

# CSCI-1102: Introduction to Computing

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## Microsoft Excel 2: Filtering Data

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February 10, 2019

# Filtering Introduction

- ▶ If your worksheet contains a lot of content, it can be difficult to find information quickly.
- ▶ **Filters** can be used to **narrow down** the data in your worksheet, allowing you to view only the information you need.

# To filter data

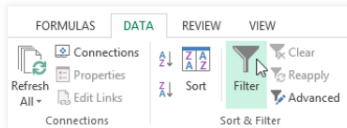
- ▶ In our example, we'll apply a filter to an equipment log worksheet to display only the **laptops** and **projectors** that are available for checkout.

- 1 In order for filtering to work correctly, your worksheet should include a **header row**, which is used to identify the name of each column. In our example, our worksheet is organized into different columns identified by the header cells in row 1: **ID#**, **Type**, **Equipment Detail**, and so on.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
2	3000	Camera	Saris Lumina Digital Camera	12-May-13	15-May-13	Shannon Nguyen
3	3005	Camera	Saris Zoom Z-60 Digital Camera	27-Jul-13	06-Aug-13	Sela Shepard
4	3070	Camera	Omega PixL Digital Camcorder	06-Oct-13		Min Seung
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	16-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta

# To filter data

- 2 Select the **Data** tab, then click the **Filter** command.



- 3 A **drop-down arrow**



will appear in the header cell for each column.

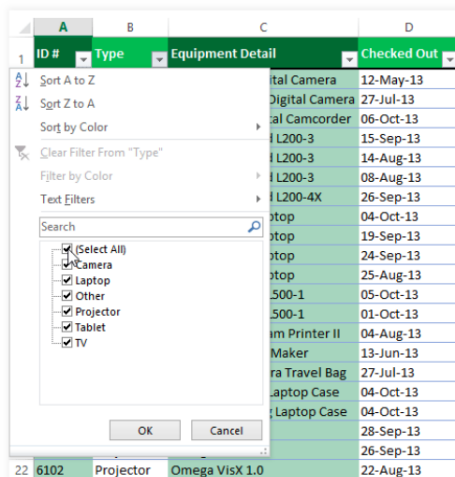
- 4 Click the **drop-down arrow** for the column you want to filter. In our example, we will filter column **B** to view only certain types of equipment.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
2	3000	Camera	Saris Lumina Digital Camera	12-May-13	15-May-13	Shannon Nguyen
3	3005	Camera	Omega Z-60 Digital Camera	27-Jul-13	06-Aug-13	Sela Shepard
4	3070	Camera	Omega PXL Digital Camcorder	06-Oct-13		Min Seung
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	16-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta

# To filter data

5 The **Filter** menu will appear.

6 **Uncheck** the box next to **Select All** to quickly deselect all data.



## To filter data

- 7** **Check** the boxes next to the data you want to filter, then click **OK**. In this example, we will check **Laptop** and **Tablet** to view only those types of equipment.

Check only the data you want to view, then click OK

# To filter data

- 8 The data will be **filtered**, temporarily hiding any content that doesn't match the criteria. In our example, only laptops and tablets are visible.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	16-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
27	1012	Tablet	Saris SlimTab Pro	29-Sep-13		August Zorn
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# To apply multiple filters

- ▶ Filters are **cumulative**, which means you can apply **multiple filters** to help narrow down your results.
- ▶ In this example, we've already filtered our worksheet to show laptops and projectors, and we'd like to narrow it down further to only show laptops and projectors that were checked out in **August**.

1 Click the **drop-down arrow** for the column you want to filter. In this example, we will add a filter to column **D** to view information by date.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	14-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
27	1012	Tablet	Saris SlimTab Pro	29-Sep-13		August Zorn
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# To apply multiple filters

2 The **Filter** menu will appear.

3 **Check** or **uncheck** the boxes depending on the data you want to filter, then click **OK**. In our example, we'll uncheck everything except for **August**.

