

CREATING ACCESSIBLE SPREADSHEETS IN MICROSOFT EXCEL 2010/13 (WINDOWS) & 2011 (MAC)

GOALS

Screen readers and Excel

Users who are blind rely on software called a screen reader to interact with spreadsheets.

- Screen readers will *read the cell number* as users navigate from cell to cell (e.g., "Grand Total A 23").
- Spanned cells will be identified by a screen reader (e.g., "Budget A1 through G1"). If content spans multiple cells visually, *these cells should be merged*. To merge cells, select *Home* and the *Merge* menu.



Merged cells should not be used in tables. They can be confusing for screen reader users who expect one row and/or column header for each cell.

- A screen reader user will usually start with the first cell (A1), so this is a good place to put important information about the sheet.
- Be careful with *empty rows and columns*. While they
 may sometimes be necessary to visually separate data,
 they can cause a screen reader user to think the sheet
 has ended, even when it has not.

Images and Charts

- While images can be given alternative text in the same way as other Office tools (see other cheatsheets), they can sometimes *introduce reading order issues* and should typically *not be added to spreadsheets*.
- *Charts cannot be given alternative text.* Ensure the data used to create the chart is available and clearly structured, and preferably precedes the chart.

Other principles

- *Spell check is not automatic* as it is in Word/ PowerPoint. Make sure to spell check each sheet.
- Do not use color alone to convey information.



Table 'Headers'

If your spreadsheet includes tables, there is a special way to *add table 'header' information* that will be read by the screen reader. Tables can be identified with formula names of *Title, TitleRegion*, and others.

- These formulas *do not update when the table changes*, so be sure your table is complete first.
- This *only works for a single level of headers*. Complex tables will need to be simplified or restructured.

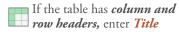
One table per sheet:

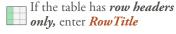
For sheets with one table only, select the cell in the *upperleft corner of the table* (not the table title).



In *Windows*, select *Formulas> Define Name* and the *New Name* dialog opens. In *Mac*, select *Insert> Name> Define* and the *Define Name* dialog opens.

In the *Name* field, replace the existing text with *one of the following 3 values*, depending on your table layout:









Don't Confuse "Column" and "Row" headers. Remember that *ColumnTitle* is for *vertical* headers and *RowTitle* is for *horizontal* headers. Also be sure to type *RowTitle* or *ColumnTitle* as one word, *without a space*.

After entering the correct value in the *Name* field, select *Ok.* Although the initial text is still visible, accessibility information has been added for a screen reader user.

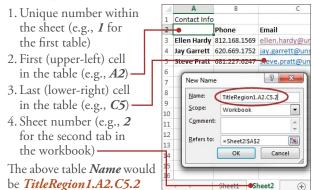
Only add a *Name* to the first cell in the table. *Do not repeat this step* for other header cells within the same table.

Multiple tables per sheet:

If a single sheet has *multiple tables*, if the table has *sortable columns*, or if you want to specify an *explicit beginning and end* of a table, you need to use *TitleRegion*.

Select the cell in the *upper-left corner of the table* (not the table title). In *Windows*, select *Formulas> Define Name* and the *New Name* dialog opens. In *Mac*, select *Insert> Name> Define* and the *Define Name* dialog opens.

In the *Name* field, enter *TitleRegion followed by the following 4 values* (no spaces, separated by periods):



Note: *RowTitleRegion* or *ColumnTitleRegion* can be used for tables that only have row or column headers.

After entering the correct value in the *Name* field, select *Ok.* This table is now accessible. *Repeat this process* for every table on the sheet, remembering to select the *upper-left corner cell* of each new table.

Deleting formula names

You may occasionally create a formula name for the wrong field or give a single cell more than one name. These unnecessary formula names should be removed.

- 1. To remove formula names in Windows, select Formulas> Name Manager. In Mac select Insert> Name> Define.
- 2. Then choose the *desired name* and select *Delete*.

