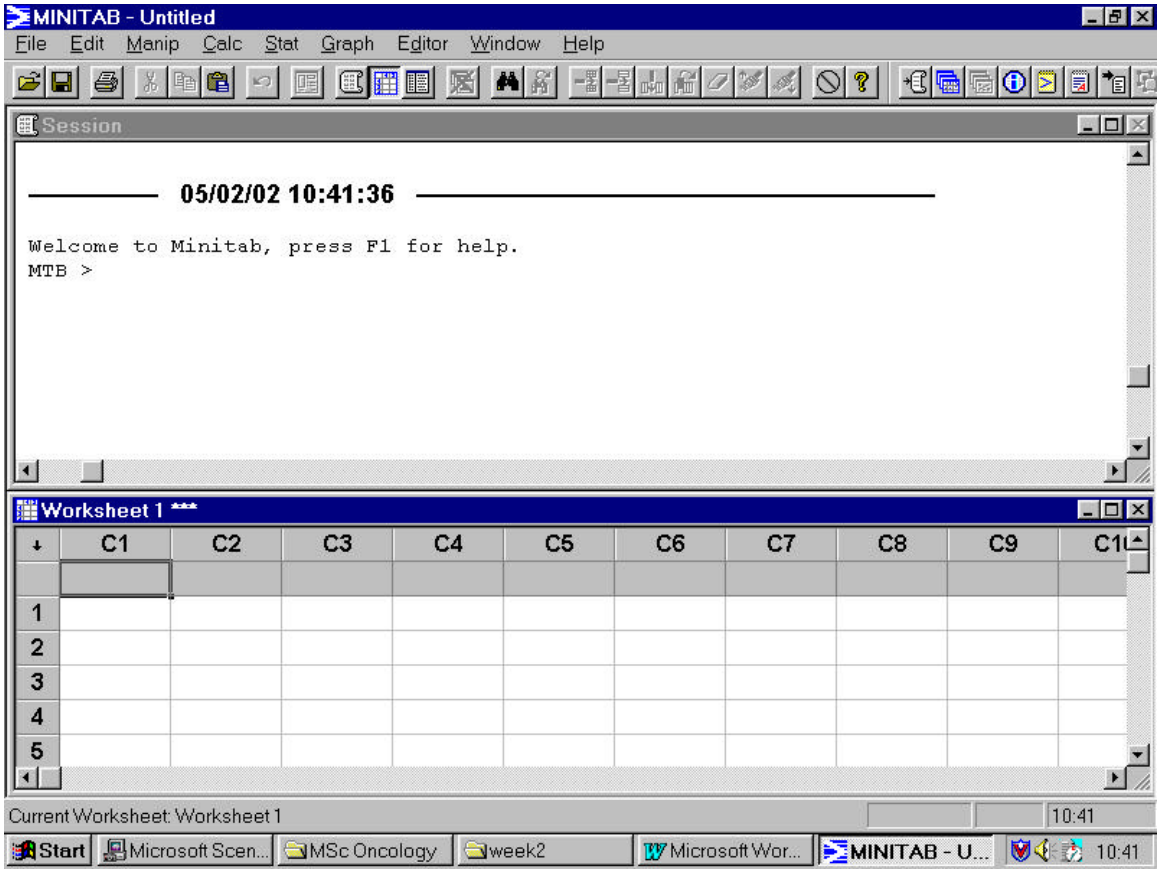
Running Minitab for the first time on your PC

Screen Appearance

When you select the MINITAB option from the MINITAB 13 for Windows program group, you will see the following screen.



There are several features to comment on.

1. The main features of the screen are the two windows: the upper one is the **Session Window** and the lower is entitled **Worksheet 1 *****, although it is also conveniently referred to as the **Data Window**. The terms worksheet and Data Window are used more or less interchangeably. In this view the Data Window is the active Window, as the bar at the top is the Windows colour. The Session Window is inactive as the bar at the top of that window is greyed out. To make a window active, just click somewhere in the Window.
2. Above the Session Window is a row of icons, which can be used to achieve various tasks. Explore these by all means, although the course does not make use of them.
3. Above the row of icons is the Menu bar: it is through this that we will make Minitab work for us.