The screenshot shows an Excel spreadsheet with columns A through F. The 'Checked Out' column (D) has a filter menu open. The menu includes options for sorting, clearing filters, and filtering by color. A date filter is applied, showing a tree view for the year 2013 with 'August' checked and 'September' and 'October' unchecked. The 'OK' button is highlighted.

	A	B	C	D	E	F
	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
5	1021	Laptop	15" S		01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" S		16-Aug-13	Hank Sorenson
7	1023	Laptop	15" S		15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" S		04-Oct-13	Min Seung
9	1031	Laptop	17" S			Nick Ortiz
10	1032	Laptop	17" S			Stanley Geyer
11	1033	Laptop	17" S		26-Sep-13	George D'Agosta
12	1034	Laptop	17" S		27-Aug-13	Jay Peralta
26	1011	Tablet	10" S			Jay Peralta
27	1012	Tablet	10" S			August Zorn

# To apply multiple filters

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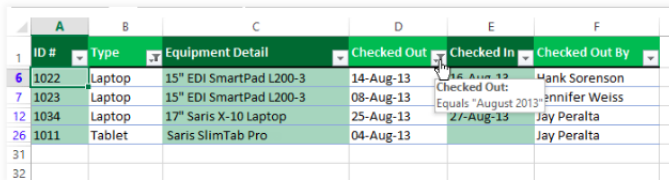
The new filter will be applied. In our example, the worksheet is now filtered to show only laptops and tablets that were checked out in August.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	16-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
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# To clear a filter

- ▶ After applying a filter, you may want to remove – or **clear** – it from your worksheet so you'll be able to filter content in different ways.

- 1 Click the **drop-down arrow** for the filter you want to clear. In our example, we'll clear the filter in column **D**.



	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	14-Aug-13	Mark Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	08-Aug-13	Jennifer Weiss
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
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- 2 The **Filter** menu will appear.

# To clear a filter

- 3 Choose **Clear Filter From [COLUMN NAME]** from the Filter menu. In our example, we'll select **Clear Filter From "Checked Out"**.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F
	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
6	1022	Laptop	15"		16-Aug-13	Hank Sorenson
7	1023	Laptop	15"		15-Aug-13	Jennifer Weiss
12	1034	Laptop	17"		27-Aug-13	Jay Peralta
26	1011	Tablet	10"			Jay Peralta

The 'Filter' menu is open over the 'Checked Out' column. The menu options are:

- Sort Oldest to Newest
- Sort Newest to Oldest
- Sort by Color
- Clear Filter From "Checked Out"
- Filter by Color
- Date Filters
- Search (All)
- (Select All)
- 2013
  - ☒ August
  - ☐ September
  - ☐ October

The 'Clear Filter From "Checked Out"' option is highlighted by the mouse.

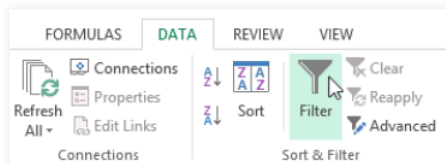
# To clear a filter

- 4 The filter will be cleared from the column. The previously hidden data will be displayed.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	15-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
27	1012	Tablet	Saris SlimTab Pro	29-Sep-13		August Zorn
31						
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# To remove all filters

-  To remove all filters from your worksheet, click the **Filter** command on the **Data** tab.



# Advanced filtering

- ▶ If you need to filter for something specific, basic filtering may not give you enough options.
- ▶ Fortunately, Excel includes many advanced filtering tools, including **search** which can narrow your results to help find exactly what you need.

## To filter with search

- Excel allows you to **search** for data that contains an exact phrase, number, date, and more. In our example, we'll use this feature to show only Saris brand products in our equipment log.

