

Task

1. Consider the quick reference to the components in section **Explorer**.
2. Use mode **Test** to test your ability to assemble a desktop computer from starch. You must still follow the layers of access, however you will not receive any instruction.

Control questions:

1. The place of the computer in the sciences?
2. What is the address of memory organization?
3. What is associative memory organization?
4. What is a stack of memory organization?
5. How is memory speed?

Practical class № 4

«MicrosoftWord as a word processor. Inserting pictures, creation graphical objects»

Objectives: to develop skills as using graphical objects, such as OLE technologies.

Creation pictures in Word. These are the basic types of graphics that you can use to enhance your Word documents: drawing objects, SmartArt, charts, pictures, and clip art. Drawings refer to a drawing object or a group of drawing objects. Drawing objects include shapes, diagrams, flowcharts, curves, lines, and WordArt. These objects are part of your Word document. You can change and enhance these objects with colors, patterns, borders, and other effects. (На ленте управления: **Insert tab (Вкладка Вставка) ⇒ Illustrations group (Группа элементов Иллюстрации) ⇒ Shapes objects (Объект Фигуры)**).

Group selected shapes. Select several shapes at a time by pressing CTRL on your keyboard and clicking each shape you want to include in the group. On the **Format tab (Вкладка Формат)** in the **Arrange group (Группа элементов Упорядочить)**, click **Group (Группировать)** so that all of the shapes will be treated like a single object. To cancel the group select your object and click **Group (Группировать) ⇒ Ungroup (Разгруппировать)** or use context menu.

Pictures can be inserted (or copied):

1. from other applications (for example, Paint, MsDrawing, Paintbrush and et.)
2. Drawing object in current document (using **Shapes objects**).
3. Using **Clipart** or Online pictures.

After you have inserted a picture or drawing object into a Word document, you can use a variety of tools to position the item relative to the page and text.

Picture position in text.

1. Select your picture, then open the **Format tab (Вкладка Формат)**.
2. Click on **Wrapping Text (Обтекание текстом)**. Click the wrapping position that you want to apply.

OLE technology. The main differences between linked objects and embedded objects are where the data is stored and how you update the data after you place it in the Word file.

You place either a link to the object or a copy of the object in the document. You can insert objects this way from any program that supports the technology of linking and embedding objects (object linking and embedding, or OLE).

For example, a monthly status report may contain information that is separately maintained in an Excel worksheet. If you link the report to the worksheet, the data in the report can be updated whenever the source file is updated. If you embed the worksheet in the report, your report contains a static copy of the data.

1. Embedded object
2. Linked object
3. Source file

Linked objects. When an object is linked, information can be updated if the source file is modified. Linked data is stored in the source file. The Word file, or destination file, stores only the location of the source file, and it displays a representation of the linked data. Use linked objects if file size is a consideration.

Linking is also useful when you want to include information that is maintained independently, such as data collected by a different department, and when you need to keep that information up-to-date in a Word document.

Embedded objects. When you embed an Excel object, information in the Word file doesn't change if you modify the source Excel file. Embedded objects become part of the Word file and, after they are inserted, they are no longer part of the source file.

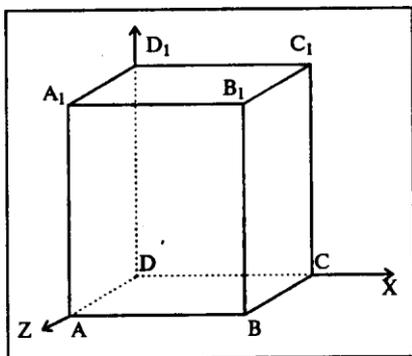
Because the information is totally contained in one Word document, embedding is useful when you don't want the information to reflect changes in the source file, or when you don't want the document recipients to be concerned with updating the linked information.