There are other windows, and these can be accessed by the **Window** item on the menu bar. However in this course only the Data and Session windows are needed.

Graphs in Minitab
When you come to plot graphs in Minitab, they will display in their own Window. This will happen automatically, it is not something you have to do. If you draw lots of graphs you can get a disconcerting build-up of windows, so make sure you get rid of graphs you do not need, by clicking on the X in the top right of the window. Be careful not to close the Session or Data Windows when doing this!

The Data Window

The rows of the Data Window are numbered 1, 2, 3 and so on. The columns are labelled C1, C2 etc. There are many columns in Minitab, the exact number depending on some internal settings and the amount of memory in your machine: to access columns not displayed use the scroll bar on the bottom on the bottom of the window.

It is usual to organise the data in the worksheet so that each row refers to a different case (often a patient or volunteer) and each column refers to a different variable. For example, the first column might give the heights of children in a class and the second column would be their weights. The third column might be used to indicate if the child was a girl or a boy.

Suppose that we have the following heights (cm) and weights (kg) for four children

Height	Weight	Sex
95	15.3	0
101	16.7	0
99	14.9	1
108	17.3	0

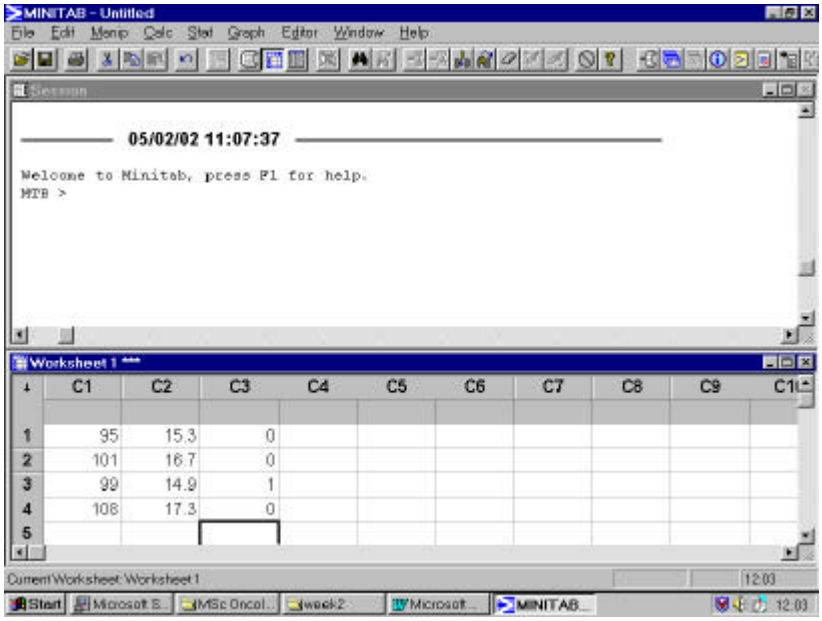
where 0 indicates a boy and 1 a girl.

To enter these data, click on the cell in row 1 under column C1. The cell will acquire a slightly thicker border, indicating that it is the 'active' cell. Type the number 95. Then press the enter key. The active cell should then become the cell in row 2 of column C1[†]. Now type 101 and press enter. When all the heights are entered, either use the arrow keys to navigate to row 1 of C2, or just click on that cell. Now enter the weights. Repeat the process to enter the 0s and 1s to indicate the sex of the child.

Note that if we had not known the weight of the second child, then a 'missing value' could have been entered in row 2 of C2. The symbol for this is *.

