Excel Database Management
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How to use AutoFill

Whether you just want to copy the same value down or need to get a series of numbers or text values, *fill handle in Excel* is the feature to help. It's an irreplaceable part of the *AutoFill option*. Fill handle is a small square that appears in the bottom-right corner when you select a cell or range.

The scheme is simple. Whenever you need to get a series of values in the adjacent cells, just click on the Excel fill handle to see a small black cross and drag it vertically or horizontally. As you release the mouse button, you will see the selected cells filled with the values depending on the pattern you specify.

One of the most popular questions is how to autofill numbers in Excel. This can also be dates, times, days of the week, months, years and so on. In addition, Excel's AutoFill will follow any pattern.
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For example, if you need to continue a sequence, just enter the first two values into the starting cell and grab the fill handle to copy the data across the specified range.

You can also auto-populate any arithmetic progression sequence where the difference between numbers is constant.
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It will even alternate sequences if the selected cells don't relate to each other numerically, like on the picture below.

And it goes without saying, that you can use the AutoFill option to copy a value across your range. I think you already know how to make the same value appear in the adjacent cells in Excel. You just need to enter this number, text, or their combination, and drag it across the cells using the fill handle.

Presume you have already heard of the features I described above. I still believe, some of them appeared new to you. So go on reading to learn even more about this popular yet under-explored tool.

All AutoFill Excel options - see the fill handle at its best

Double-click to automatically populate a large range

Suppose you have a huge database with names. You need to assign a serial number to each name. You can do it in a flash by entering the first two numbers and double-clicking the Excel
Note. This hint will only work if you have values to the left or right of the column you need to fill as Excel looks at the adjacent column to define the last cell in the range to fill. Please also keep in mind that it will populate by the longest column in case you have values to the right and to the left of the empty range you want to fill down.

Excel - Fill down a series of values that contain text

It's not a problem for the AutoFill option to copy across the values that contain both text and numerical values. Moreover, Excel is quite smart to know that there are only 4 quarters or that
some ordinal numbers need the corresponding letter suffixes.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1st</td>
<td>Quarter 1</td>
<td>Day 1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2nd</td>
<td>Quarter 2</td>
<td>Day 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3rd</td>
<td>Quarter 3</td>
<td>Day 3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4th</td>
<td>Quarter 4</td>
<td>Day 4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5th</td>
<td>Quarter 1</td>
<td>Day 5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6th</td>
<td>Quarter 2</td>
<td>Day 6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7th</td>
<td>Quarter 3</td>
<td>Day 7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8th</td>
<td>Quarter 4</td>
<td>Day 8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9th</td>
<td>Quarter 1</td>
<td>Day 9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10th</td>
<td>Quarter 2</td>
<td>Day 10</td>
<td></td>
</tr>
</tbody>
</table>

Use the AutoFill option to get repeating series

If you need a series of recurring values, you can still use the fill handle. For example, you need to repeat YES, NO, TRUE, FALSE sequence. First, enter all these values manually to give Excel a pattern. Then just grab the fill handle and drag it to the necessary cell.
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Autofilling horizontally and vertically

Most likely, you use AutoFill to populate cells down a column. However, this feature also works if you need to extend a range horizontally, leftward or upward. Just select the cells with the value(s) and drag the fill handle to the needed direction.

Autofill multiple rows or columns

The Excel Autofill can deal with data in more than one row or column. If you pick two, three or more cells and drag the fill handle they all will be populated.

Excel 2010 gives you the ability to work with an enormous amount of data. Arranging your data alphabetically, from smallest to largest or other criteria can help you find the information you’re looking for more quickly.

To Sort in Alphabetical Order:

1. Select a cell in the column you want to sort by. In this example, we will sort by Last Name.
Selecting a column to sort

2. Select the **Data** tab, and locate the **Sort and Filter** group.

3. Click the ascending command to **Sort A to Z**, or the descending command to **Sort Z to A**.

4. The data in the spreadsheet will be organized alphabetically.
Sorted by last name, from A to Z
Sorting options can also be found on the Home tab, condensed into the **Sort & Filter** command.

