2 USING THE COMPUTER AND MANAGING FILES IN WINDOWS

2.1 TURNING THE COMPUTER ON/OFF AND RESTART

2.1.1 TURNING THE COMPUTER ON

We start the computer with the appropriate button or switch. When it turns on it automatically loads the operating system (in our case Windows).

2.1.2 SWITCHING OFF

Proper computer shutdown is an important event. We know that our work space is in the computer memory, and that this memory is temporary - after powering down the information from that memory is lost. Which means that if we turn it off in the middle of our work in the wrong way (such as pulling the power cord), we lose any unsaved information in memory. You can avoid this by turning the computer off properly by terminate all running applications and then the PC is switched off by selecting the Start menu - turn off (or switch to sleep mode). This is important so that the operating system can store the required system information on the hard disk.

2.1.3 PC REBOOT

Reboot means to restart the computer – loading the operating system and getting the PC in the default ready state. We do this mainly in two cases - if there was a collision of system programs and system got "stiff" (ie causing problems or not responding to any commands), or if we install any new equipment or software.

Restarting your computer has two levels - the "warm start" (click Start, Shut Down option and select Restart, or press Ctrl + Alt + Delete, Disable and Restart) or "cold start" (for PCs push the reset button, hold the laptop in 4 seconds notebook button which turn up). The difference between warm and cold start is at the level of data reintegration - cold start is almost the same as if we turned off the computer and the immediately turn it back on after few seconds..

2.2 WINDOWS MANAGEMENT

Windows are basic element of the Windows operating system.

Note.: windows principle is advantageous because it can open more programs at the same time - one in each window and freely switch between them and copy the content (for example, we have opened a web browser and MS Word and copy the text from the Internet to the word document).

THERE ARE THREE TYPES OF WINDOWS:

- Application windows – containing running programs (window closes when the program is ended), or the window shows a folder content.
- Dialog window it is used for communication between the user and the application or between the user and operating system - operation confirmation etc.
- Document – windows of several documents opened simultaneously in one application.

2.2.1 CHANGE OF THE SIZE AND WINDOW POSITION

Quick change in window size (minimize or maximize or restore its original size) can be performed using the appropriate icon on the right side window header.

Click the icon to the left window to minimize the "button" on the taskbar (bottom bar on the desktop screen). To restore the original size of the window, click on the "button" on the taskbar. If the window is not maximized, click the middle icon on the display window full screen (maximize it). After maximizing the window you can restore its

original size by clicking the middle icon. Maximize or restore window to its original size, we can also double click on the title bar.

If we want to continuously change the size of the open window, the window may be minimized or maximized. To resize a window, place the pointer on the edge or corner, and when the pointer becomes a double arrow, drag the edge while holding the left mouse button - the window size changes in the direction of the cursor movement.

2.2.2 MOVEMENT BETWEEN THE WINDOWS

Switching between open windows (or running programs) can be in several ways. If we can see the window to which we want to switch, then just click the mouse in that window.

If this window is not visible (it is obscured by another window or minimized), we can activate it by clicking its shortcut (button) on the taskbar. When running some programs, especially installation of new programs, we cannot see the taskbar. Then it is possible to switch between windows / running programs using the Alt + Tab - while holding the Alt key, pressing Tab, select Window from the menu that appears when you press Tab the first.

2.3 ORGANIZING DATA ON THE HARD DRIVE

2.3.1 DISK DRIVE

Disk drives are used for storing your computer data. It can be a single hard drive, part (section) of a hard drive, or device for reading removable media (e. g. CD-ROM, DVD-ROM drive, flash drive).

Individual disk drives are lettered from A to Z. These letters are usually assigned as follows::

- A: B: - diskette/floppy drives (these are not used any more with new PCs and notebooks, so these letters are not used there)
- C: - part of the hard drive used for the operating system
- D: E: F: ... – further hard drives, or hard drives parts (so-called logical partitions), CD, DVD, Flash disk..

2.3.2 FILES

Each file is a data package. It contains a set of data that is linked together in some way. It can be a text document, image, program, audio recording, etc.

