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Spreadsheet Management Software Cases

Spreadsheet Case 1

TDC Office Environments

Problem:	Develop a receiving log
Management skills:	Organization Controlling
PC skills:	Data input Worksheet formatting Printing
File:	TDC_Q.XLS

TDC Office Environments is a small firm that manufactures office furniture and equipment, such as computer and printer stands, desks, and chairs. It receives its components from various suppliers in the United States and Europe. These materials are delivered to TDC's Receiving Department. The Receiving Department uses a receiving log to record each shipment delivered.

Receiving Department staff complain that they have to revise the log constantly as new shipments arrive during the day. Revising the logs is becoming very time-consuming because they have to write each new shipment down in a notebook. There are too many entries to keep track of manually and corrections are difficult to make. Theresa Connolly, head of the Receiving Department wants to find a way to create a receiving log that can be immediately revised, rearranged, and updated.

From your diskette load the worksheet file TDC_Q.XLS. This worksheet contains a list of shipments for February 1, 1999. Use your spreadsheet software to create a receiving log schedule that Theresa and her staff can refer to on-line or print out. The log should list the date, shipper's name, purchase order number, and the number of packages for each shipment received. The log must be organized so that shippers are listed in alphabetical order by date.

The look and shape of spreadsheets are extremely important if the information they contain is to be utilized effectively. Professional looking spreadsheets are formatted in special

ways so that information can be located and digested quickly. The format should allow for easy changes and updating. This problem shows you how to develop professional looking, maintainable spreadsheets.

Tasks

There are 6 tasks to this problem:

1. Create appropriate column headings to capture the required information. There should be column headings for Date, Shipper Name, Purchase Order, and Number of Packages. The column headings for Date and Shipper Name have already been provided in the worksheet and can be used as a model.

2. Create appropriate widths for each column and decide whether to left justify, right justify or center the column labels. Some of the worksheet columns have already been widened for you.

3. Complete the log by entering the remaining shipment information. The following table will be helpful:

Date	**Shipper**	**Purchase Order**	**No. Packages**
1/28/99	Bernolli Inc.	A2203	6
1/28/99	RH Jensen	A3405	3
1/31/99	Barton Plastics	A4903	9
1/31/99	CDC Frames	A2216	7
1/31/99	Warren Lumber	B0219	12
2/1/99	Ace Upholstery	B1101	9
2/1/99	Greenwood Fittings	B3102	4

Note: Be sure to enter the date as a label.

4. The Receiving Department just found out that a shipment of 2 packages was received from Zeitler's Finishings on January 31, 1999 and another shipment of 5 packages was received from Barton Plastics on February 1, 1999. Add the information about these shipments to the log by inserting rows to make sure the log remains in sequence by shipper name in alphabetical order by date.

5. Complete the aesthetic re-make of the log by placing dotted lines under column labels.

6. Print out the log. You should be able to print this spreadsheet on a single 8 and one-half by 11 inch page. Go to maximum margins and page length.

Time Estimates

Expert: 30 minutes
Intermediate: 45 minutes
Novice: 1.5 hours

Excel Tutorial For Spreadsheet Case 1

This case draws upon the data entry skills you have already acquired in developing COURSE.XLS, plus new skills for formatting and printing spreadsheets. You will need to use COURSE.XLS again for this tutorial.

How to Retrieve a Data File

Begin by accessing Excel again. When the spreadsheet screen appears, your first step will be to load the data file COURSE.XLS. This can be done by either selecting the Open File button on the toolbar or accessing the Open command under the pull-down File menu. The Open dialog box will appear.

The settings within the dialog box need to be amended in order to load the file. The four items that have to be set are the File Name, the File Type, the Folder (or Directory for Windows 3.1) and the Disk Drive. A list of files of the type specified on the Disk Drive specified, in the Folder or Directory specified appears in the File List window. To change the settings to retrieve COURSE.XLS, firstly ensure **Microsoft Excel Files** appears as the File Type. If it does not immediately, it can be changed by pressing the downward pointing arrow next to the File Type window with the mouse arrow, revealing a list of File Types Excel can import. To move up and down the list, select the arrows on the scroll bars next to the list. Select the required File Type with the mouse pointer.

