

Microsoft Excel 2013™

Cell Formats and Styles (Level 3)

Contents

Introduction	1
Formatting a Cell	2
Formatting Text	2
Formatting Numbers	2
Numeric Text	4
Formatting Cells	4
Advanced Formatting	6
The Number Tab	6
The Alignment Tab	6
The Font Tab	6
The Border Tab	6
The Fill Tab	7
The Protection Tab	7
Built-in Styles	7
Customising a Style	8
Creating a Style	9
Conditional Formatting	9

Introduction

In the same way that a paragraph or piece of text uses a format to specify its appearance in Microsoft Word, a format can be applied to a cell or its contents in Microsoft Excel. Not only are there the usual font, font size/colour, bold/italic/underline and justification settings found in Word but also less commonly-used aspects such as background colour, borders and text orientation. In addition Excel allows you to format a number (eg how many decimal places) or date/time (eg to display the month as *August* or *Aug* or */08/*). By applying a format you do not alter the contents of the cell in any way - just how it is displayed.

Where a particular cell format is to be used on a regular basis, it can be stored as a style - just like the styles in Word such as *Heading 1* or *Normal*. Excel already has a few built-in styles, such as *Percent* and *Accounting* but you can also define your own.

Formatting a Cell

You should be familiar with the regular formatting buttons in the *Font* and *Alignment* groups on the **HOME** tab - ie [Font], [Font Size], [Bold], [Italic], [Underline], [Borders], [Fill Color], [Font Color], [Align Text Left], [Center] and [Align Text Right]. Excel has further buttons in these groups, as you'll see in the following exercises, and yet more in the *Numbers* group, which are specifically for formatting numbers.

Formatting Text

Text can be formatted in Excel in much the same way as in Word:

1. Start with a new workbook (press <Ctrl n> for a new file) or move to an empty worksheet
2. Type **Formatting Text** in cell A1 then press <Ctrl Enter> to enter the text and remain in A1
3. Try out the [Font], [Font Size], [Bold], [Italic] and [Underline] buttons in the *Font* group

You'll find they act just as they do in Microsoft Word but on the whole contents of the cell. To apply a format to just part of the text:

4. Drag through the word(s) to be formatted on the *Formula Bar* - eg select the word **Text**
5. Click on the required format button(s)
6. Press <Enter> to see the result and move to cell A2

You can also apply the required formatting as you type the text:

7. In A2 type **Circumference=2** then click on the [Font] list arrow and choose **Symbol**
8. Type the letter **π** then click on the [Font] list arrow again and choose **Calibri** (note that π only shows as such in the cell, not on the *Formula Bar*)
9. End by typing the letter **π** then press <Enter>

Tip: When entering text into a cell, use <Ctrl b>, <Ctrl i> etc to apply or turn off bold/italic/etc as you type.

For super/sub-script:

10. In cell A3 type **Area=** then change the [Font] to **Symbol**, type a **π**
11. Change the [Font] back to **Calibri** and type **π**
12. Next, click on the **Font group arrow** (or press <Ctrl Shift F>) to display the *Format Cells* dialog box
13. Under *Effects* turn on **Superscript** - press <Enter> for [OK]
14. Type **2** then press <Enter> to finish typing

Note that certain characters can also be typed in by using <Alt> and the *Numeric Keypad* - superscript 2 is <Alt 0178>, for example.

Tips: Another way to get text with special characters into Excel is to type it in Word then **Copy** and **Paste** it across. You can also make use of **AutoCorrect Options...** (in the *Proofing* set under **Options** from the **FILE** tab) to set up abbreviations for text - any entries here are available throughout *Microsoft Office*.

Formatting Numbers

As well as the normal formatting available for text, Excel provides special formatting for numbers. Whenever such data is typed into a cell, Excel automatically tries to give it an appropriate format. It's important to understand these formats and to know how to clear or change them, if necessary.

