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:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>USD/GBP</td>
</tr>
<tr>
<td>4</td>
<td>USD/EUR</td>
</tr>
<tr>
<td>5</td>
<td>USD/JPY</td>
</tr>
</tbody>
</table>

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.

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.
   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.
Session Four: Using Names and the Formula Auditing Tools

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

3 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).

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

1. Click the Prices worksheet tab.
2. Click in cell D4.
3. Type =C4/ to begin the formula.
4. Click Formulas→Defined Names→Use In Formula.
   A drop-down list appears containing all defined range names.
5. Click USD_GBP to insert the range name.
6. Press the <Enter> Key.
7. Use the same technique to enter a formula to calculate the Euro and Japanese Yen prices in cells E4 and F4.

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

6 Save your work as Vintage Wines-2.

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**Syntax rules for Range Names**

Range names cannot contain spaces and may only begin with a letter, an underscore (_), 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

**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)