For Windows 95, use the Look in list arrow to select the Folder and Disk Drive where the Solve it! files are located. (Users of Windows 3.1 should select the Folder or Directory where the *Solve it!* files are located.) The COURSE.XLS worksheet should also be stored here and displayed in the File Name list. The files are listed alphabetically so if the desired file is not visible, you can move down the list using the scroll bars. Alternatively, you can simply type COURSE.XLS under the File Name. Typing the three letter extension to specify your file is optional When the settings are correct, select the OPEN (or the OK) button or press the ENTER key.

How to Insert or Delete Columns and Rows

Suppose you wanted to add lines under the column headings in your student roster. You can insert columns and rows in a worksheet in either of two ways in Excel. Firstly, through the menu command **Insert/Rows**; and, secondly, using the shortcut menu displayed by activating the right-hand button of the mouse, and selecting **Insert**, which presents four options:

Shift Cells Right
Shift Cells Down
Entire Row
Entire Column

Selecting **Entire Row** from the options presented inserts a blank row.

A third method is to select an entire row and then select **Insert** from the shortcut (mouse) menu, or by selecting **Insert/Cells** or **Insert/Rows** from the menu. To select an entire row, you move the mouse cursor over the row number at the left of the worksheet and press the left mouse button. To select multiple rows, keep the left button depressed and drag up or down.

Now to insert the blank line in your student roster. Move the worksheet current cell to the row below the column headings, that is move to row 7; it doesn't matter to which column. Now select **Insert/Row** from the menu and you will notice a blank row is inserted in row 7 and the data previously in rows 7 through 10 will be moved to rows 8 through 11. Your worksheet screen now looks like Figure 3-1.

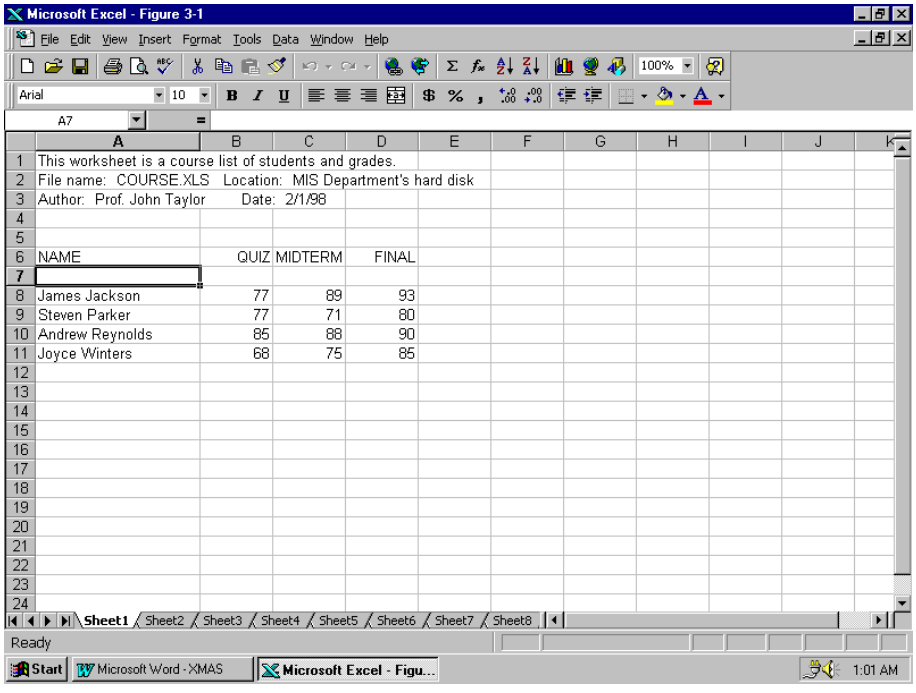
You can delete one or multiple rows and columns using the same principles to inserting rows and columns. There are two ways of accessing the **Delete** command in Excel: firstly, through the pull-down menus, located at **Edit/Delete**; and secondly through the shortcut menu activated by the right-hand mouse button. If entire rows or columns are selected when these commands are selected, the effects will be immediate: the row(s) or column(s) will disappear straight away.

If entire rows or columns are *not* selected when these commands are selected, the following options will appear:

Shift Cells Left
Shift Cells Up
Entire Row
Entire Column

Selecting **Entire Row** or **Entire Column** from the options presented inserts a blank row or column.

Figure 3-1



To make the worksheet documentation section conform to the spreadsheet design principles introduced in Chapter 2, let's add a fourth line to the documentation section. In cell A4 enter "Ranges: none Macros: none". (We will add macros and range names in later tutorials.) Then insert a row so that there are two rows between the documentation section and the course list itself.