1. Move down to cell A5
2. Type **Formatting Numbers** in the cell then press <Enter> to move to A6
3. Type the number **1234.56** then press <Ctrl Enter> to remain in A6

4. Click on the **[Accounting]** style button on the left of the *Number* group - a pound sign and comma (thousands) separator appears
5. Now try out the next four buttons: **[Percent Style]**, **[Comma Style]**, **[Increase Decimal]** and **[Decrease Decimal]** – there's also the **[Number Format]** button above these with further formats
6. Click on **[Decrease Decimal]** again and note how the data is rounded to the nearest value

To clear a format:

7. Click on the **[Clear]** button in the *Editing* group on the right and choose **Clear Formats**

Note: Cell formatting can also be applied using the following key combinations:

- < **Ctrl !** > - Apply *Number* format with 2 decimal places
- < **Ctrl \$** > - Apply *Currency* format
- < **Ctrl %** > - Apply *Percentage* format
- < **Ctrl ^** > - Apply *Exponential Number* format
- < **Ctrl #** > - Apply *Date* format
- < **Ctrl @** > - Apply *Time* format
- < **Ctrl ~** > - Apply *General Number* format (this can be used to clear any of the above)

It is all too easy to impose a format on a cell by accident:

1. Press < **Enter** > to move to cell A7
2. Type £5 into the cell then press < **Ctrl Enter** > to remain in A7
3. Try typing other numbers into cell A7, including some which are not whole numbers - all are shown as a currency (even though you aren't typing the pound sign) and rounded to the nearest whole number

A format may also be automatically copied to another cell in a calculation:

4. Move to cell A8 and type in the formula =a7/10 and press < **Ctrl Enter** >

Again, the answer is shown as pounds!

Automatic formatting can give very peculiar results - you need to understand what's happening:

5. Use < **up arrow** > to move back to cell A7
6. Type 5-2 and press < **Ctrl Enter** >

Excel interprets this as a date (5th February in the current year, as displayed on the *Formula Bar*) - you forgot the equals sign if you wanted to calculate 5 minus 2. Dates are stored as numbers (in fact the number of days since the start of the year 1900). In cell A8 this value has been divided by 10, but the cell has retained its original format - hence the result of £4204 (in 2015). Now, whenever you try to type a number into cell A7 you will find it will be converted into a date. To see this:

7. Still in cell A7, type in a number - press < **Enter** >
8. If ##### is displayed, the number you entered is too large or negative – try again

To clear the unwanted formats from both the cells:

9. Drag through cells A7 and A8 to select them then click on **[Clear]** and choose **Clear Formats**

Tip: Another way to clear an unwanted format is to use *format painting* - move to a cell which hasn't been formatted, click on the **[Format Painter]** button then on the cell with the rogue format.

Another useful numeric format is *Fraction*. This doesn't have its own button on the *Ribbon* but is accessed either via the **[Number Format]** button or by typing in the data in a special way:

1. Move to cell A9
2. Type 0 1/2 (there must be a space between the 0 and the fraction) then press < **Enter** >
3. In cell A10 type =a9*a9 – press < **Enter** >
4. In cell A11 type =a10*a10 – press < **Ctrl Enter** >

The answer appears as 0! This is because the current fraction format is set for 1 digit. To solve this:

5. Click on the **[Number Format]** button and choose **More Number Formats...**
6. Choose **Up to two digits (21/25)** then press < **Enter** > for **[OK]**

Numeric Text

One numeric format which Excel doesn't allow is leading zeros. This makes it difficult, for example, to store telephone numbers with their full dialling codes. The answer is to store the number as numeric *text*. To do this, you either fix the cell format as *text* (see later) or precede the number with a single quote:

1. Move down to cell A13 and type **Numeric Text** - press <Enter>
2. In cell A14, type in **0118** then press <Enter> - you'll find the leading 0 disappears
3. Repeat step 2 but precede the number with a single quote (between the <L> and <Enter> keys)

You will find the leading zero is displayed (but not the quote) and it appears on the left of the cell