Each file has a name - it consists of names and extensions. The name can be up to 250 characters long (cannot contain the characters \ /: *? "<> |). Suffix (separated by a dot from the name) characterizes the type of file - what data the file contains. Extension is mostly composed of 3 to 4 characters. Files should be named in a way to best describe its contents.

For example, the file diplomwork.txt - "diplomwork" characters are the name, and the extension is txt. The extension tells Windows (and the user) that in this is a text file that can be opened by programs associated with this extension, such as WordPad or Notepad.

Note.: Each program installed on your computer is designed to open one or more file types, each of which is identified by a suffix. If there are more programs on your computer that can open a certain file type, then one program is set as the default.

Here are some most common file types:

Suffixes of office documents
- DOC, DOCX   text document – application MS Word
- PDF   document for electronic communication - application Adobe Acrobat (Reader)
- PPS, PPT   presentation, application MS PowerPoint
- RTF   text document

- TXT   simple text document (most text editors can open it)
- XLS, XLSX   document (table / graph...) application MS Excel

Suffixes of graphic files (pictures, photos)
- BMP   file with bitmap graphic without data compression
- GIF, PNG   graphic file useful especially for logos, animations and internet pages
- JPG, JPEG   graphic file useful for example for photos presentation on the internet
- PSD   graphic file for the Adobe Photoshop application
- TIF, TIFF   graphic file (mostly photos)

Suffixes for multimedia files
- AVI, MPG, MPEG, WMV   video files
- MP3   sound in the MP3 format (compressed)
- WAV   uncompressed sound file
- WMA   sound file alternative to MP3

Suffixes of files that start certain applications – such files are part of applications itself
- EXE, COM, BAT   files that start certain applications

Pozn.: In Windows operating system you will encounter a special file called a "representative" - a reference file to another folder or another file (a sort of "shortcut") which does not contain any data or program.

2.3.3 FILES

A computer disk, which is in operation for some time, can contain several hundreds or thousands of files. If they were all together, it would be very difficult to navigate between them. All files are organized - located in folders (sometimes named directories). Each folder can contain both files and other (sub) folders. If we paint such a structure, we get the folder tree structure (see figure)).

Same rules apply for naming files as they do for folders, with the exception that there is no suffix.

Top-level folder on the disc is named the root folder (root). In the operating system it is marked by a slash and drive letter (e. g. "c: \").

There cannot be two files with the same name in one folder, although there can be files with the same name in different folders.

```
[Tento počítač]
  [C:] SYSTEM
    [Addon]
    [CanoScan]
    [Config.Msi]
    [Documents and Settings]
    [Dokumenty]
      [Audio]
        [Cela alba]
          [Doors]
          [Johnny Cash - At Folsom Prison]
        [Ostatni]
        [Singly]
      [Fotky]
        [Krajina]
        [Portret]
        [Reportaz]
      [Ostatni]
      [Stazeno z internetu]
        [data]
        [programy]
      [Texty]
        [ostatni]
        [prace]
        [skola]
          [diplomka]
          [kurzy]
      [Video]
        [filmy]
        [stazene z youtube]
```

2.4 FILE AND FOLDERS MANAGEMENT

There are many different applications for folder and file management, but we will learn to work with the Explorer, which is included with Windows. We get to the application through "Computer" on the desktop or via Start -> Programs -> Accessories -> Windows Explorer. When you start it, you will see a list of available drives in the PC.

2.4.1 VIEWING FILES

Folders can be viewed in several ways. Double-clicking on the folder (the icon) opens a window with the folders content. In the top window panel are buttons with which you can choose how to display folders (icon / list / details / images)

Display Icons / Thumbnails is clearer, but the Details view contains more information (creation date, file size, etc.). Display detailed information can be sorted by any column visible (click the appropriate column header - another click on the header will change the sort order - ascending or descending).

2.4.2 DISPLAYING THE FILE/FOLDER PROPERTIES

Each file and folder has properties and attributes - such as name, size, file type, date last modified, but also information that determines whether a file is read-only, hidden, or ready for archiving (backup).

