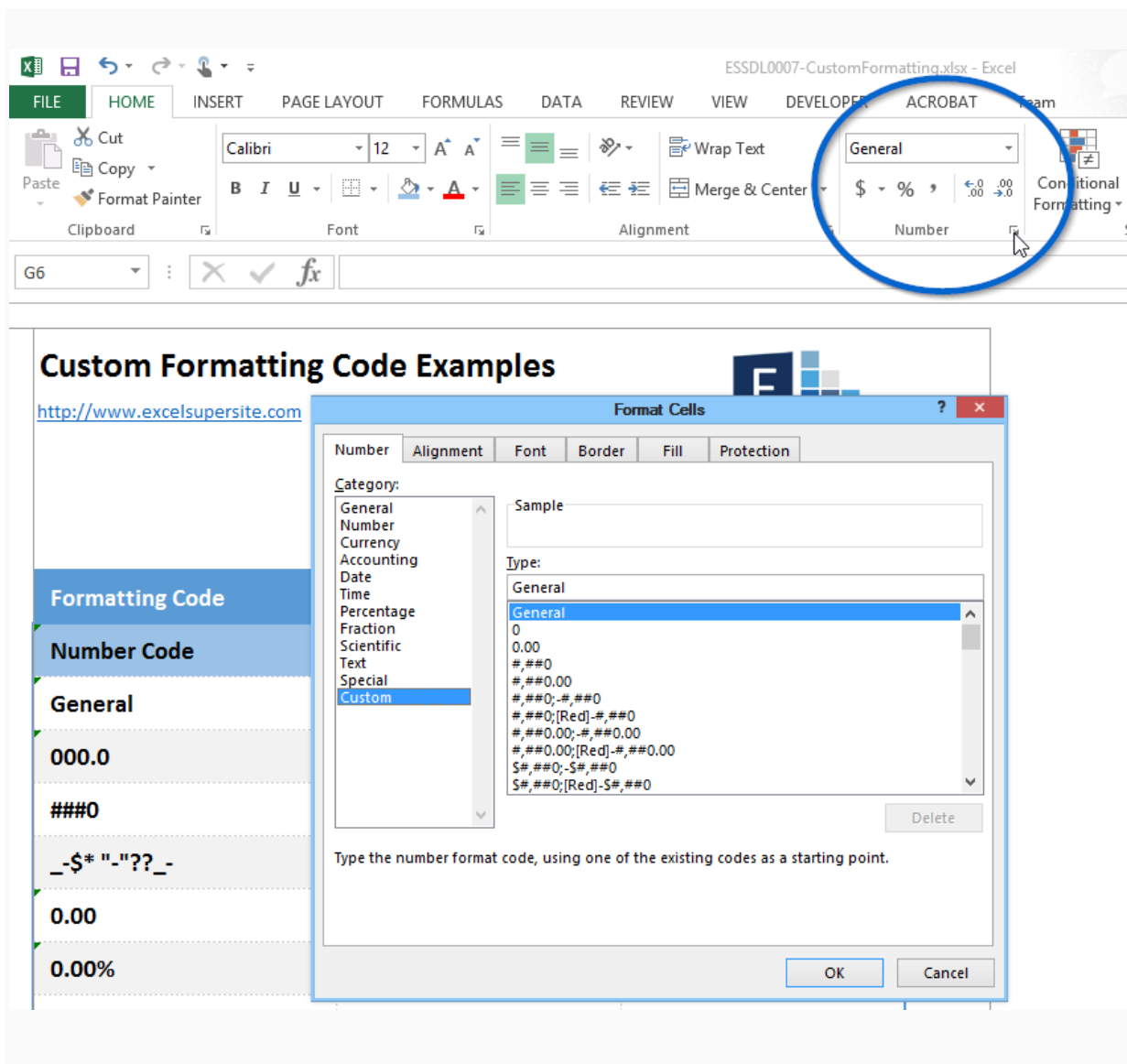


# Cracking the Mystery of Custom Number Formats in Excel

## Cracking the Mystery of Custom Number Formats in Excel.

Excel has many built-in formatting options that you can apply to your information. These range from Number, Currency, Accounting, Date, Time, Percentage, etc to name just a few. But what do you do if you cannot find the exact format you want to apply to your information? Why you create your own **custom format** that's what.

To create your own **Custom Format**, click the small arrow in the **Number** section of the **Ribbon Menu**, then on the **Number Tab** click **Custom** in the **Category:** table. Alternatively you can also click on to the cell you want to format, then right click on it and select **Format Cells...** from the dialogue that pops up.