4. Try applying a numeric style (eg **[Percentage]**) - you will find the numeric text doesn't change

Because the number is stored as text, numeric styles do not apply. If you were to type in a number without the leading single quote, then they would. Using a single quote to insert text in this way is useful for other characters too. For example:

- showing equations with a leading equals sign
- showing numeric text which include dashes and/or slashes (otherwise interpreted as dates)
- Showing numeric text which includes a colon (otherwise interpreted as a time)
- showing a leading plus sign
- where you have a numeric heading (eg year date) which mustn't be included in calculations

This last example can be very important. Try summing up the values in cells A14 and A15:

5. Move down to cell A16 and press <Alt => (or click on the **[AutoSum]** button on the **HOME** tab)
6. Press <Enter> to accept the range A14:A15

Note that the answer doesn't include A15!

7. Move up to A15 and type **0118** (missing out the quote) then press <Ctrl Enter> - as before, the leading zero is lost and the number is included in the sum (the cell only had a temporary *Text* format)
8. Now click on the **[Number Format]** button and choose **Text** - the number moves to the left but the sum doesn't change

This is very confusing as you would expect the data to be stored as numeric text. Only when data is entered into a cell *after* it has been formatted as text format has been is this particular format applied!

9. Type in the information again (or press <F2> for *edit mode* then <Enter>) and it will be stored as numeric text - the sum no longer includes it (the cell now has a permanent *Text* format, until cleared)

Formatting Cells

So far you have seen how the contents of a cell can be formatted. In this next section you will format the cell itself. The buttons provided on the Ribbon let you set the justification, fill and font colour, cell border and text orientation. You will explore further formatting options in the section following this one.

1. Move down to cell B18 and type **Formatting Cells** then press <Ctrl Enter> to stay in the cell
2. Click on the *list arrow* attached to the **[Font Color]** button and select a different colour - note how the colours change as the mouse passes over them (like they do in Word)
3. Next, click on the *list arrow* attached to the **[Fill Color]** button and select a different colour - again, the cell background changes colour as you move the mouse over them

Note how only cell A1 is coloured - you are formatting just this cell, even though the contents spill into the cell to the right.

4. Click on the *list arrow* attached to the **[Borders]** button and select a **Thick Box Border** then press <Enter> to move to B19

Again, note how the border isn't drawn on the right. This is because it would interfere with the text spilling into B1. To cure this and the fill colour you need to merge the cells (or widen the column):

5. Drag through cells B19 and C19 to select them then click on **[Merge & Center]** (to the left of [Currency]) – the *Fill Color* is now correct but only the left border is retained
6. Repeat step 4 to create a border around the merged cells

[Merge and Center] is more frequently used to centre headings across sets of data - eg to place a year date over 12 columns showing the months. If you don't want the heading centred, simply rejustify it:

7. Click on the **[Align Text Left]** button

One disadvantage of merged cells is that some of the usual Excel commands no longer work properly. Here are a few examples:

8. Select column B by clicking on the column heading letter and then **[Cut]** it - an error message appears
9. Try **[Copy]** instead then click in cell E1 and press <Enter> for **[Paste]** - the merged cell isn't copied
10. Select column B again and change the **[Fill Color]**, choosing a different one from cell B19 - only cells above and below B19 are coloured
11. Click on **[Clear]** and choose **Clear Formats** (the error message again appears)
12. Select both columns B and C then repeat step 10 – this time it works (as would *Cut/Copy/Clear*)
13. Press <Ctrl z> twice to **[Undo]** the new fill colour

To remove the merging:

14. Click on cell B19 then on the **[Merge & Center]** button again - cell C19 reappears but retains the fill colour and border settings of the merged cell
15. Finally, *double click* on the border between column headings B and C to *autofit* the column width to the text in that column (ie in B19) – it would have been much easier to do this in the first place!

