer system has a *name*. Different operating systems use different file systems, thus, they have different conventions about the name. There are many different types and formats of files: data files, text files, program files, directory files, and so on. Many different types of information may be stored in a file: source programs, executable programs, numeric data, text, payroll records, graphic images, sound recordings, and so on. A file has a certain defined structure according to its type. A text file is a sequence of characters organized into lines, program files store programs. The table below shows some file types.

Table 1. Some file types

<i>Batch file</i>	Same as command file - contains operating system commands.
<i>Binary file</i>	Contains data or instructions in binary format.
<i>Command file</i>	Contains operating system commands. It is a text file.
<i>Data file</i>	Contains data
<i>Directory file</i>	Contains bookkeeping information about files that are below it
<i>Executable file</i>	Contains a program or commands in a format executable by a computer
<i>Library file</i>	Contains functions in object format.
<i>Map file</i>	Contains a map of a program
<i>Object file</i>	Contains code that has been compiled
<i>Text file</i>	Contains textual data (that is, data that can be read by humans), including files you create with a text editor and any file in ASCII format.
Word processor	Wp, text, rrf etc
Print or view	Ps, dvi, gif
Archive	Related files grouped into one file, sometimes compressed, for archiving or storage

Different types of files store different types of information, and different operating systems have different way of distinguishing the file type. A popular way, which came from the DOS world and become popular through the popularity of Windows9x/NT operating system is the use of a filename with the structure "something. extension". "Something" is an arbitrary name (an advice - don't use "spaces" in the

name), and the "extension" after the dot is usually a three (sometimes four) letter abbreviation, which tells the operating system what is the file type. Then Windows associates an icon with that file type, for example (Figure 1), "doc" is associated with Microsoft Word Document files, "exe" is associated with computer program.

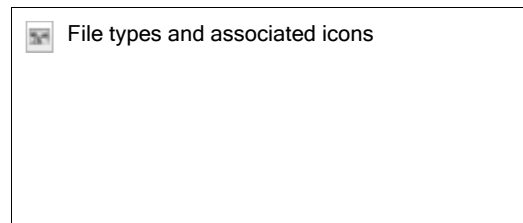


Figure 1. File types - associations between icons and extensions

The table below shows some of the file types that you may come across during this course.

File type	Extension
<i>Text</i>	
ASCII	.txt, .asc
HTML files	.html, .htm, .shtml, .dhtml
RTF files	.rtf
Binary word processing files*	.doc, .wri
<i>Images</i>	
Photoshop native format	.psd, .pdd
GIF compressed	.gif
JPEG compressed	.jpg, .jpeg, .jpe, .jfif
TIFF image	.tif, .tiff
Windows bitmaps	.bmp
Picture format	.pic, .pct, .pict
Portable Net Graphic	.png
<i>CAD</i>	
CAD exchange files	.dxf
Drawing Web Format	.dwf
<i>Animations, audio & video</i>	
GIF animations	.gif
Sound files	.wav, .au, .aif, .mid
Video files	.mov, .mpeg

* Word processing files although are text documents are in binary format, which means that they include variety of control symbols. When text files can be edited with any text editor, binary files can be edited correctly with the applications that understand them.

File Attributes:

A file has certain attributes, which vary from one operating system to another such as

Name: The symbolic file name is the only information kept in human readable form.

Types: This information is needed for those systems that support different types.

Size: It shows current size of the file.

Time, Date & User identification: This information may be kept for

1. Creation
2. Last modification
3. Last use

These data are useful for protection security and usage monitoring

Windows Explorer is a file management tool

Try to think of the structure of this file management tool as a filing cabinet with folders inside of filing drawers, etc. This concept is represented in Explorer with a "tree" type of appearance -- directories come off main drives; files come off directories, etc.

On the left side of your Explorer window are the folders in your chosen drive. The Explorer view begins with Desktop, followed by My Computer, and lists all your drives, followed by other folders or programs contained within the Desktop and My Computer.

Your directory structure is indicated by the indentation levels in Explorer's left pane. On the right side are the files and folders that are contained within the folder you select at left. Your selected folder appears to be open, with its contents spilling out into the right panel.

A minus sign on a folder means that it is fully expanded. A plus sign on a folder means that more files are contained inside it than are visible.

When you want to see details of your files (i.e. size, date created/modified), click on 'View', 'Details'.

When you just want to see a list of files, click on 'View', 'List'.

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