**To Sort in Numerical Order:**

1. Select a cell in the column you want to sort by.
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to sort

2. From the Data tab, click the ascending command \( \uparrow \) to Sort Smallest to Largest, or the descending command \( \downarrow \) to Sort Largest to Smallest.

3. The data in the spreadsheet will be organized numerically.

![Spreadsheet image]

Sorted by Extension, from smallest to largest

**Sorting Multiple Levels**

Another feature of custom sorting, sorting multiple levels allows you to identify which columns to sort by and when, giving you more control over the organization of your data. For example, you could sort by more than one cell color (such as red, then yellow, then green, to indicate different levels of priority); or, as seen here, sort students by homeroom number, then by last name.

**To Add a Level:**

1. From the Data tab, click the Sort command to open the Sort dialog box.
2. Identify the first item you want to Sort by. In this example, we will sort Homeroom # from Smallest to Largest.
3. Click Add Level to add another item.
Adding a level

4. Identify the item you want to sort by next. We will sort Last Name from A to Z.

Choosing criteria for a second level

5. Click OK.

6. The spreadsheet will be sorted so that homeroom numbers are in order, and within each homeroom, students are listed alphabetically by last name.
Copy Level will add a level by duplicating the one you have selected, and allowing you to modify the sorting criteria. This is useful if you need to sort multiple levels that share some criteria, such as the same Column, Sort On, or Order.

To Change the Sorting Priority:

1. From the Data tab, click the Sort command to open the Custom Sort dialog box.
2. Select the level you want to re-order.
3. Use the Move Up or Move Down arrows. The higher the level is on the list, the higher its priority.
Filtering Data

Filters can be applied in many different ways to improve the performance of your worksheet. You can filter text, dates, and numbers. You can even use more than one filter to further narrow down your results.

To Filter Data:

In this example, we will filter the contents of an equipment log at a technology company. We will display only the laptops and projectors that are available for check-out.

1. Begin with a worksheet that identifies each column using a header row.
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Worksheet with header row

2. Select the **Data** tab, and locate the **Sort & Filter** group.

3. Click the **Filter** command.

4. Drop-down arrows will appear in the header of each column.

5. Click the **drop-down arrow** for the column you would like to filter. In this example, we will filter the Type column to view only certain types equipment.
6. The Filter menu appears.

7. **Uncheck** the boxes next to the data you don't want to view. (You can uncheck the box next to Select All to quickly uncheck all.)

8. **Check** the boxes next to the data you do want to view. In this example, we will check Laptop and Projector to view only those types of equipment.

9. Click **OK**. All other data will be filtered, or temporarily hidden. Only laptops and projectors will be visible.
Filtering options can also be found on the Home tab, condensed into the **Sort & Filter** command.

### To Add Another Filter:

Filters are additive, meaning you can use as many as you need to narrow down your results. In this example, we will work with a spreadsheet that has already been filtered to display only laptops and projectors. Now we will display only laptops and projectors that were checked out during the month of August.

1. Click the **drop-down arrow** where you would like to add a filter. In this example, we will add a filter to the Checked Out column to view information by date.

2. **Uncheck** the boxes next to the data you don't want to view. **Check** the boxes next to the data you do want to view. In this example, we will check the box next to August.
Selecting filter data

3. Click **OK**. In addition to the original filter, the new filter will be applied. The worksheet will be narrowed down even further.

Worksheet with two filters

**To Clear a Filter:**

1. Click the **drop-down arrow** in the column from which you want to clear the filter.
2. Choose **Clear Filter From...**
Clearing a filter

3. The filter will be cleared from the column. The data that was previously hidden will be on display once again.

To instantly clear all filters from your worksheet, click the Filter command on the Data tab.

Advanced Filtering

To Filter Using Search:

Searching for data is a convenient alternative to checking or unchecking data from the list. You can search for data that contains an exact phrase, number, or date, or a simple fragment. For example, searching for the exact phrase "Saris X-10 Laptop" will display only Saris X-10 Laptops. Searching for the word "Saris," however, will display Saris X-10 Laptops, and any other Saris equipment, including projectors, digital cameras, and more.