The other buttons in the *Alignment* group let you justify the text vertically, display it at an angle or change the indentation. Begin by increasing the height of the top row:

1. Press <Ctrl Home> to move to cell A1
2. Move the mouse cursor on to the border between row 1 and row 2, hold down the mouse button and increase the row height to about 50 pixels
3. *Double click* on the border between column headings A and B to *autofit* the column width
4. By default, text is positioned at the bottom of the cell – click on the **[Top Align]** button to move it up
5. Next try **[Middle Align]** then **[Center]** – the text is now centred both horizontally and vertically

Now test out the orientation settings:

6. Click on the **[Orientation]** button and choose **Angle Counterclockwise**

You'll find that not all the text appears – that's because Excel has imposed a fixed row height

7. Click on the **[Format]** button in the *Cells* group and choose **AutoFit Row Height**
8. Now try out some of the other options available via the **[Orientation]** button – the row height changes automatically
9. Choose the same **Orientation** twice to return the text to normal
10. Move the cursor to the border between column headings A and B and reduce the width to 80 pixels
11. Now click on **[Wrap Text]** in the *Alignment* group – the words appear on several lines

To view or change the current settings:

12. Click on the **[Orientation]** button and choose **Format Cell Alignment** – the *Format Cells* dialog box appears
13. Note how you can specify the settings precisely, but here, press <Esc> for **[Cancel]**

Advanced Formatting

So far you have used the buttons on the *Ribbon* to set the cell format. In this next section you will look at some of the other settings available via the *Format Cells* dialog box.

1. Move to cell B2 then click on the *Number* group arrow - the *Format Cells* dialog box is displayed

Note: You can display the dialog box by clicking on any of the *Font*, *Alignment* or *Number* group arrows or via **Formal Cell Alignment** from **[Orientation]** as you saw above.

The Number Tab

By using the *Number* group arrow, you move directly to the *Number* tab of the dialog box – you can also get here from **More Number Formats...** on the **[Number Format]** button. Here, you can specify exactly how you would like a number to appear. *General* gives no specific format and can be used to clear other formats.

1. Click on the *Category* **Number** – here you can set the number of decimal places, comma separator and how negative numbers should appear (red or black)
2. Click on the *Category* **Currency** - here, you can also set a currency symbol
3. Click the *Category* **Accounting** – an *Accounting* format differs from a *Currency* in that the currency symbol appears on the left of the cell, away from the numbers
4. Explore the other *Categories*, seeing what they have to offer (**Custom** formats are dealt with later)
5. End by choosing the **Text** format – press <Enter> for **[OK]**
6. Type a number into the current cell (B2) and press <Enter> - note that it appears on the left of the cell
7. In cell B3 click on the **[AutoSum]** button then on B2 and press <Enter> for =SUM(B2) – the answer is 0
8. Type another number into B2 – the answer is still 0 (here the *Format* has been fixed as *Text*)

The Alignment Tab

You have already looked at the *Alignment* tab, but there's one further setting of interest:

1. Move to cell B4 then click on the *Alignment* group arrow - the *Format Cells* dialog box is displayed
2. Under *Text control* turn on **Shrink to fit** then press <Enter> for **[OK]**
3. Type **Shrinking text** into cell B4 then press <Enter>
4. Decrease the width of the column by moving the mouse to the border between the column letters **B** and **C** and dragging the border to the left - the text becomes smaller
5. Repeat step 4 but drag the border to the right - the text increases in size up to the default (11 point)

The Font Tab

The additional features on the *Font* tab include extra *Underline* options and *Effects* such as *Strikethrough*:

1. Move to cell B5 then click on the *Font* group arrow - the *Format Cells* dialog box is again displayed
2. Change the *Font*, *Font Size* and *Font Colour* – you can set them here as well as on the *Ribbon*
3. Set *Underline* to **Double** and *Effects* to **Strikethrough** - press <Enter> for **[OK]**
4. Type in some text (eg **Strikethrough**) and note the settings

The Border Tab

You saw earlier how to set borders via the button on the *Ribbon*; here, try setting a special border line *Style* and/or *Color*. You can even have different colours/styles for each border!

