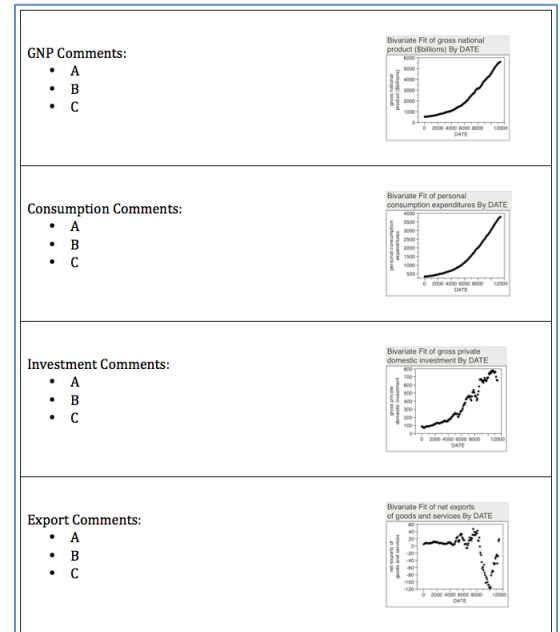


How to build a JMP report template.

By saving JMP reports as graphics files, you can build a report template, and easily refresh it whenever you need to. In this step-by-step example, we show how to create a report template in Microsoft Word, but the method used here applies to any Microsoft Office product, and likely many other products. It is also a great method for placing JMP output on a webpage.

Consider the case where we have to present analysis results at a recurring meeting. While the data changes from week to week, the analysis we perform and the type of graphs we present do not.

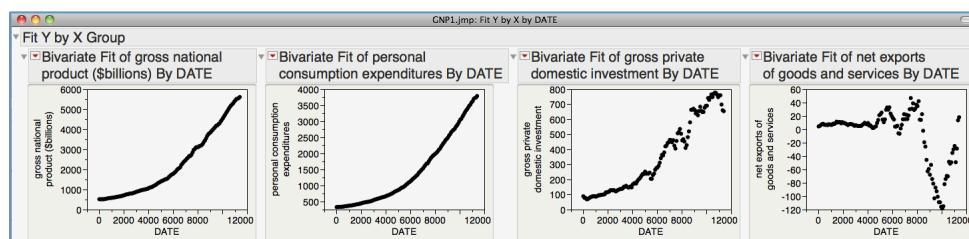
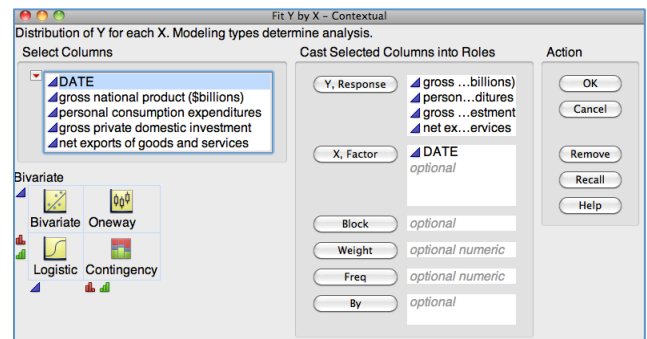
At right is an example of a typical report. Our goal is to be able to open this document at any time, and have it automatically import the most recently created graphs from JMP. This way, we only have to modify the comments in each section to get the document ready for the weekly meeting.



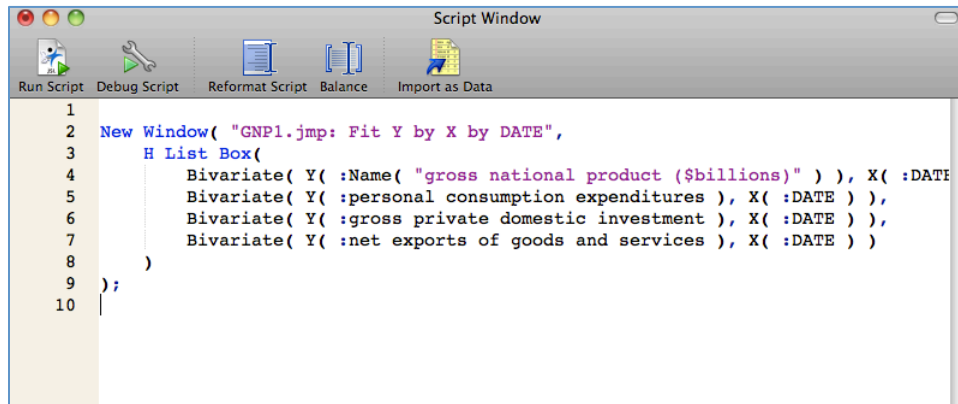
First, we need to script the creation and saving of the graphs.