Once all these data have been entered, the screen will look as follows:

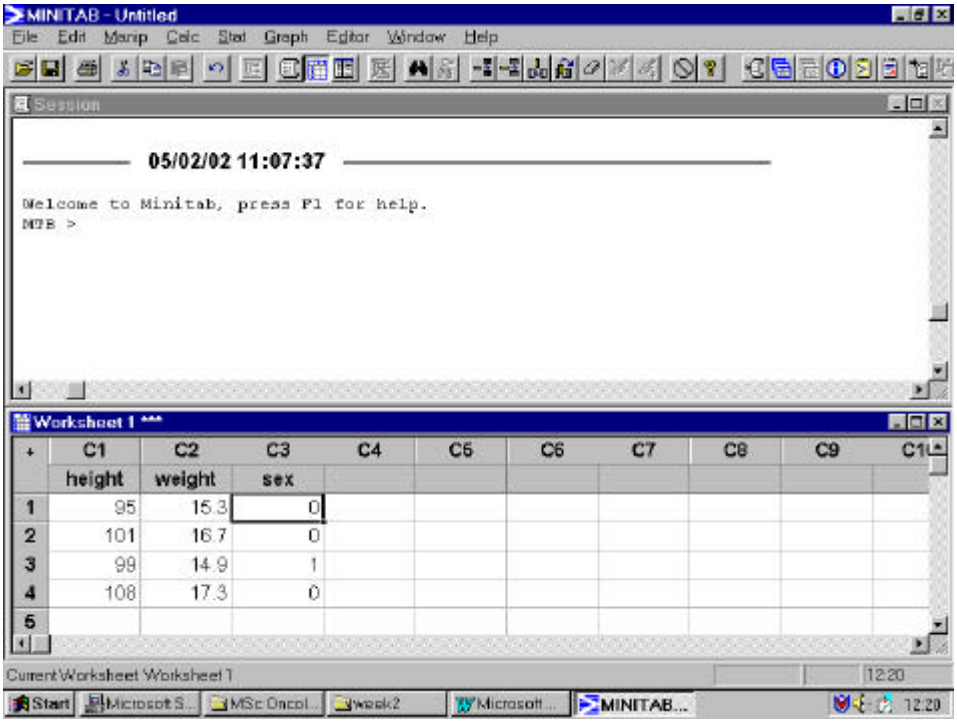
[†] If the cell in row one of C2 becomes active, the 'direction of data entry' is set to row-wise, not column-wise. In this case the arrow in the square at the top left of the Data Window will be pointing to the right, rather than down. To change this, just click on that arrow.



You could, if you wished, start analysing these data now. For example, if you wanted to compute the mean height, you would issue a command asking Minitab to compute the mean of C1. That is, we would refer to the heights by their column label, C1.

Something else that we could do is save the data. It is hardly worth it for such a small set, but we could easily have entered a much bigger set of data. Rather than have to enter the data each time we wanted to analyse them, we can save the worksheet on our hard disk and then retrieve it for later use.

However, if we saved these data and then returned to them next week, then it would be useful to know which column is height and which is weight. It might not seem difficult with this small worksheet, but if there were 100 columns entered it would be a major task. To get round this we can name our columns and this is what the unnumbered grey row, just above row 1, is for. To name column C1 'height', click in the grey box below C1 and type the name and then press the Enter key to indicate that you have finished. Repeating the process for the other columns gives the screen below.



Saving the Worksheet

To save the Worksheet, click on **File** on the menu bar and then on **Save Current Worksheet**. You will then be presented with a standard Windows file dialogue box. Clicking on Save will save the Worksheet in a file called Minitab.mtw in the DATA sub-directory of the directory in which Minitab was installed (see document on installing Minitab for details). It is sensible to change these defaults, perhaps creating your own data sub-directory (the default directory is full of example datasets packages with Minitab) and making up a different name.

