Using Excel to Leverage the Power of DataVision

Tuesday, June 4, 1:00 pm

In this hands-on session, attendees will learn how to use basic Microsoft Excel functionality to leverage the information in the Midas+ DataVision Toolpacks. Using a workbook to walk through various scenarios, participants will practice navigation and shortcuts to help simplify data analysis, attain a basic understanding of creating and modifying pivot tables, and learn how to use the VLOOKUP function to add criteria to data retrieved through use of the Toolpacks or Report Data Transfer.

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Using Excel® to Leverage the Power of DataVision

Skills for the Beginning Excel User

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22nd Annual Midas+ User Symposium

Objectives

• Understand basic navigation and shortcuts.
• Learn how to filter and sort data.
• Attain a basic understanding of how to create and modify pivot tables.
• Learn how to use VLOOKUP to add criteria to your existing data.
If you have questions or need help at any time during the class, please don’t hesitate to let us know.

Undo and Redo

- To undo and redo using the keyboard:
  - CTRL-Z
  - CTRL-Y

- To undo and redo using the mouse:
Moving Around Your Spreadsheet

• To get to the top left of your spreadsheet, click Ctrl-Home.

• To get to the bottom right of your spreadsheet, click Ctrl-End.

• To scroll right one column at a time when your cursor is in a cell, click Tab.

• To scroll right several columns at a time, click in the Navigation bar at the bottom of the screen.

Exercise #1: Redo and Undo

1. Open the Report Data Transfer Example workbook.
2. Select cells A7 to A15.
3. Delete the data in those cells.
5. Delete the data in those cells.
6. Undo the last delete using the keyboard.
7. Undo the previous delete using the mouse.
Selecting Cells

Clicking the top left cell selects the entire worksheet.

Clicking the column label selects the entire column.

Ctrl-Click and Right Click

Left click selects a single cell. Ctrl-Click selects more than one non-adjacent cell.

Right click brings up context-sensitive menus with some basic commands.
Exercise #2: Using the Mouse

1. Select a single cell in the worksheet.
2. Select an entire column of data.
3. Select the entire worksheet.
4. What are the changes that take place for each action?
5. Select patient names Bufford, Chen, Ivy, and Quiroz
6. Change the contents of those cells to bold and red.
Sizing Columns

Columns can be resized manually by clicking and dragging the edge of the column.

Columns can also be resized to fit the contents by double clicking the bi-directional arrow.

Sizing Rows

Rows can be resized manually by clicking and dragging the lower edge of the row.

Rows can be resized to fit the contents by double clicking the bi-directional arrow.

Rows can be resized by using the format menu to change the row to a designated height or to auto-fit contents on more than one line within the cell.
Exercise #3: Sizing Columns and Rows

1. Select Column A.
2. Resize the column to narrow it to the width of the header in cell A6.
3. Without dragging, resize the column to fit the contents of cell A2.
4. Using only your mouse, resize Row 6 to a height of 30.00.
5. Resize Row 7 to a height of 25 using a menu and your keyboard.
6. Undo your changes.

Formatting Cells

Cell contents can be reformatted by clicking on a tab and selecting the characteristic to be changed.
Exercise #4: Formatting Cells

1. Select cell O7.
2. Bring up the Format Cells window without using the top menu bar.
3. Change the format of the date to include the day of the week and spell out the month.
4. Select column D and adjust the width to 9.
5. Change the alignment to wrap text.
6. Select a cell, change the text to bold italic and draw a border around it.
7. Undo your changes.
**Exercise #5: Copying and Pasting**

1. Select cell A7.
2. Click and drag down the column to paste. What happens to the cell contents when they are pasted this way?
3. Undo and select cell A7 again.
4. Copy and paste it onto a range of cells using the menu. How is this different from what you did in step 2?
5. Undo and select cell A7 again.
6. Double-click the small square to the bottom right of the cell outline. What happens?
Pasting to Transpose Data

1. Select the header row of your spreadsheet.

   ![Header Row Example]

2. Right-click to bring up the context sensitive menu or use the menu bar or icons and choose Copy.

3. Click on the cell where you want the first data item and click Paste Special > Transpose.

Exercise #6: Paste Special

2. Right-click to copy.
3. Scroll down to Row 47.
4. Open the Paste Special window.
5. Transpose and paste the contents to cell A47.
Freezing Panes

1. To freeze headers select the cell immediately under the header row.

2. Click on the View tab and then on Freeze Panes.

   How does that change your navigation in the spreadsheet?

3. Click on the View tab and then on Unfreeze Panes.

Freezing Panes (continued)

1. To freeze row labels select the first cell immediately to the right of the row you want to freeze.

2. Click on the View tab and then on Freeze Panes.

   How is this different from the previous freeze?

3. Click on the View tab and then on Unfreeze Panes.
Freezing Panes (continued)

1. To freeze both headers and row labels select the cell immediately to the right of the row you want to freeze.

2. Click on the View tab and then on Freeze Panes.

How is this different from the previous freeze?

3. Click on the View tab and then on Unfreeze Panes.
Sorting Your Data

Click on any cell in the worksheet and then choose Sort & Filter.

Choose Sort A to Z or Sort Z to A to sort on a single criterion.

Choose Custom Sort to sort on multiple criteria.

