

## trivia

The feature that Excel uses to help you out with function calls first made an appearance in Visual Basic 5 back in 1996 and had the wonderful name:

*IntelliSense*. The Excel implementation is called *Formula AutoComplete*.

In 1996 I was working in Switzerland (as a programmer and analyst) developing a ski-school management application. I was extremely impressed by how easy *IntelliSense* made my job. I didn't have to remember hundreds of function names any more.

I was even slightly worried that just about anybody could now program (but, of course, I was wrong).

Recently I was in London being driven by a Hackney cab driver (Hackney cab drivers know every shortcut and back street in London). He was worried that Satellite Navigation would now mean that anybody could become a London cabbie.

Of course, he really had nothing to worry about either!

## note

### Excel automatically adds closing brackets to functions

If you type:

```
=SUM(B4:B5
```

... and then press the <Enter> key, Excel will automatically add the closing bracket for you resulting in:

```
=SUM(B4:B5)
```

**First Quarter Sales and Profit-7**

## Lesson 2-13: Create functions using Formula AutoComplete

- 1 Open *First Quarter Sales and Profit-7* from your sample files folder (if it isn't already open).
- 2 Type the words **USA Sales** into cell A15 and **European Sales** into cell A16.

Notice that the text *European Sales* spills over into column B because column A isn't wide enough to contain it.

- 3 Re-size column A so that it is wide enough for the words *European Sales* to fit within the column.

You learned how to do this in: *Lesson 2-9: Re-size rows and columns*.

	A
15	USA Sales
16	European Sales

- 4 Click into cell B15 and type **=S** into the cell.

Something amazing happens:

15	USA Sales	=S
16	European Sales	
17		
18		
19		

SEARCH

SEC

SECH

SECOND

A list drops down showing every function in the Excel function library beginning with S. This feature is called *Formula AutoComplete* (if AutoComplete didn't display as expected see the facing-page sidebar).

You've already encountered the SUM(), AVERAGE() and MAX() functions courtesy of AutoSum.

You may be pleased (or dismayed) to know that there are over 300 functions in the Excel function library. The good news is that most untrained Excel users only ever get to understand SUM() and AVERAGE()!

When you typed =S Excel listed all functions beginning with S.

- 5 Continue typing: **=SU**.

Notice that the list now only shows functions beginning with SU and look... there's the *SUM()* function you need three down in the list.

You could simply click on it with the mouse but let's work like an Excel pro and do it with the keyboard.

- 6 Press the <Down Arrow> key twice to move the cursor over the SUM function.

The Sum function now has a tip telling you what the function does:

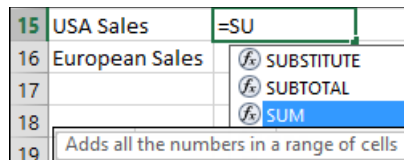
## note

### Enabling and disabling AutoComplete

As with so many other features, Microsoft allows you to turn this very useful feature off.

You'd never want to do this but you may work on a machine that has had Formula AutoComplete switched off and you need to turn it on again.

Click: File→Options→Formulas and make sure that the *Formula AutoComplete* box is checked.



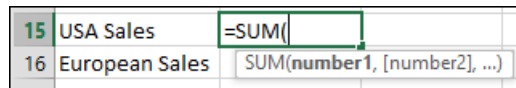
### 7 Display detailed information about the SUM() function.

The tip tells you a little about the SUM() function but to get the full story press the <F1> key while SUM is still highlighted in the dropdown list.

The Excel help system opens showing detailed help for the SUM() function.

Read the help text if you are interested and then close the help window.

Notice that Excel has now left you with only =SU in the cell. Complete the formula by typing M(



Notice that a little box has appeared beneath the function. This box displays the *Syntax* of the SUM function (see sidebar for more information).

### 8 Select the cells that you need to sum (cells B4:B5) with the mouse or keyboard.

If you want to be a real pro you should select them with the keyboard. To do this:

1. Press the <Up Arrow> key repeatedly until you reach cell B4.
2. Hold down the <Shift> key and press the <Down Arrow> key once to select cells B4:B5.

### 9 Type a closing bracket to complete the formula and then press the <Enter> key.

The total USA sales are displayed in cell B15.

### 10 Use the same technique to create a SUM() function in cell B16 to show the total European sales (cells B6:B8).

1. Click in cell B16.
2. Type = SU.
3. Press the <Down Arrow> key twice to move the cursor over the SUM function.
4. Press the <Tab> key to automatically enter the SUM function into cell B16.
5. Select the range B6:B8.
6. Type the closing bracket (this isn't actually necessary – see sidebar facing page).
7. Press the <Enter> key.

The formula should now be: =SUM(B6:B8).

### 11 Save your work as *First Quarter Sales and Profit 8*.

## note

### The syntax box

The Syntax box tells you which arguments (sometimes called parameters) the function needs.

SUM(number1, [number2], ...)

The first argument has no square brackets meaning that you can't leave it out.

The second argument (shown in square brackets) is optional.

The third argument is an ellipsis (a row of three dots). This means that you could continue with more arguments such as [number3], [number4] etc.

For such a simple function as SUM() the syntax box is hardly needed but later you'll encounter functions that require several arguments and then the syntax box will be invaluable.

15	USA Sales	64,000
16	European Sales	65,000