1. From the Data tab, click the Filter command.

2. Click the drop-down arrow in the column you would like to filter. In this example, we will filter the Equipment Detail column to view only a specific brand.

3. Enter the data you would like to view in the Search box. We will enter the word "Saris" to find all Saris brand equipment. The search results will appear automatically.
4. **Check** the boxes next to the data you want to display. We will display all the data that includes the brand name *Saris*.

5. **Click OK**. The worksheet will be filtered according to your search term.
To Use Advanced Text Filters:

Advanced text filters can be used to display more specific information, such as cells that contain a certain number of characters, or data that does not contain a word you specify. In this example, we will use advanced text filters to hide any equipment that is related to cameras, including digital cameras, camcorders, and more.

1. From the Data tab, click the Filter command.
2. Click the drop-down arrow in the column of text that you would like to filter. In this example, we will filter the Equipment Detail column to view only certain kinds of equipment.
3. Choose Text Filters to open the advanced filtering menu.
4. Choose a filter. In this example, we will choose Does Not Contain to view data that does not contain the text we specify.
5. The **Custom AutoFilter** dialog appears.

6. Enter your **text** to the right of your filter. In this example, we will enter "cam" to view data that does not contain those letters. That will exclude any equipment related to cameras, such as digital cameras, camcorders, camera bags, and the digicam printer.
7. Click OK. The data will be filtered according to the filter you chose and the text you specified.

To Use Advanced Date Filters:

Advanced date filters can be used to view information from a certain time period, such as last year, next quarter, between two dates, and more. Excel automatically knows your current date and time, making this tool very easy to use. In this example, we will use advanced date filters to view only the equipment that has been checked out this week.

5. From the Data tab, click the Filter command.

6. Click the drop-down arrow in the column of dates that you would like to filter. In this example, we will filter the Checked Out column to view only a certain range of dates.

7. Choose Date Filters to open the advanced filtering menu.

8. Click a filter. We will choose This Week to view equipment that has been checked out this week.

9. The worksheet will be filtered according to the date filter you chose.
To Use Advanced Number Filters:

Advanced number filters allow you to manipulate numbered data in many different ways. For example, in a worksheet of exam grades, you could display the top and bottom numbers to view the highest and lowest scores. In this example, we will display only certain kinds of equipment based on the range of ID #s that have been assigned to them.

1. From the Data tab, click the Filter command.
2. Click the drop-down arrow in the column of numbers that you would like to filter. In this example, we will filter the ID # column to view only a certain range of ID #s.
3. Choose Number Filters to open the advanced filtering menu.
4. Choose a filter. In this example, we will choose Between to view ID #s between the numbers we specify.

Selecting a number filter

5. Enter a number to the right of each filter. In this example, we will view ID #s greater than or equal to 3000, but less than or equal to 4000. That will display ID #s in the 3000-4000 range.
6. Click **OK**. The data will be filtered according to the filter you chose and the numbers you specified.

<table>
<thead>
<tr>
<th>ID #</th>
<th>Type</th>
<th>Equipment Detail</th>
<th>Checked Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000</td>
<td>Other</td>
<td>Saris Lumina Digital Camera</td>
<td>12-May-10</td>
</tr>
<tr>
<td>3005</td>
<td>Other</td>
<td>Saris Zoom Z-60 Digital Camera</td>
<td>27-Jul-10</td>
</tr>
<tr>
<td>3070</td>
<td>Other</td>
<td>Omega PixL Digital Camcorder</td>
<td>06-Oct-10</td>
</tr>
<tr>
<td>3800</td>
<td>Other</td>
<td>U-Go Saris DigiCam Printer II</td>
<td>04-Aug-10</td>
</tr>
<tr>
<td>3900</td>
<td>Other</td>
<td>U-Go Saris Label Maker</td>
<td>13-Jun-10</td>
</tr>
</tbody>
</table>