How to Make a Line Graph with Phase Lines in Excel 2003 & XP

Performance Aid

Purpose

The purpose of this document is to provide you with instructions to reference as you create a line graph in Excel 2003 & XP. It will provide you with step-by-step directions that will take you through entering your data, making a graph, adding phase lines, making your graph look professional, and inserting it into a document.

Entering your data

1. Use three columns
   a. The first column is for your horizontal x-axis
      i. Write in **dates** or **sessions** here
         1. A "session" is just a fancy name for an observation period

   b. The second column is your **collected data**
      i. Place in this column your
         1. **frequency** count
         2. **time** *(for duration and latency)*
         3. **level** measurement *(make sure to give each level a number)*
            a. These can be either **totals** or **averages** per session

   c. Finally, the third column is for **phase changes**
      i. *You won't need to know this for this current assignment, but after you implement your intervention, this will come in handy. So remember it!*
      ii. *When entering in a phase change – make sure that the two cells to the left are empty*
      iii. *Also, make sure that the number that is entered in for a phase change is equal to "0"*

Enter your data in *frequency, time,* or *levels* here

Enter your *dates* or *sessions* here

If you need a phase change, make sure that the left two cells are empty, and that the value entered in this column is equal "0"

| C	D	E
1	4	
2	2	
3	7	
4	5	
5	8	
6	1	
		0
7	3	
8	6	
9	9	
10	4	

Graphing the data

Selecting the Graph

1. To graph your data – highlight the **right two** columns by:
   a. Clicking in the ***top-left cell***,
   b. Pressing and holding the ***Shift*** key on your keyboard, and
   c. Clicking in the ***bottom-right cell***

2. Now that you have the data collected, click on ***Insert*** in our menu, and select ***Chart***
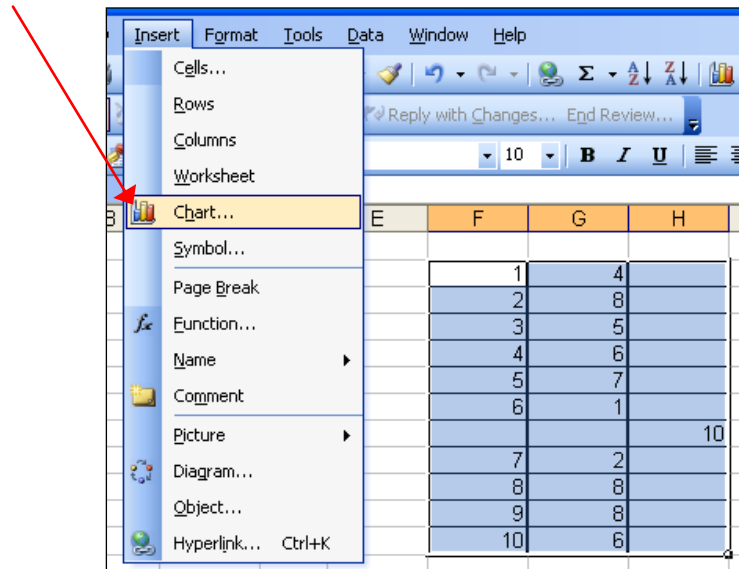

3. A pop-up window will appear. Click on ***Line*** on the left

4. Then, under *"Chart sub-type"*, choose the **top-left** type of chart and click ***Next***
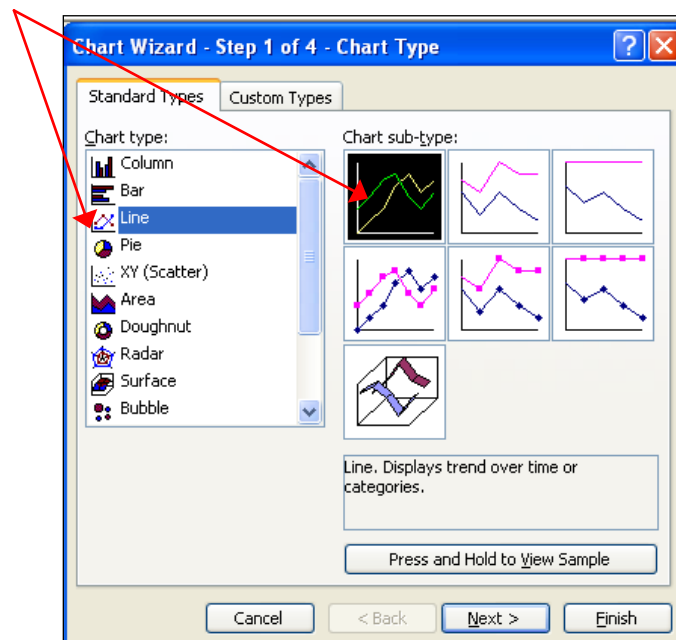
Adding your horizontal axis

