Whoa! I Didn’t Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

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Introduction

• Us
• You
• Expectations
• Outline

Purpose of Session

• **Quick** and **Easy** short-cuts/tips that we love
  – Some well known, others maybe new to you
• Some more involved techniques to save time and effort
• A glance at some ways to go beyond Excel
Useful Shortcuts

- Drag lower right corner into new cells
- Double click lines to resize columns or rows
- Ctrl+S = save; F12 = save as
- Ctrl+A = select all; Ctrl+C = copy; Ctrl+X = cut
- Ctrl+V = paste; Ctrl+Alt+V = paste special
- Ctrl+Z = undo; Ctrl+Y = redo
- Ctrl+B = bold; Ctrl+I = italic; Ctrl+U = underline;
- Ctrl+PageUp or PageDown = scroll worksheets
- F9 = calculate all worksheets in open workbooks
- Search “shortcuts” in Excel Help for “Excel shortcut and function keys” link.

Wrapping & Formatting Text

- Wrap & Merge
Wrapping & Formatting Text

• Alt + Enter

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Wrapping & Formatting Text

• Themes

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Formatting Task (Tab 1)

• Go from this:

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• To this:

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## From Output to Usable Tables

Use “Format Painter” to quickly copy and paste formats.

<table>
<thead>
<tr>
<th>Year</th>
<th>Resident</th>
<th>Non-Resident</th>
<th>Unclassified</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1,460</td>
<td>1,900</td>
<td>0</td>
<td>3,361</td>
</tr>
<tr>
<td>2009</td>
<td>3,350</td>
<td>2,545</td>
<td>0</td>
<td>5,895</td>
</tr>
<tr>
<td>2010</td>
<td>3,565</td>
<td>3,557</td>
<td>0</td>
<td>7,122</td>
</tr>
</tbody>
</table>

## Formatting Task 2 (Tab 2)

- Go from ugly output to a usable table
  - Use format painter to replicate formats
  - Link cells so you **only format once**

## Cell References

- Absolute and relative

  - A1; $A$1; A$1; $A1 – F4 to toggle between
Cell References

- Named Cells

F4 & Named Cells Task (Tab 3)

- Fill in each box with the appropriate formulas. Use F4 to toggle between references.
  - For example, in D2 type “=” then type A2 or click on A2.
    - Drag this cell down to fill D3:D12.
    - Now drag the column over to full E2:F12

Named Cell Questions?

- A named SINGLE cell acts like?
  a) A1
  b) A$1
  c) $A1
  d) $A$1
Named Cell Questions?

• Named COLUMN cells acts like?
  a) A1
  b) A$1
  c) $A1
  d) $A$1

Named Cell Questions?

• Named ROW cells acts like?
  a) A1
  b) A$1
  c) $A1
  d) $A$1

Formulas

• Common
  – Sum, Average, Count, Max, Min, IF
• Case Sensitivity
  – Upper, Lower, Proper
• Match tables
  – Hlookup, Vlookup
• Formatting error cells
  – Iferror
Gift Exchange Task (Tab 4)

• Each person gives a gift to one other
• No giving within families
• Assign randomly
  — Use formulas
    • =Rand()
    • =Max
    • =if
  — Use F9 to recalculate

<table>
<thead>
<tr>
<th>Giver</th>
<th>Erika</th>
<th>Aaron</th>
<th>Jared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blair</td>
<td>Adriel</td>
<td>Zoë</td>
</tr>
<tr>
<td></td>
<td>Mason</td>
<td>Symmes</td>
<td></td>
</tr>
</tbody>
</table>

The “magic” Spin Button

Right Click the “Quick Access Toolbar”
Select “Customize Quick Access Toolbar”
The “magic” Spin Button

Spin & Formula Task (Tab 5)
• You are given a list of prospective students with their test scores
• A colleague will invite the best to an event
• She wants to see scenarios to help her decide how many to invite
  – Create a flag next to these students (1 or 0) that indicates whether or not they should be invited.
  – The criteria for invitation should be linked to a spin button so that it can be tightened or loosened.
  – Create a total of the flags so that you can see how many invitations would be sent as the criteria are tightened and loosened.
    • At what score are the best 40 students invited?
      – 1270
    • At what score are the best 30 students invited?
      – 1310

Freeze Panes
Ugly, unformatted data!

<table>
<thead>
<tr>
<th>ID</th>
<th>HSName*</th>
<th>totsat2</th>
<th>actco</th>
<th>satv</th>
<th>satm</th>
<th>SISCnvGPA</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>375720</td>
<td>Bloomington Hi School South*</td>
<td>1340</td>
<td>30</td>
<td>560</td>
<td>690</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1355549</td>
<td>Blue Valley North High School*</td>
<td>1460</td>
<td>33</td>
<td>700</td>
<td>740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1672221</td>
<td>Blue Valley Northwest Hs*</td>
<td>1190</td>
<td>26</td>
<td>540</td>
<td>550</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1727142</td>
<td>Colby Hi School*</td>
<td>1510</td>
<td>34</td>
<td>.</td>
<td>.</td>
<td>94.71</td>
<td></td>
</tr>
<tr>
<td>1731086</td>
<td>Pembroke Hill School*</td>
<td>1260</td>
<td>28</td>
<td>600</td>
<td>620</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1868647</td>
<td>Pembroke Hill School*</td>
<td>1280</td>
<td>28</td>
<td>630</td>
<td>650</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1887131</td>
<td>Shawnee Mission East Hs*</td>
<td>1260</td>
<td>28</td>
<td>580</td>
<td>530</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1925929</td>
<td>Shawnee Mission East Hs*</td>
<td>1140</td>
<td>24</td>
<td>570</td>
<td>570</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1927027</td>
<td>Shawnee Mission Northwest Hs*</td>
<td>1300</td>
<td>29</td>
<td>520</td>
<td>680</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1968389</td>
<td>Shawnee Mission South Hs*</td>
<td>1030</td>
<td>22</td>
<td>.</td>
<td>.</td>
<td>3.65</td>
<td></td>
</tr>
</tbody>
</table>