Moving and Copying the Contents of Cells

After using the **Insert/Rows** command again, you will have a blank Row 8. You can now add separator lines in this row to further set off the column headings from the data on the list.

This is a convenient time to explain some extremely commonly used and useful operations: Moving and Copying. A Move is referred as a Cut in Excel and is simply relocating the contents of one or more cells. A Copy reproduces the contents of the cells. Both Cuts and Copies have to be accompanied by a Paste operation. The Cut or Copy designates *from where* the cells are cut or copied whilst the Paste designates *to where* they are being placed.

As with most operations in Excel, there are several ways to achieve cutting and copying. There are five different ways to achieve cuts and copies:

1. Using the **Cut**, **Copy** and **Paste** functions from the **Edit** menu
2. Using the **Cut**, **Copy** and **Paste** functions from the **Shortcut** menu
3. Using the buttons on the Toolbar for **Cut**  , **Copy**  and **Paste** 
4. Using the keystrokes for **Cut** (Ctrl-X), **Copy** (Ctrl-C) and **Paste** (Ctrl-V)
5. Using the mouse cursor by dragging and copying.

Each of these is worth exploring at least once and you can decide which you find the most convenient. Generally speaking, most users use two of the methods listed. For example, some users cut and copy within a small area in a spreadsheet using the mouse dragging and copying, and cut and copy between larger areas and between spreadsheets using one of the other techniques. Once you become familiar with each method you will see they are very similar, and they all require you specify a source range of cells, an operation (cut or copy), a destination or target range and the paste function.

It is worth explaining the mouse method of cutting and copying since it is extremely useful. This method applies to a single cell or a multiple selection. When you move your mouse cursor to the border of a selection on the worksheet, it transforms from a white cross to an arrow. This is the signal that you can now perform the drag or copy.

To drag (or cut) the contents of the selection, depress the left mouse button and move the mouse, keeping the button down. As you move the mouse across the worksheet a shadow of the selection will also be moved until the mouse button is released to designate the destination of the drag. This operation may require some practice but will become second nature very quickly and an important editing function.

To perform the mouse copy, the actions are nearly identical to the drag (cut). The mouse cursor is moved to the border of the selection and the cross till turn into an arrow. At this time, press the Control key and keep it down. A small tell-tale cross will appear next to the arrow, indicating that we are performing a copy rather than a move. Now drag the selection as we did for the move and when the mouse button is released you will see the copy operation has worked.

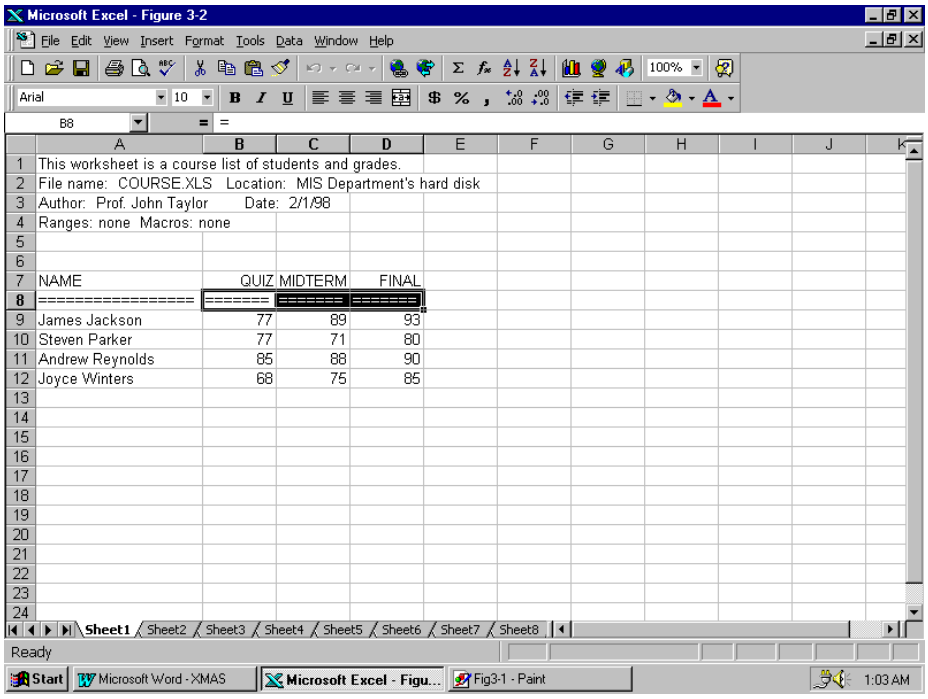
After practice you will realize that each of the different cut and copy methods result in identical results.