1. Now, click on **Series** in the upper left

2. Then click the button next to "*Category (X) axis labels*"

3. The window will be replaced by a smaller one, **select your first column**

    a. Click on the **top cell** in that column,

    b. Press and hold the **Shift** key on your keyboard, and

    c. Click on the **bottom cell** of that column
        i. *The entire selection should have a dashed line moving around it if you did it correctly*

   d. Then Press **Enter** on your keyboard

4. Finally, click **Next**
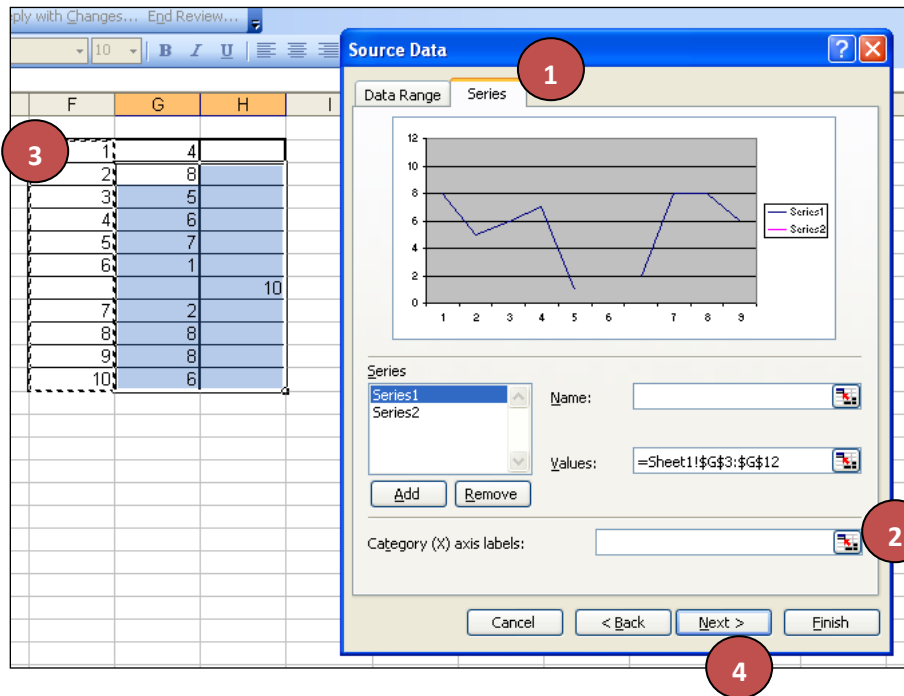
Finishing Touches

Titles

On this screen of the window, you'll add in some finishing touches

1. First, Add in your **graph title**, and **titles for your axes**

    a. Your *"Category (X) axis"* should be labeled **Sessions** or **Date**

    b. Your *Value (Y) axis"* should be labeled either **Frequency, Rate, Time,** or **Level** depending on the type of data that you collected
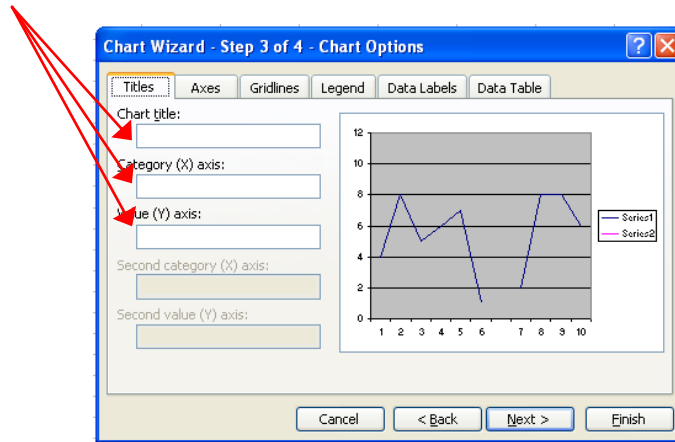
Gridlines & Legend