Number of cases read: 10    Number of cases listed: 10

Txt2Col, Lead0, WriteSyntax Task (Tab 6)
- From ugly text, extract ID number
  - ID must have 10 digits, with leading 0s
- Extract Reception variable
- Write syntax to add Reception variable into an existing data set, matching on ID number

Text to Columns
Text to Columns

- Find Text to Columns tool on data ribbon
- Choose fixed width or
- Choose delimited
  - Specify character used as delimiter
- May need multiple stages to fully parse

Leading Zeros

- Pad the ID number with leading 0s, up to 10 digits
  - For example, 315700 should become 0000315700
  - Make the IDs text so they don’t revert to numbers when copied

Retaining Leading Zeros (1 way)
Make Excel write your syntax

- Concatenate formula
  - `concatenate()`
  - `=concatenate(a1,"Text between",b1,"more text",c1)`
  - `=a1&"Text between"&b1&"more text",c1`

Conditional Formatting

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>4.0</td>
<td>3.9</td>
<td>3.8</td>
<td>3.7</td>
<td>3.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Add Color to Allow for Easy Understanding

Edit the Formatting to Match your Preferences or Report

Conditional Formatting
Cond Formatting Task (Tab 7)

- Recreate the example from the previous slide in your spreadsheet.
Create a Simple Macro

Choose Shortcut (Ctrl+q)

After Recording, Check Macro

Other Copy & Pastes

Copy & Paste as Picture
Display Different Sized Tables in 1 Workbook

Allows tables of different sizes to display & print on 1 tab

Admissions Task (Tab 9)

- Copy and Paste the GPA table from the Conditional Formatting tab into Table 1.
- Create a shortcut (ctrl+w) to paste output as a picture link.
  - Paste the 2 tables from the “Paste Output” tab (tab 8) into “Column Width & Spin” tab under the appropriate titles, as linked pictures (Tables 2 & 3).
Admissions Task, part 2

• Set Admissions Standards to admit the best 20,000 applicants.
• Show color-coded standards in Table 4 with admits in green:

➢ Unhide columns K-S to begin
Steps for completing

Link a “spin button” to a named cell which can be used to adjust standards

Populate a grid with admits if the cell has a value above the standard

Create a sum to examine total admits; adjust standards until target is met.

LookUp Task (Tab 10)

- Fill in the Enrolled column of Table 1 with the output found in the table to the right (L3:L9) using a LOOKUP function.

- If the value does not exist in the output, fill the Enrolled column cell with “n/a”
LookUp Task Solution

- I named K3:L9 vlooktable
- Formula: 
  =IFERROR((VLOOKUP(B3,vlooktable,2,FALSE)),"n/a")
- Output:
  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>IN</td>
<td>12,777</td>
<td>8,895</td>
<td>5,137</td>
<td>4,692</td>
</tr>
<tr>
<td>Illinois</td>
<td>IL</td>
<td>6,333</td>
<td>5,068</td>
<td>1,257</td>
<td>970</td>
</tr>
<tr>
<td>Arkansas</td>
<td>AR</td>
<td>16</td>
<td>13</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Iowa</td>
<td>IA</td>
<td>41</td>
<td>30</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Kansas</td>
<td>KS</td>
<td>80</td>
<td>72</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Missouri</td>
<td>MO</td>
<td>461</td>
<td>369</td>
<td>81</td>
<td>67</td>
</tr>
<tr>
<td>Nebraska</td>
<td>NE</td>
<td>27</td>
<td>22</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>OK</td>
<td>25</td>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Graphing

Select data and insert graph
Add a secondary axis

Graph Task (Tab 11)
- Create this Graph from the data provided:

Sort & Filter
Define Filters

Sort & Filter Task (Tab 12)

- What are the 4 "HAState"s with more than 750 matrices in order largest to smallest?
  - IN, IL, OH, NY
- What 3 states have 176 matrices?
  - CT, MA, MN

Pivot Tables
Pivot Task (Tab 13)

- Create a Pivot Table of the data from the Sort & Filter Tab
- In this table show HA state with Apply, Admit, Deposit, and Matric for all HASTates with a totsat2>1000.
- Examine the “Grand Total” of these. How many matrics are included in your table? – 36,282

Pivot Task Solution

Importing Data
Importing Data

MapPoint - Demo

Sparklines – Microcharts Demo
Intense, Simple, Word-Sized Graphics
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