The screenshot shows the Excel ribbon with the 'ACROBAT' tab selected. A blue circle highlights the 'Number' group on the ribbon, which includes the 'General' dropdown menu. Below the ribbon, a web browser window displays the 'Custom Formatting Code Examples' page from <http://www.excelsupersite.com>. The page lists various formatting codes under the 'Number' category, including 'General', '000.0', '###0', '\_- \$"- "??\_-', '0.00', and '0.00%'. A 'Format Cells' dialog box is open, showing the 'Number' tab with the 'General' category selected. The 'Type' list includes 'General', '0', '0.00', '##0', '##0.00', '##0;-;##0', '##0;[Red]-;##0', '##0.00;-;##0.00', '##0.00;[Red]-;##0.00', '\$;##0;-;\$;##0', and '\$;##0;[Red]-;\$;##0'. The 'Delete' button is visible next to the list. The 'OK' and 'Cancel' buttons are at the bottom of the dialog box.

To apply a custom format to a cell, it is very important to understand how cell formats are seen by Excel. Excel sees a cell's format as having four individual sections.

These are:

- positive numbers;
- negative numbers;
- zeros; and
- text.

Each of these sections are separated by a semi-colon (;). These code sections define the format for **<POSITIVE numbers> ; <NEGATIVE numbers> ; <ZERO's> ; <and TEXT>** in that order.

If you create a custom number format you do not have to specify all four sections. For example, if you create custom formats for the first two sections, the first section would be used for both positive numbers and zero values and the second section would be used for negative numbers.

If you only used one section, all number types would use that one format.

Text is only affected by custom formats when we use all four sections.

It is important to note that by applying custom formatting to the information in your cells you are only impacting what is being displayed in Excel and you are not changing the underlying value being stored in the cell.

There are many different **Formatting Codes** that can be used within sections of a **Custom Format**. The tables below show these. **The Tables are from Microsoft®**

#	Formatting Code	Description
<b>Number Code</b>		
1	<b>General</b>	General number format.
2	<b>0 (zero)</b>	Digit placeholder. This code pads the value with zeros to fill the format.
3	<b>#</b>	Digit placeholder. This code does not display extra zeros.
4	<b>?</b>	Digit placeholder. This code leaves a space for insignificant zeros but does not display them.
5	<b>. (period)</b>	Decimal number.
6	<b>%</b>	Percentage. Microsoft Excel multiplies by 100 and adds the % character.
7	<b>, (comma)</b>	Thousands separator. A comma followed by a placeholder scales the number by a thousand. Two commas followed by a placeholder scales the number by one Million.
8	<b>E+ E- e+ e-</b>	Scientific notation.

	<b>Text Code</b>	
9	<b>\$ - + / ( ) : space</b>	These characters are displayed in the number. To display any other character, enclose the character in quotation marks or precede it with a backslash.
10	<b>\character</b>	This code displays the character you specify. Note Typing !, ^, &, ', ~, {, }, =, <, or > automatically places a backslash in front of the character.
11	<b>"text"</b>	This code displays text.
12	<b>*</b>	This code repeats the next character in the format to fill the column width. Note Only one asterisk per section of a format is allowed.
13	<b>_ (underscore)</b>	This code skips the width of the next character. This code is commonly used as "_" (without the quotation marks) to leave space for a closing parenthesis in a positive number format when the negative number format includes parentheses. This allows the values to line up at the decimal point.
14	<b>@</b>	Text placeholder.

	Date Code	
15	m	Month as a number without leading zeros (1-12)
16	mm	Month as a number with leading zeros (01-12)
17	mmm	Month as an abbreviation (Jan - Dec)
18	mmmm	Unabbreviated Month (January - December)
19	d	Day without leading zeros (1-31)
20	dd	Day with leading zeros (01-31)
21	ddd	Week day as an abbreviation (Sun - Sat)
22	dddd	Unabbreviated week day (Sunday - Saturday)
23	yy	Year as a two-digit number (for example, 96)
24	yyyy	Year as a four-digit number (for example, 1996)
	Time Code	
25	h	Hours as a number without leading zeros (0-23)
26	hh	Hours as a number with leading zeros (00-23)
27	m	Minutes as a number without leading zeros (0-59)
28	mm	Minutes as a number with leading zeros (00-59)
29	s	Seconds as a number without leading zeros (0-59)
30	ss	Seconds as a number with leading zeros (00-59)
31	AM/PM am/pm	Time based on the twelve-hour clock
	Miscellaneous Code	
32	[BLACK], [BLUE], [CYAN], [GREEN], [MAGENTA], [RED], [WHITE], [YELLOW], [COLOR n]	These codes display the characters in the specified colors. Note n is a value from 1 to 56 and refers to the nth color in the color palette.
33	[Condition value]	Condition may be <, >, =, >=, <=, <> and value may be any number. Note A number format may contain up to two conditions.

Whenever you create a custom number format, this format is stored in the workbook where you created it. If you copy a value with a custom number format to another workbook, the custom format is also copied and will also be available in the new workbook.

### Download

You can download a copy of the spreadsheet I used in this article so you can explore this tip further – [Cracking the Mystery of Custom Number Formats in Excel](#).

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