Two ways to use OLE technologies: Open Insert (Вкладка Вставка), then on the Text group (Группа элементов Текст)

1. Click on Object (Объект)
2. Click on Text from file (Текст из файла)

The first method can be used for embedding (linking) a document fragment or an entire document, the second one is used only for an entire document.

Exercise 1. Create scheme (see on the picture), group all graphical objects.



1. draw the rectangle ABB_1A_1 ;
2. make a line, for example, A_1D_1 ;
3. copy A_1D_1 and insert three times BC , B_1C_1 and AD ;
4. make lines CC_1 , DD_1 , DC and D_1C_1 ;
5. select lines and click on Format tab (Формат Вкладка) \Rightarrow Shape Styles group (Группа элементов Стили фигур) \Rightarrow Shape outline (Контур фигуры), choosing Dashes (Штрихи) \Rightarrow Type of dashes (Тип штриха) – dotted-dashes (штрихпунктирный);
6. finish drawing reference axes, choosing the instrument Line with arrow (Линия со стрелкой). For selecting AutoShape style, click the right button of the mouse over the object and select Format

AutoShape (Формат автофигуры) in the right click menu.

7. For placing the letter in the place required click on Insert tab \Rightarrow Text group \Rightarrow Text box (Надпись) .
8. Clicking the button Line color (Цвет линии) in Format tab (Вкладка формат) \Rightarrow Shape Styles group (Группа элементов Стили фигур) \Rightarrow Shape outline (Контур фигуры) (the frame should be selected), select in the given pallet No line (Нет линии), similarly the following Fill color (Цвет заливки) — No fill (Нет заливки), your frame becomes transparent. Now the text can be placed in it (we need only one letter – top labelling).
9. Select your frame, copy it and paste 10 times. Sub index is established with the Home tab (Вкладка главная) \Rightarrow Font group (Группа элементов Шрифт) \Rightarrow Subscript (Надпись) press CTRL+= (Нижний индекс).
10. Modify the drawing into the single graphics object. For this purpose activating on Home tab (Вкладка главная) \Rightarrow Editing group (Редактирование) \Rightarrow Select (Выбор) \Rightarrow Select objects (Выбор объектов) button stretch the punctuated frame around the whole drawing (select the drawing) and click Format tab (Вкладка формат) \Rightarrow Arrange group (Группа элементов упорядочить) \Rightarrow select Group (Группировать).

Advancement questions:

1. What tool can be used for drawing the graphic objects in Word text processor?
2. What approaches is the work with graphics based on in Word text processor?
3. What is OLE – technologies?
4. What is the difference between linked objects and embedded objects?
5. What does Group objects mean?

Practical class № 5

Subject: «Spreadsheet processor MS Excel. Data entry and editing. Addressing cells. Calculating values of a function. Master function.»

Purpose: Repeat the basic concepts of Excel spreadsheet, create the ability to enter and edit data, use various types of addressing when solving problems, generate skills to calculate the values of functions to plot functions.

In a spreadsheet application, at a very basic level, values often need to be added, Class programs for the creation and processing tabular data in electronic form, called tabular processors or spreadsheets. Feature spreadsheet is the possibility of applying the formulas to describe the connection between the values of the various cells.

Excel document is called a workbook, the book is a collection of worksheets, each sheet has a table structure, and may contain one or more tables. The maximum number of worksheets - 255, they are designated as the Page 1 (Sheet 1). Excel document is saved as a file with the extension * .xls. User representation spreadsheet Excel XP (worksheet) consists of 65,536 lines (rows) and 256 columns or columns (columns), that appear on the computer screen. Rows are numbered from 1 to 65536 and the columns or the column marked with the Latin letters A, B, ..., Z, AA, AB, ... IV. At the intersection of the row and column is the basic structural element of the table - cell (cell). By the contents of the cell can be accessed by its address (link), for example, A5.

In the worksheet cells may be the following types of data: text, Constants and Formulas. In one cell, you can enter up to 32,767 characters of text or numerical.