To create the graphs:

- Open the file “GNP1.jmp”.
- From the JMP menu, select Analyze >> Fit Y by X.
- Enter DATE as the X, Factor value, and enter the other 4 columns as Y, Response values.
- Click ‘OK’.



To get the script for the graphs, click on the hot-spot (red triangle) on one of the report outline boxes, then select Script >> Save Script for All Objects. This will place a copy of the script into the script window:



Next, we have to modify the script a little, so we can access and save the graphs easily.

- Place a **nw =** before the New Window function. This names the window **nw** for easy access later.

Now, we will add the following code:

- Set the folder path by entering the path where you want to save the graphics files between the quotes:

```
outpath = "/Users/brbrad/Desktop/";
```

- Next, explicitly create the file suffix ".png" if JMP is being run on Windows:

```
hs = if(hostis("Windows"), ".png", "");
```

- Finally, add the following:

```

nw[Outline Box( 1 )] << savepicture( outpath || "GNP" || hs, "png" );
nw[Outline Box( 2 )] << savepicture( outpath || "Consumption" || hs, "png" );
nw[Outline Box( 3 )] << savepicture( outpath || "Investment", "png" );
nw[Outline Box( 4 )] << savepicture( outpath || "Exports", "png" );

```

Without going into too much detail, each of these lines does the following:

- The `nw[outlinebox(i)]` points to the *i*th outline box in our output window. For more information on outline boxes and display boxes, see the JMP Scripting Guide in JMP Help >> Books.
- The `<< savepicture` message saves off the contents of the outline box using the name (and suffix, if needed) specified.
- The ".png" argument tells JMP to save the file in .png format. See JMP Help for a list of supported formats.

At this point, the script should look like this:

```
nw = New Window( "GNP.jmp: Fit Y by X by DATE",
  H List Box(
    Bivariate( Y( :Name( "gross national product ($billions)" ) ), X( :DATE ) ),
    Bivariate( Y( :personal consumption expenditures ), X( :DATE ) ),
    Bivariate( Y( :gross private domestic investment ), X( :DATE ) ),
    Bivariate( Y( :net exports of goods and services ), X( :DATE ) )
  )
);

outpath = "/Users/brbrad/Desktop/";

hs = If( Host is( "Windows" ), ".png", "" );

nw[Outline Box( 1 )] << savepicture( outpath || "GNP" || hs, "png" );
nw[Outline Box( 2 )] << savepicture( outpath || "Consumption" || hs, "png" );
nw[Outline Box( 3 )] << savepicture( outpath || "Investment", "png" );
nw[Outline Box( 4 )] << savepicture( outpath || "Exports", "png" );
```

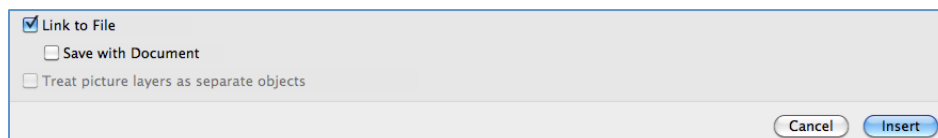
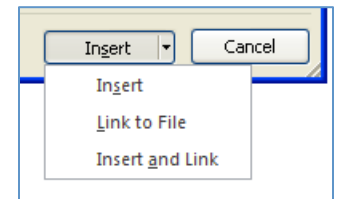
We will now insert this script into our datatable by copying and pasting:

- In the script window, select all the script text and type CTRL-C (CMD-C on a Mac).
- Click on the hotspot in the upper left of the datatable and select **New Script**.
- Click in the Name: dialog box, and type “Update Graphs”.
- Click in the Script: dialog box and then click CTRL-V (CMD-V on a Mac).
- Click “Save”, then click “OK”.

The script will appear in the upper left of the data table. We can run it whenever we want by clicking its hotspot and selecting **Run Script**. When we do, the analysis will be re-run and the .png files overwritten with the refreshed results.

