Instructions of using the spreadsheet ERTEK_EN.XLS

General instructions are provided here. Additional detailed instructions, as well as documentation of the calculations, are included as Notes within the spreadsheet. You can read the Notes by putting the cursor, without clicking, on the cells having a red mark at the upper right corner.

General adjustments

In the sheet "***Materials***" write in the yellow cells in the rows 3 "*Price (€) per m^2*" and 4 "*Price (€) per Kg*" the price of the respective material, as it stands in your district. Consider that the price of the materials "*Structural Steel of Joints*" and "*Structural Steel of Connectives*" includes the price of construction of the respective products, which depends on the production method.

In the sheet "***Labor***" write in the yellow cells in the rows 17-20 (column B) the respective price of labor and machinery hire, as it stands in your district.

Adjustments for project analysis

In the sheet "***Project***", write in the yellow cells in the rows 2: "*FLOORS*" and 3: "*SLAB UNITS IN ONE FLOOR*" respectively the number of the floors and the average number of slab units (3.60 X 3.60 m^2) of a floor of the building.

Fill also the yellow cells in the rows 16, 17 and 18 (column C) which concern premises about the stair units. If you don' t want the stair units to be taken into account in the project's scheduling (as typically the stair units do not belong to the ERTEK system) write 0 in all these cells.

In the sheet "***Labor***", write in the cell B21 (referenced as "Low average day temperature") the number **0** if the average day temperature during the building process is expected to be higher than 10 Celcius degrees, or the number **1** otherwise.

In the same sheet, write in the yellow cells of the column C: "*Time of activity (days)*" (rows 5-12) the time of workers' activity concerning the respective work, in working days, with respect to the following rules:

- The time of activity for each work should not be shorter than the respective minimum time reported in column B: "*Minimum time of activity (days)*".
- The resulting numbers in the columns E: "*Unskilled workers*", F: "S*killed workers*" and H: "*Quantity of machines*" should be consistent to the number of workers and machines that you can devote at the same time to the respective work, considering that the works "*Assembly*", "*Pipework*" and "*Stair units*" can be partially parallelized (see sheet "***Time Schedule***"). Note that these numbers decrease (or remain intact) when the duration of the respective work (column D) increases.

As you are testing different values in column C: "*Time of activity (days)*" you can watch the resulting values of the total production price (column K: "*Total Production Price*"). In general the latter values decrease (or remain intact) when the duration of the respective work decreases, but this rule has some exceptions.

Returning to the sheet "***Project***" you can see the total price of the project, the analysis of this price (in both absolute value and percentage) according to the structural elements, the materials and the works of the production, as well as the quantities of the materials.

The sheet "***Time Schedule***" presents the time schedule of the project

Remark

The initial prices of materials, labor and machinery hire reflect the present situation in Greece, while the initial project definition values specify a three floor building having 8 slab units (3.60 X 3.60 m^2) per floor: that is plot covered area 104 m^2, built-up area 311 m^2.