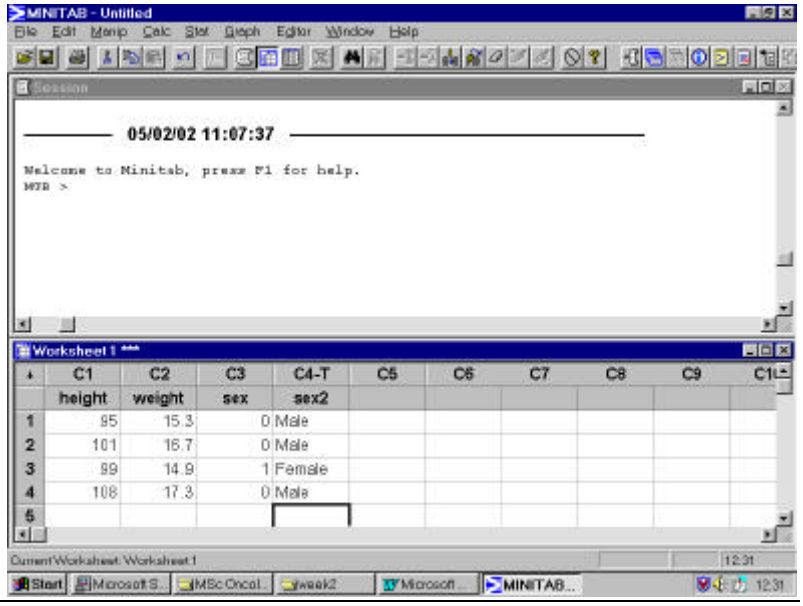
Note that if you have already saved the Worksheet, but then you have made changes to it, the new version can be saved by clicking on **File** -> **Save Current Worksheet**. This will replace the old version on disk with the new version, without prompting to ask if you are sure that that is what you want to do – so make sure it is what you want to do!

The Worksheet is not a spreadsheet

The Worksheet looks a bit like a spreadsheet, such as Excel. However there are some important differences. Suppose that column C1 contained the blood glucose measurement of a some patients at 10 pm and C2 the corresponding values at 2 am. Then the facilities in Minitab exist to compute the difference in glucose measurements between the two times and place this difference in, e.g., C3. However, Minitab knows that C3 contains the difference, but unlike Excel it doe not store the formula. So, if you discovered that an entry in C2 was in error and you corrected it, the corresponding value in C3 would *not* change to reflect the correction.

Numeric and Text columns in Minitab

One criticism of the final screen is that you may forget whether 0 indicated a boy or a girl. It is possible to have text, such as Male or Female in columns in Minitab. If you do this then the heading of the column changes to, e.g., C4-T, to indicate that it is a text column (although you still refer to it simply as C4). Text columns are useful for the confident user but can prove confusing for the beginner and we will generally try to avoid them



The Session Window

When you click on the various menu items in order to instruct Minitab to perform various analyses, the results are displayed in the Session Window. Also, if the command language is enabled then commands can be typed directly into the Session Window (see installation document to find out about enabling the command language). This is actually a very efficient way of working for the experienced user but we will not use it[†]. Commands will be selected by using the menus.

After doing one of the tasks in the following weeks, or analysing some of your own data, you may well want to save the results. To do this, make sure that the Session Window is the active window and then click on **File**. Then click on **Save Session Window As…** and you will be presented with the usual Windows file dialogue box. You can save the Session Window as an ordinary text file or as a Rich Text Format (RTF) file. This kind of file can be read by most word processors, such as Word or WordPerfect and preserves more of the formatting. To save as an RTF file, click on the down arrow at the end of **Save as type:** box and select Rich Text Format (*.RTF).

Exiting Minitab

To leave Minitab, click the x at the top right of the program (on the bar starting MINITAB). A dialogue box will appear asking if you want to save changes to this Project before closing. The distinction between the projects and worksheets will

[†] Except when using macros, which cannot be invoked through the menus

be discussed in the next document. In this course we will make little use of Projects. Consequently, provided you are satisfied that the worksheet has been saved (assuming you want to save it), you should click on No. Minitab will now close.