1. Move to cell B6 then click on [**Borders**] button and choose **More Borders...** – the dialog box appears
2. Select a border *Style:* from the selection provided
3. Click on the *list arrow* attached to *Color:* and choose a border colour
4. Choose which *Border* you want in that style/colour and click on it (under *Border*)
5. Repeat steps 2 to 4 for the other borders – you can even set diagonal lines, if you want
6. Press <Enter> for [**OK**] to see the effect

Note: If you want to apply an outer border to a range of cells, select the cells before drawing the border.

The Fill Tab

You can't get directly to the *Fill* tab, so:

1. In cell B6, click on any of the *group arrows* used previously then click on the *Fill* tab

Here you have the normal range of *Fill Colors*, but you can also set a gradient or pattern:

2. Click on [**Fill Effects...**] and set up your *Colors*, *Shading styles* and choose a *Variet*
3. Click on [**OK**] *twice* to see the effect
4. Press <Ctrl z> to [**Undo**] the gradient then repeat step 1
5. Choose a *Pattern Color:* and *Pattern Style:* then click on [**OK**]
6. Use the [**Format Painter**] to copy the pattern to another cell

The Protection Tab

Again, you can't get directly to this tab from the **HOME** tab of the *Ribbon*, so:

1. Click on any of the *group arrows* used previously then click on the *Protection* tab

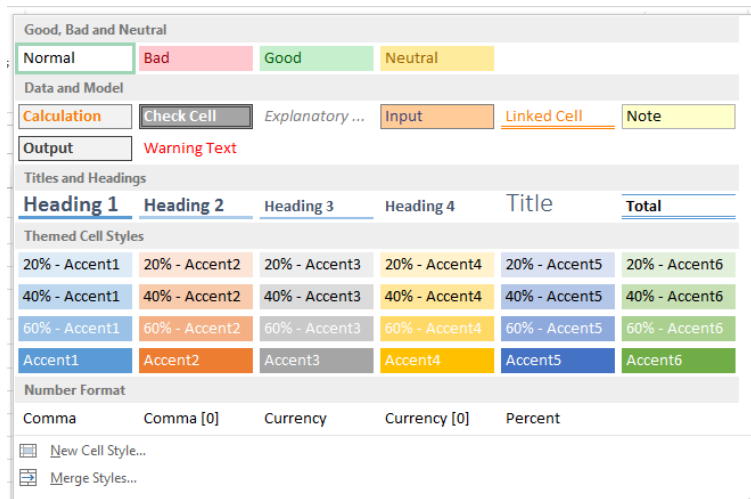
If you read the help provided on this tab you will discover that the options are ineffective unless the whole worksheet is protected. To find out more about this, see the document entitled [Microsoft Excel 2013: Security](#).

2. Press <Esc> (or click on [**Cancel**]) to close the *Format Cells* dialog box

Built-in Styles

Excel has a range of built-in styles, accessible from the [Cell Styles] button:

1. Click on the [**Cell Styles**] button in the *Styles* group on the **HOME** tab – the following appears:



A range of colour combinations (font and fill colour) is provided on these buttons with styles called *Good*, *Bad*, *Input*, *Warning Text* and *Title*, for example.

2. Move the mouse over the styles and note their effect on the current cell
3. Select an appropriate style for the current cell by clicking on one of the styles

There are also some additional number formats here, which automatically give you whole numbers:

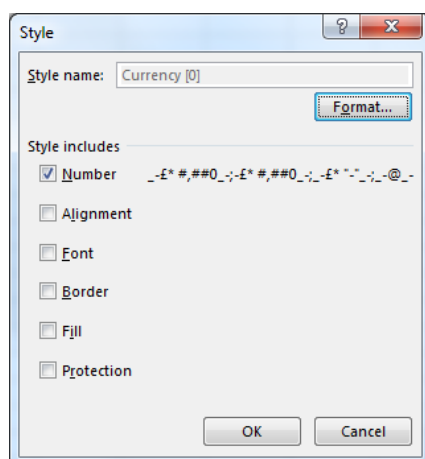
4. Move to cell B7 and type in **5.65** then press **<Ctrl Enter>**
5. Click on the **[Cell Styles]** button and choose **Currency (0)**

This gives you an accounting format with 0 decimal places - the **[Accounting]** button gave you 2. In the sections which follow you will customise an existing style and create your own style from scratch.

