

Creating Accessible Braille Charts and Graphs with Excel

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This is a brief description of how to create a braille-accessible graph or chart from an Excel spreadsheet. ViewPlus' TSS Formatter does an excellent job of translating Excel charts and graphs, so this is a great way to prepare tactile charts and graphs for braille readers. Excel is designed for collections of data, not so much for creating xy graphs of mathematical functions, so we recommend other apps for creating tactile graphs of analytic functions $y=f(x)$.

- 1) Assuming you have an Excel data sheet, for example, one containing data of the average high temperature, low temperature, average precipitation, average snowfall for months from January to December. Let the data sheet have name "Sheet 1".
- 2) Right click on Sheet Tab name "Sheet 1", to get a context menu. Arrow down to select "Insert...", which is the first item on the menu. Press Enter, you will get an "Insert" Dialog.
- 3) Arrow right to the 2nd item "Chart", click Enter; A chart sheet containing all the data in "Sheet 1" will be inserted before the data sheet.
- 4) If in Step 3) you get an empty chart instead, you need to perform step 5).
- 5) Click anywhere inside the chart area to give it focus, then right click on the Empty Chart, you will get a context menu; arrow down to item "Select Data...", press Enter. You will get the "Select Data Source" Dialog. Then click on the Data Sheet "Sheet 1 from which you want to create the Chart. Select the cells, including column and row title, you want the chart to display, and click Enter. (or just Ctrl-A, and Enter, to select everything on the sheet).
- 6) You will get a Column Chart by default, reflecting the selected content of the Data Sheet "Sheet 1", with title set to a general "Chart Title", X-axis set to the data series name (for example, January, February...), and Y-axis to the "value" of the data series. If all data have been selected in step 5, each month has 4 columns showing the average high temperature, low temperature, average precipitation, average snowfall for the month.
- 7) Once in the Chart sheet, you can change what data you want the chart to display, and control what labels to show in the X-axis. For example, you may want to display only the high, low temperature, or just display the precipitation and snowfall. Also In this specific example, if every month's name is shown, the braille sheet after translation won't have enough space to display all the months. So you should show only "January", "March" etc.
- 8) To edit the chart, you should bring up the "Select Data Source" dialog. You first click inside the chart to focus it, then right click to bring up the context menu, from which you select "Select Data" menu items. Once you are in the "Select Data Source" dialog, you can uncheck the checkbox for the data row you don't want to display, or uncheck the checkbox for the labels you want to hide on the X-axis.
- 9) Instead of editing the "Select Data Source" dialog, you could just edit your data sheet to contain only the data/label that you want the chart to display. For example, you could delete the cells for "February", "April" etc. and then reselect the data rows/columns (or just remove the row/column you don't want to show). Your selection will be immediately reflected in the "Select Data Source" dialog, click OK to bring the new data into the chart.
- 10) If you want to change the Chart Type, also right click on the chart (while it has focus), and select "Change Chart Type..." menu item from the context menu. This will bring up the "Change Chart Type" dialog. You can Arrow down/up to the desired chart type. For example, the "Line" chart is just below Column on the list.

- 11) To convert the chart to an accessible braille version, select the chart and press "translate" in the Excel Tiger tab. You will be prompted "Do you want to translate the whole work book?" Just say no if you only want to translate the chart. If you say yes, all the sheets in the workbook will be translated.
- 12) Now press "CTRL-p" on your ViewPlus embosser to start the print process. Select paper size and other parameters just as you would for any printer.