The final step is to insert links to these graphics files into our document template.

- Open the file “Report_Template.docx”.
- Click to position the cursor in the upper right cell of the table.
- On Windows Machines:
 - From the toolbar, click Insert >> Picture.
 - Browse to the saved GNP.png file and **make sure when you click the insert drop-down menu that you select the “Link to File” option, not “Insert”, nor “Insert and Link”.**
- On Macs:
 - From the toolbar, click Insert >> Photo >> Picture from file...
 - Browse to the saved GNP.png file and **make sure you check only the “Link to File” checkbox** then click “Insert”.



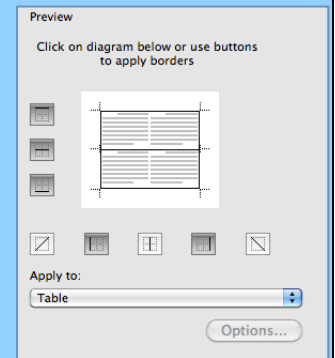
(Optional) Document formatting.

- Now, resize the picture by right-clicking on it, then selecting “Format Picture...”
 - Click the “Line” tab to add a border around the graph, if desired.
 - Click the “Size” tab to reduce the size to 30% of the original size.
 - Click the “Layout” tab to change the layout, if desired.

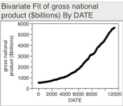
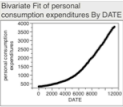
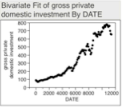
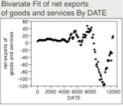
- Repeat for the other 3 files, inserting them into the right column of the table. ***Make sure that only the “Link to File” option is selected when inserting the files.***

(Optional) Document formatting.

- Mouse to the upper left of the table and click the four-arrowed icon that appears there to select the entire table. Right-click and select “Borders and Shading”.
 - Click on the middle vertical bars in the diagram. They should disappear. When the diagram looks like the one here, click ‘OK’ to accept the changes.



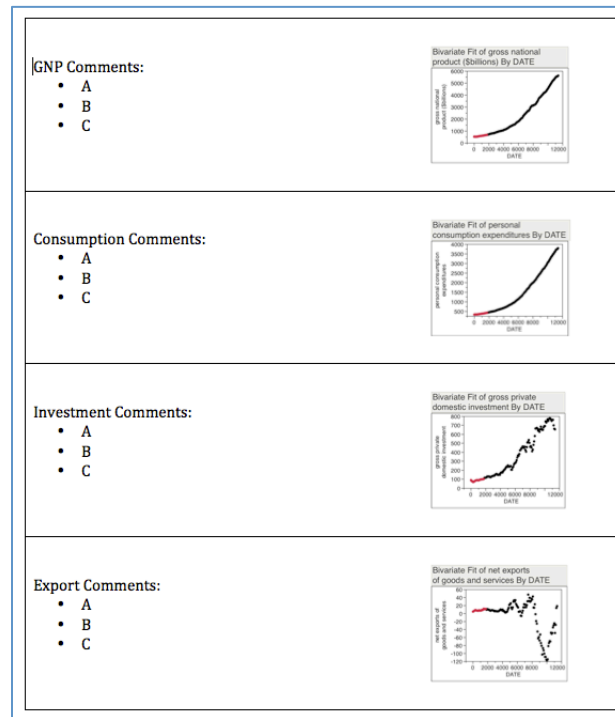
At this point, the document template should look like this:

GNP Comments: <ul style="list-style-type: none">• A• B• C	
Consumption Comments: <ul style="list-style-type: none">• A• B• C	
Investment Comments: <ul style="list-style-type: none">• A• B• C	
Export Comments: <ul style="list-style-type: none">• A• B• C	

- Note that all of the points on the graphs are black.
- Save your template file and close it.

Now we will show how easy it is to update the template when the underlying data has changed.

- Go back to the file “GNP.jmp” and select the first 20 rows. From the Rows menu select “Colors” and choose red.
- Run the script you created earlier.
- Re-open the document template. As we intended, it reflects the most recent analysis output:



From this point on, we're only 2 easy steps away from updating our report at any time:

- Run the script in the “GNP.jmp” file.
- Open our document template, “Document_Template.docx”.

Once we make the appropriate edits to the comments section, our report is ready to go.