Customising a Style

Excel lets you customise an existing style:

1. Click on the **[Cell Styles]** button to open the selection then *right click* on **Currency (0)** and choose **Modify...** – the *Style* dialog box appears:



2. Click on **[Format...]** and the *Format Cell* dialog box appears

You can make any changes you like to the format (on any of the tabs), but here try setting up a Euro format:

3. Move to the *Number* tab then click on the *list arrow* attached to *Symbol*; scroll down the list and choose **€ Euro (€ 123)**
4. Press **<Enter>** for **[OK]** twice to format the number and close the *Style* dialog box
5. Try out the amended style on another cell (eg A7), if you like

Excel also allows you to create much more complicated formats, if you need to. Here, let's create a format which displays €123.45 cents.

6. Repeat step 1 but this time choose **Duplicate...**
7. Name the style **EuroCents** then click on **[Format...]**
8. On the *Number* tab in the *Format Cell* dialog box, set the *Category*: to **Currency**
9. Next, set *Decimal places*: to **2** and *Negative numbers*: to **-€1234.00** in red
10. Now, change the *Category*: again, this time to **Custom**

Under the heading *Type*: is the code used to create the format. It's very complicated and not that easy to understand. The first few characters define the Euro symbol, then the #, ##0.00 signifies the data to be used for the number (0 is a character which must be displayed; # denotes an optional character). This pattern is

repeated several times to cover what happens with negative numbers (eg are they shown in red), each pattern being separated by a semi-colon.

11. In the *Type:* box, click immediately before the first semi-colon - move the insertion point using the **<arrow keys>** if necessary
12. Type **"cents"** - the double quotes are needed to insert text
13. Press **<Enter>** for **[OK]** twice to close the dialog boxes

The new format isn't applied yet – to do so:

14. Click on the **[Cell Styles]** button and select **Eurocents** at the top of the selection

You should now have both the Euro sign and cents added to the display.

Note: you didn't change the settings for negative numbers. If you were to type a negative value into the cell, the word *cents* would not be shown. You can add this to the end of your format code, if you like.

Creating a Style

You saw in the above example how you could create a new style based on an existing one. In this next exercise you'll create your own from scratch. Creating a style works just the same as it does in Microsoft Word. The easiest way to do this is to format a cell with all the features you require and then save those settings as a style:

1. Move to cell *B8* and type in **€5.65** (to get the Euro sign, hold down the **<Alt Gr>** key to the right of the **<spacebar>** and press **<4>** - note that **<Alt Gr>** is equivalent to **<Ctrl Alt>**) – press **<Ctrl Enter>**
2. Change the **[Font Size]**, **[Font Color]** and **[Fill Color]** and make the numbers **[Bold]** and **[Center]** them
3. Now, click on the **[Cell Styles]** button and choose **New Cell Style...** at the bottom of the selection
4. Type the name for the new style (eg **My Euro**) and press **<Enter>**

You now have your own Euro style, which you could apply to other cells, as required.

If you decide you would like to modify a customised style, you'll find that you have to set up everything again from scratch.

Conditional Formatting

One very useful formatting option available in Excel is to be able to choose different formats depending on the contents of the cell. In this next exercise you'll be using the example file used in the *Intermediate* course (you can also download the file by clicking on the hyperlink in step 3):

1. Press **<Ctrl o>** for **[Open]** then click on **[Browse]** followed by **My Computer**
2. Next, *double click* on **Data (D:)** then **[Open]** the folder called **Training**
3. Click on [phoenix.xlsx](#) - press **<Enter>** for **[Open]**

Start with the built-in conditional formats (which can simply colour the cells or attach icons to them)