Exercise #7: Sorting on a Single Criterion

1. Click on any cell in Column G.
2. Choose Sort & Filter from the top menu.
3. Arrange the data in descending order by patient age.
4. Who is the oldest patient?
Exercise #8: Sorting on Multiple Criteria

1. Click on any cell in the worksheet.
2. Choose Sort & Filter from the top menu.
3. Arrange the data in ascending order by Start Date and then by Admitting Source.
4. Which patient is now in Row 7?

Filtering Your Data

Click on any cell in the header row, click on Sort & Filter and then select Filter.

Click the drop-down arrow. Then uncheck the box next to (Select All) and click the checkbox(es) next to what you want to view.
Exercise #9: Filtering

1. Set the worksheet to filter on the values in row 6.
2. Filter on Start Date.
3. How many patients were admitted on June 28, 2012?
4. What is the age of the youngest patient admitted in July?

Creating a Simple Pivot Table

1. Click in any cell in the spreadsheet that contains data.
2. Click on the Insert tab and choose Pivot Table.
3. The cells with data are selected and the range appears in the Table/Range field.
4. Click OK.
Creating a Simple Pivot Table (continued)

5. A new worksheet opens up in your workbook, with a holding place for the pivot table, and a field list to use in selecting your criteria.

6. Click and drag items from the field list and place them under Report Filter, Column Labels, Row Labels, and/or Values to build your pivot table.
Creating a Simple Pivot Table (continued)

7. Using Account Number as the value and Admitting Status as the row returns a simple pivot table that counts the number of CHF patients in each admit status category.

Drilling Down on Pivot Table Data

Double-clicking on any cell in the pivot table opens a new worksheet with patient level data.
Grouping Data

Grouping your data allows you to summarize it into more meaningful categories. The example below shows a pivot table of the LOS for each CHF encounter.

TIP: You can change the default labels to make them more meaningful.

1. To look at all encounters with LOS less than 7 days as a single group, click and drag to select all charges that qualify.

2. Right-click on the highlighted area and select Group from the context-sensitive menu.
Grouping Data (continued)

3. You should now see a new row displaying a minus sign and Group1 in bold with all of the LOS values you selected underneath.

4. Click the minus sign. The values are collapsed and the – changes to a +.

5. Change the label from Group1 to LOS <7 Days.

6. Repeat this process for any additional values you want to group.

Exercise #10: Building a Simple Pivot Table

1. Build a pivot table in a new worksheet that shows patients by age.

2. Group the results by age <45, 45-54, 55-64, 65-74, 75-84, and 85+.

3. How many patients are 65-74?
Modifying Pivot Tables

1. Open the pivot table you created earlier showing CHF encounters by Admitting Status.

2. To look at the encounters by Admitting Location instead of Admitting Status, drag Admitting Status out of the Row Labels area and drag in Admitting Loc.

3. Drag Admitting Status to the Column Labels area to view the data by both of these criteria.

Adding a Report Filter to a Pivot Table

1. Open the DataVision Report Toolpack example spreadsheet.

2. On the Top DRG tab, click inside the pivot table to expose the field list. If it does not display, click on Options and then Field List on the menu bar (You can also right-click inside the pivot table to bring up the context sensitive menu.)
Adding a Report Filter (continued)

3. Click and drag Admitting Status to the Report Filter area. A window appears, notifying you that adding this filter will overwrite some cell contents.

4. Click cancel.

Adding a Report Filter (continued)

5. Add two lines above the pivot table and below the hospital name by right-clicking on the row label and choosing Insert from the menu.
Adding a Report Filter  
(continued)

6. Now when you click and drag Admitting Status to the Report Filter area, no cell contents will be overwritten.

![Image of spreadsheet showing Admitting Status and count of DRG]

Adding a Report Filter  
(continued)

7. Use the drop down arrow next to the report filter to view your data by a single Admitting Status or by All.

![Image of drop down menu with Admitting Status options]
Exercise #11: Modifying Pivot Tables

1. Open the Report Toolpack Example.
2. Go to the Top Principal Procedures tab.
3. Add a report filter of PROC1 Provider Name.
4. Make the necessary accommodation to add the report filter.
5. How many patients had a Principal Procedure of Thoracentesis performed by Dr. Ember?
6. Add APR-DRG Mortality Risk as a column in the pivot table. How many patients with a mortality risk of 3 had no principal procedure?
7. Who was the oldest patient who had thoracentesis as a principal procedure? How did you find this out?
Using VLOOKUP

The VLOOKUP function allows you to add additional data to your spreadsheets and pivot tables by means of an Excel formula.

We are going to add the practice group for each of our Attending Physicians to our raw data so we can add that to our pivot table.

1. On the Excel II Data worksheet, scroll over and add a blank column to the right of Column AI. Enter the heading Practice Group.

3. Enter the formula as follows:
   \[=\text{VLOOKUP}(\text{AI7}, '\text{Physician Lookup}'!$A$1:$B$71, 2)\]
4. Copy the formula down to the last row of data.

   **TIP:** You must enter the range as an absolute reference ($) in order for the formula to copy correctly.

5. You can now use this data in a pivot table after refreshing the field list.
Exercise #12: Using VLOOKUP Results to Modify a Pivot Table

1. Create a new Pivot Table that shows LOS as the rows and Practice Group as the columns.
2. Change the LOS values from count to average.
3. Which practice group has the longest ALOS for this population?

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Thank you for attending.

Questions?

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