

## Lesson 4-1: Automatically create single-cell range names

The sample worksheet for this lesson contains prices that need to be expressed in different currencies. When you have this type of data, a separate exchange rate worksheet makes the exchange rates easy to maintain.

Here's how the exchange rates will be defined:

	A	B
3	USD/GBP	1.6155
4	USD/EUR	1.3958
5	USD/JPY	0.01053

A range name will then be automatically created for each of the values in column B. Excel will choose range names for column B based upon the values in column A. For the exchange rate in cell B3, it will automatically create the range name:

### USD\_GBP

You can then use the range name to make your formulas more readable.

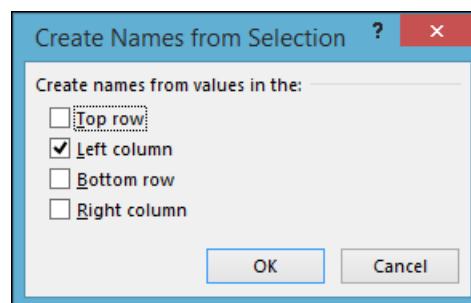
	A	B	C	D
3	Description	Year	US Dollars	British Pounds
4	Chateau Lafite	1787	160000	=C4/USD_GBP

- 1 Open *Vintage Wines-1* from your sample files folder.
- 2 Automatically create a range name for each of the exchange rates.
  1. Click the *ExchangeRates* worksheet tab.
  2. Select the range A3:B5.

	A	B
3	USD/GBP	1.6155
4	USD/EUR	1.3958
5	USD/JPY	0.01053

3. Click: Formulas → Defined Names → Create from Selection.

The *Create Names from Selection* dialog appears:



Notice that Excel has correctly guessed that the labels for each exchange rate are in the left column.

4. Click the OK button.

## note

### About names

A name can be applied to a range of cells, a single cell, a formula, a constant or a table.

When a name has been applied, it can be referred to within a formula in place of the item that it represents. For example, if the range A5:A45 was given the name *Sales*, the formulas:

=SUM(A5:A45)

And

=SUM(Sales)

Would produce exactly the same result.

## tip

You can also bring up the *Create Names from Selection* dialog using the keyboard shortcut:

<Ctrl>+<Shift>+<F3>

**Vintage Wines-1**

## note

### Syntax rules for Range Names

Range names cannot contain spaces and may only begin with a letter, an underscore character (`_`), or a backslash (`\`).

Only letters, numbers, periods, question marks and underscores can be included within a name.

Range names are not case sensitive, so the name **SALES** or **Sales** can be used to reference a range name defined as **sales**.

Range names cannot be the same as any valid cell reference.

**Good:**

Boeing737  
Boeing\_737  
\_Boeing737  
\Boeing.737

**Bad:**

737Boeing (number at start)  
Boeing 737 (contains space)  
BOE737 (same as a cell reference)

Excel uses range names for some of its own features. For this reason, you should never use any of the following range names:

Print\_Area  
Sheet\_Title  
Consolidate\_Area  
Print\_Titles

My preferred naming convention is to always spell out names in full, using mixed case with no underscores:

**Good:**

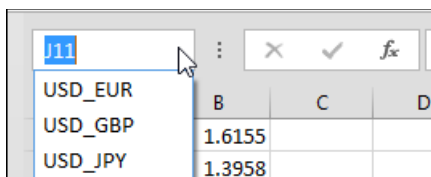
SalesTarget

**Bad:**

Sales\_Target (underscore)  
SlsTgt (abbreviation)

Nothing seems to have happened but Excel has actually created a range name for each of the values in cells B3:B5.

- Click the drop-down arrow on the right of the *Name* box to view the range names.

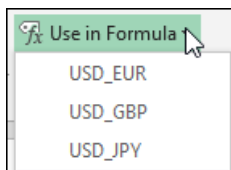


Notice that Excel hasn't used the exact names shown in column A, but has changed each forward slash to an underscore. This is because a forward slash isn't valid syntax for a range name (see sidebar for more on range name syntax).

- Use formulas containing a range name to calculate prices in Great Britain Pounds, Euros and Japanese Yen.

- Click the *Prices* worksheet tab.
- Click in cell D4.
- Type `=C4/` to begin the formula.
- Click: Formulas → Defined Names → Use In Formula.

A drop-down list appears containing all defined range names.



- Click `USD_GBP` to insert the range name.

	C	D
3	US Dollars	British Pounds
4	\$160,000.00	=C4/USD_GBP

- Press the **<Enter>** Key.
- Use the same technique to enter a formula to calculate the *Euro* and *Japanese Yen* prices in cells E4 and F4.

- AutoFill the formulas in cells D4:F4 to cells D5:F11.

	C	D	E	F
3	US Dollars	British Pounds	Euros	Japanese Yen
4	\$160,000.00	£ 99,040.54	€ 114,629.60	¥15,194,681.86
5	\$ 43,500.00	£ 26,926.65	€ 31,164.92	¥4,131,054.13

- Save your work as *Vintage Wines-2*.