1. Click on the column heading letter **B** to select column *B*
2. Click on the **[Conditional Formatting]** button and choose **Highlight Cell Rules** then **Greater Than...**
3. Type a value in the box provided (eg **6000**) and change the format colour, if you like – press **<Enter>**
4. Repeat steps **1** to **3** but this time choose **Less Than...** and set a different colour

Note that the whole column is now coloured in! In the above exercise, you entered an arbitrary value to colour code the cells. It would be better to use the average:

5. First, select just the cells with numeric data – click on cell *B2* then hold down <Shift> and <Ctrl> and press <down_arrow> - you should have *B2* to *B51* selected
6. Click on the [**Conditional Formatting**] button and choose **Top/Bottom Rules** then **Above Average...**
7. Change the format colour, if you want, then press <Enter> for [**OK**]

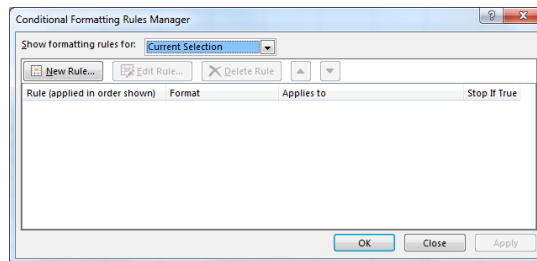
Next, try some scales and icons:

8. Select column **C** this time (by clicking on the column letter)
9. Click on the [**Conditional Formatting**] button and choose **Colour Scales**
10. Move the mouse over the predefined scales and select the one you like
11. Next, repeat steps 8 to 10 on column **D** but this time choose **Icon Sets**

As you can see, there are a host of options to choose from and you can customise these further using the **More Rules...** option. In fact this next exercise will show you how these work.

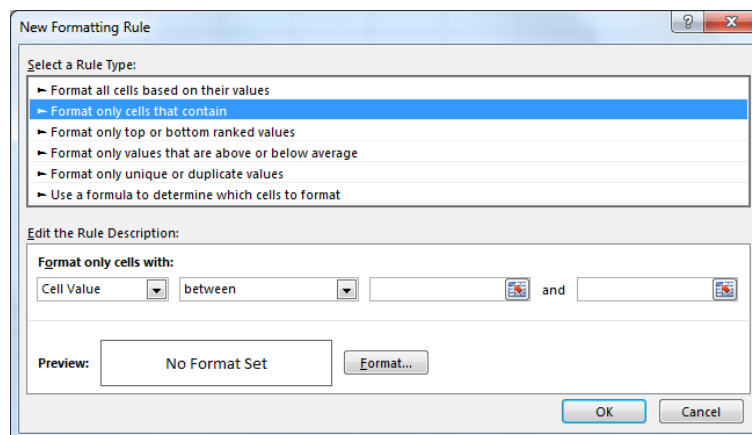
The final exercise in these notes is to colour the cells in column *F* according to the *Colour* specified in each cell.

1. Move to cell *F2* then click on [**Conditional Formatting**] and choose **Manage Rules...** – a dialog box appears:



Currently, you have no rules but you can now set some:

2. Click on the [**New Rule...**] button – another dialog box appears
3. Change *Select a Rule Type* to **Format cells that only contain** – the dialog box changes:



4. Using the list arrows etc, set the condition to read **Cell Value equal to Red-Brown**
5. Now click on the [**Format...**] button
6. Click on the *Fill* tab and choose a colour (eg the first of the *Standard* colours at the bottom)
7. Press <Enter> or click on [**OK**] twice to set up the first condition
8. Repeat steps 2 to 7 but set the condition to read **Cell Value equal to Blue-Green** and choose a blue-green colour from the palette provided
9. Click on [**OK**] again to set up the conditional formatting

Finally, you need to copy the conditional format to the other cells in the column:

10. Click on the [**Format Painter**] button on the left of the **HOME** tab
11. Click on the column heading letter **F** to paint the format to the whole column (you could also have selected the whole column before setting up the rules)
12. End by closing down Excel – there's no need to save the files unless you would like to