Returning to COURSE.XLS, we now want to insert some decorative separators in the cells in Row 8 to distinguish the headings from the body of the table. To do this, we will enter "=" (without the quotes) and select the **Alignment Fill** command to fill the cell width with this symbol.

First, press "=" and ENTER in cell A8. Now select **Format/Cells** for the Formatting box to appear. This box has six formatting tabs: Number, Alignment, Font, Border, Patterns, Protection. Select Alignment by clicking on the tab label at the top of the box. In the Horizontal Alignment section, select Fill and then select the OK Button or press ENTER. The cell will be filled with the "=" symbol.

Once you have set up the first cell, you can replicate it in all the cells in Row 8 below column heads. Do this by using the **Edit/Copy** command. First, select the **Copy** command from the **Edit** menu. Notice the moving border around cell A8, indicating a copy or cut source. Next, select cells B8, C8 and D8, referred to as range B8:D8. Do this by moving the mouse cursor to cell B8 and depress the left button and drag to the right until the desired range is selected. Now select the **Paste** command from the **Edit** menu. This will copy the formatting and contents of cell A8 to the range selected. Your worksheet should look similar to Figure 3-2.

Figure 3-2



Printing Your Worksheet

For printing a simple worksheet such as your student roster, which is one page or less, you need only know the basic printing commands. Select the **Print** command under the **File** menu and a dialog box will appear. The various options in this dialog box can be explored later but for our purposes, simply accept the default settings and press the OK Button.

In this case, Excel will simply print the page containing the student roster. Features that can be adjusted, including paper size, page orientation, scaling, margin sizes, alignment, header and footer contents and options, print titles, page print sequence and print area can be found under **Page Setup** under the **File** menu (see below). Before printing, the appearance of your page can be observed under **Print Preview** under the **File** menu so paper need not be wasted.

As Excel is printing your page, a small message box appears stating which page is currently being printed. This box contains a Cancel Button which can be chosen if you want to stop the printing.

Changing Excel's Printer Options

The printing options in Excel can be changed under **File/Page Setup**. Four formatting tabs will appear in the Page Setup dialog box: Page, Margins, Header/Footer, Sheet.

Under **Page** you can decide on features pertaining to individual pages being printed. The first option is Page Orientation, that is to decide whether the page should be printed in landscape (horizontal wide, vertical narrow) or portrait (horizontal narrow, vertical wide) mode. The second option permits you to scale the size of the print up or down a specific percentage, or scale to fit a certain number of pages where the computer determines the requires percentage scaling. The next option permits you to change the paper size between various standard sizes (e.g. A4, Letter, Legal). The next option allows you to change the Print Quality (in Dots Per Inch), typically available on dot matrix printers. The final option permits you to specify the starting page of printing. To print from the start, enter 1 or AUTO; otherwise enter the page number from which you wish to commence.

Under **Margins** you can change the margins which border the pages. The size of the margins on each page edge can be specified, in the units specified (inches, centimeters). The next option is the distance between the edge of the page and the header or footer. The last options are whether to centre the print subject vertically and horizontally on the page.

Under **Header/Footer** you can change the appearance of the headers and footers of the printed pages. The operation and options of headers (appearing at the top of every page) and footers (appearing at the top of every page) are the same. Each is offered a number of default sample headers, a list you can add to. Pressing **Custom Header** or **Custom Footer** permits you to change the header/footer. Each is split into thirds: left, centre and right. In each or any of these sections you can enter any text or enter any of the options offered: current page number, total pages in print, Current Date, Current Time, Document Name and Sheet Name. The fonts of any text can also be changed using an available button.

Under **Sheet** you can change the print features pertaining to the worksheet. Firstly, you can precisely specify the range on the worksheet you want to print. This is done by placing the cursor in the window provided and then highlighting the range on the worksheet. The next option lets you specify Print Titles which are either rows or columns that are to appear on every printed page. These are useful for lists or tables that extend beyond the confines of a single page. The Next group of options are general purpose ones: Print Gridlines, Print Draft Quality, Print Black and White and Print Row and Column headings. The final option is the Page Order, that is whether to print down and across or across and down.

Save COURSE.XLS with the changes you made during this tutorial session. You will need it for the next Spreadsheet Case.