Information about the file can be viewed by calling the local (or also context) menu of a file or folder (right click the mouse on the name of the file / folder) and selecting "Properties". Some properties of a file can change, others do not.

Note.: Using the context menu is very effective and important tool for work in Windows. The majority of elements in the system (files, folders, icons, buttons, windows ...) can be right-clicked to display other possible actions for that specific element. Whenever you are not sure how to proceed, try to invoke the context menu - it usually helps

2.4.3 FOLDER AND FILES SELECTION AND HIGHLIGHTING

If we want to work with any file, you must first select (mark) it. To do so with one file, click on it (once) with the left mouse button. Multiple files can be selected in two ways - if the required files are close to each other, we can select the group by press the left mouse button (hold it pressed) and drag the mouse pointer diagonally across the group levied. Once you release the mouse button, the files remain selected.

To select multiple files that are not adjacent, press Ctrl and then click (once) with the left mouse button for each file you want to add to selection (by repeatedly clicking on the selected file again removes it from the selection) and after releasing the Ctrl key, those files remain marked.

2.4.4 COPYING FOLDERS / FILES

Copying works the same way with both folders and files. It can be done in two ways - using the clipboard or drag and drop.

Procedure that uses the clipboard: with a selected file (or files) Right-click (invoke popup menu) and select "Copy". Seemingly nothing happens, but the opposite is true - the selected objects were stored in clipboard (see below) and now they can be put to a different location in the tree - in the window, we display the contents of the folder in which you want to paste data from the clipboard, and then we select "Paste" - either from the top menu (the bar at the top of the window), or from the context menu.

Note.: Clipboard is an invisible space used to temporarily store information that you copied (or moved) from one location and you want to use them elsewhere. The clipboard can be used to copy files and folders, or text or graphics between applications

Procedure without using the clipboard: first, we simultaneously display the source and destination folder, then select the file, folder or group of objects. We move the selected object (s) with the mouse while holding down the right mouse button and drag it from the source to the destination folder. Release the mouse button and from the menu that appears, select "Copy here".

2.4.5 MOVING FOLDERS / FILES

Moving files and folders works in the same way for both folders and files. And again, it can be done in two ways - using the clipboard or drag and drop. Both procedures are the same, therefore, only in the first case instead of "Copy" choose "Cut" (the procedure is identical). And in the second case, instead of "Copy here" choose "Move here".

2.4.6 RENAMING FILES / FOLDERS

To rename the object select it, then click the right mouse button and select the "Rename". In the box then write a new name and press Enter

2.4.7 DELETING FILES AND FOLDERS

To delete object, click on it with the right mouse button and select "Remove". The system will ask if you want to really delete the item - we will confirm by pressing YES.

The second way to delete is first select the object and then press the DELETE key.

To delete multiple objects, we need to select (highlight) all of them and then follow the above-described manner.

2.4.8 OPENING FILES

We open the file by double-clicking on it with the left button on its name or icon. Alternatively, the file can be opened via the invocation context menu and selecting "Open With …"

2.4.9 SEARCHING FILES

To locate the file on your PC you need to enter part, or all of the file name on the line in the upper right corner of the Explorer window.

Pozn.: Windows 7 is a new feature - Libraries, for an explanation of the concept and further details on searching for files, visit this site: http://windows.microsoft.com/cs-cz/windows7/help/videos/finding-your-files

2.4.10 FILE COMPRESSION AND DECOMPRESSION

Compression (including compression, packaging, zipping) data enables us to reduce the space required for their storage, as well as reducing the time required for the transmission of data communication (internet, e-mail)

Data - mainly text, database files and some video files contain repeated sequences of identical information, compression works by replacing a large number of recurring characters with just a few characters.

The effectiveness of compression is variable and depends on the type of data. Text and graphics can usually be compressed to a large extent. Compressing already compressed data is not effective

Various compression applications are used to data (such as WinRar, WinZip, etc.). Compression from multiple files and / or folders into one so-called archive will create one file (its depending on the compression program extension. Zipper. Rar,. Arj, etc.)

Decompression (or expand) is the reverse process, in which we get back the original files from the compressed archives.