1. Then get rid of your gridlines by selecting the **Gridlines** tab and erasing the check next to *"Major Gridlines"*

2. Also, get rid of your legend by selecting the **Legend** tab and erasing the check next to *"Show Legend"*
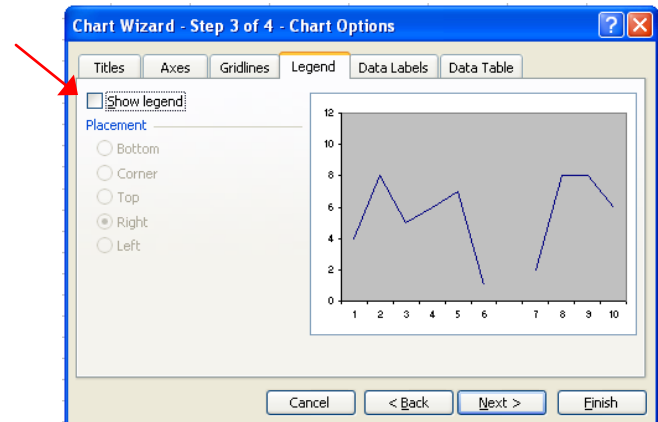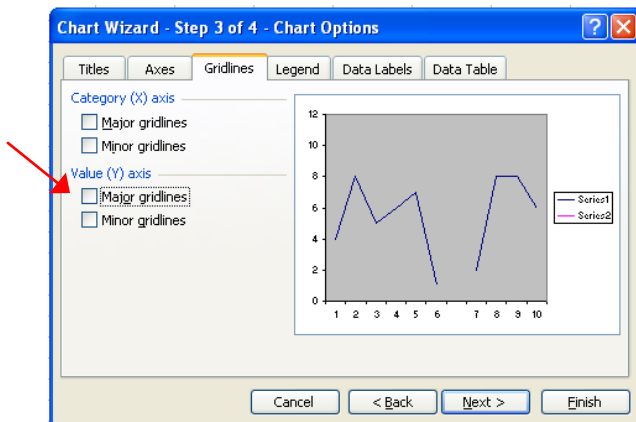
3. When you have completed all of this, press **Finish**

4. Presto! You now have a Graph!
    a. But there are a few other changes that you need to make to it…

Eliminating the background color

1. To make this graph professional you will want a white background,

    a. Click on the gray background and press the **Delete** key on your keyboard

Making phase lines

1. To make a phase line find the first area where you have a gap in your line,

    a. Along the horizontal axis, **_right-click_** in the middle of that area until you **_highlight a single point_** there and a small menu pops up that has _"Format Data Series"_ at the top

        i. _You may have to try this multiple times as the point you are looking for is invisible, so don't give up!_

        ii. _If you really can't find it, make sure that you had only entered in zeros into your third data column_

    b. Click on **_Format Data Series_**
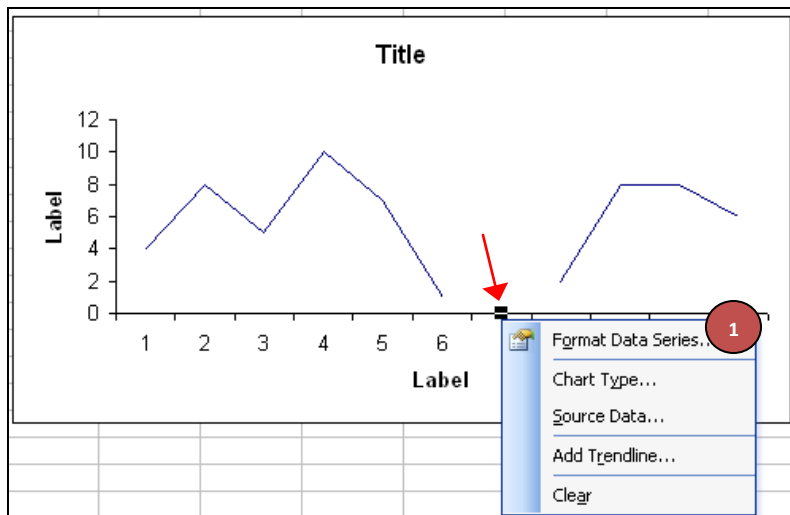
2. A pop-up window will appear, select the **_Y Error Bars_** tab,