- 1 Select the **Data** tab, then click the **Filter** command. A **drop-down arrow** will appear in the header cell for each column. Note: If you've already added filters to your worksheet, you can skip this step.
- 2 Click the **drop-down arrow** for the column you want to filter. In our example, we'll filter column **C**.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
2	3000	Camera	Saris Lumina Digital Camera	12-May-13	15-May-13	Shannon Nguyen
3	3005	Camera	Saris Zoom Z-60 Digital Camera	06-Aug-13	06-Aug-13	Sela Shepard
4	3070	Camera	Omega PiXL Digital Camcorder	08-Oct-13		Min Seung
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-13	01-Oct-13	Sofie Ragnar
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-13	16-Aug-13	Hank Sorenson
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-13	15-Aug-13	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-13	04-Oct-13	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer



# To filter with search

- 3 The **Filter** menu will appear. Enter a **search term** into the **search box**. Search results will appear automatically below the **Text Filters** field as you type. In our example, we'll type **saris** to find all Saris brand equipment.
- 4 When you're done, click **OK**.

The screenshot shows an Excel spreadsheet with columns A through F. The 'Filter' menu is open over column B, which is labeled 'Type'. The 'Text Filters' section is active, and the search term 'saris' has been entered. Below the search box, a list of search results is displayed, including '17" Saris X-10 Laptop', 'Saris Lumina Digital Camera', 'Saris Lux T-80', 'Saris Lux T-81 Lite', 'Saris SlimTab Pro', 'Saris Zoom Z-60 Digital Camera', 'U-Go Saris DigiCam Printer II', and 'U-Go Saris Label Maker'. The 'OK' button is highlighted with a mouse cursor. An orange callout box with the text 'Enter a search term, then click OK' has two arrows: one pointing to the search box containing 'saris' and another pointing to the 'OK' button.

ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
3000			12-May-13	15-May-13	Shannon Nguyen
3005			27-Jul-13	06-Aug-13	Sela Shepard
3070			06-Oct-13		Min Seung
1021			15-Sep-13	01-Oct-13	Sofie Ragnar
1022			14-Aug-13	16-Aug-13	Hank Sorenson
1023			08-Aug-13	15-Aug-13	Jennifer Weiss
1025					Min Seung
1031					Nick Ortiz
1032					Stanley Geyer
1033					George D'Agosta
1034			25-Aug-13	27-Aug-13	Jay Peralta
2050			05-Oct-13	06-Oct-13	Anthony Liddell
2051			01-Oct-13	05-Oct-13	Sofie Ragnar
3800			04-Aug-13	05-Aug-13	Hank Sorenson
3900			13-Jun-13	20-Jun-13	Clint Gosse
4800			27-Jul-13	06-Aug-13	Sela Shepard
4900			04-Oct-13		Jay Peralta
4905			04-Oct-13		Nick Ortiz
6100			28-Sep-13	01-Oct-13	Win Armitage
6101			26-Sep-13	27-Sep-13	Michael Earley
6102	Projector	Omega VisX 1.0	22-Aug-13	23-Aug-13	Jamila Kyle

# To filter with search

- 5 The worksheet will be **filtered** according to your search term. In our example, the worksheet is now filtered to show only Saris brand equipment.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
2	3000	Camera	Saris Lumina Digital Camera	12-May-13	15-May-13	Shannon Nguyen
3	3005	Camera	Saris Zoom Z-60 Digital Camera	27-Jul-13	06-Aug-13	Sela Shepard
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-13		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-13		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-13	26-Sep-13	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-13	27-Aug-13	Jay Peralta
15	3800	Other	U-Go Saris DigiCam Printer II	04-Aug-13	05-Aug-13	Hank Sorenson
16	3900	Other	U-Go Saris Label Maker	13-Jun-13	20-Jun-13	Clint Gosse
23	6200	Projector	Saris Lux T-80	01-Sep-13	04-Sep-13	Jolie Chaturvedi
24	6301	Projector	Saris Lux T-81 Lite	10-Sep-13		Marques Herndon
25	6302	Projector	Saris Lux T-81 Lite	08-Sep-13	15-Sep-13	Dean Sorenson
26	1011	Tablet	Saris SlimTab Pro	04-Aug-13		Jay Peralta
27	1012	Tablet	Saris SlimTab Pro	29-Sep-13		August Zorn
31						
32						

# Reference

<https://edu.gcfglobal.org/en/excel2013/>