3. Under _"Display"_, click on **_Plus_**

4. Then, next to _"Error Amount"_ enter in the highest number of your vertical axis _(for my graph it was "12")_
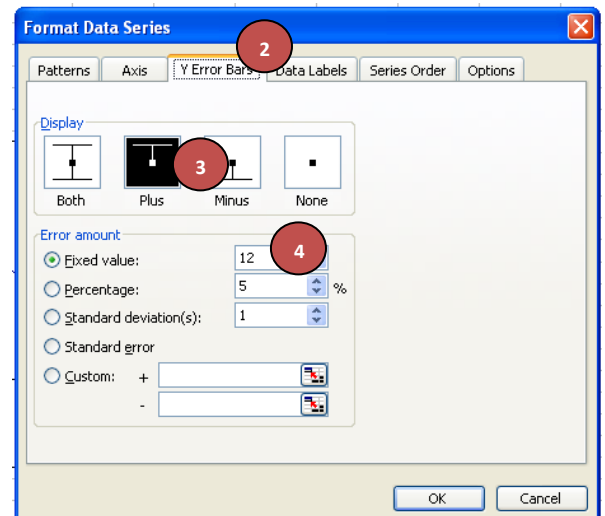
5. Now you have a line on your graph, but we need to make it dashed

    a. ***Right-click*** on the top of the line until a small menu pops up,

    b. Click on ***Format Error Bars***
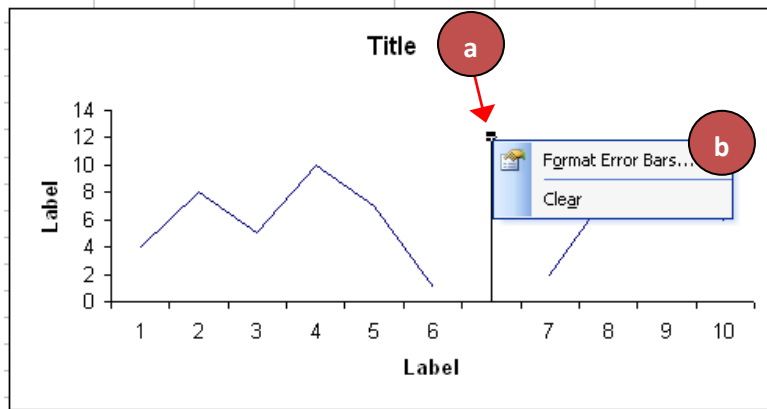
    c. Select the ***Patterns*** tab

    d. Next to *"Style"*, select the dashed option

    e. Under *"Marker"*, choose the option on the right
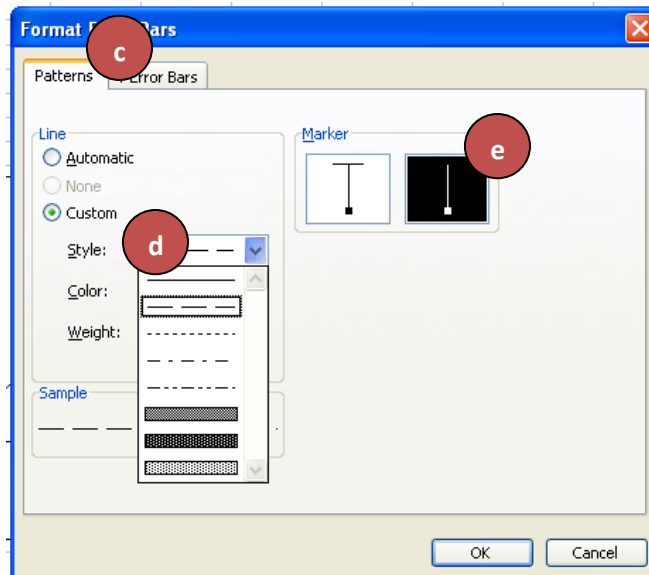
Inserting the graph into a document

1. To insert the graph into a document, simply ***right-click***,

2. select ***Copy,*** and

3. then ***Paste*** into your document