

# PlayerPlot

## User Manual



### Developers

Team JJIS developed this application for COMS 4170, User Interface Design. The following are the team's members:

- Jia Hou (jh2352)
- Ici Li (il2117)
- Joshua Nankin (jen2117)
- Emmanuel Peters (esp2109)

### Introduction

Player Plot is a software system that enables users to compare sports teams/players using Excel datasheets and the Picasa Photo Database. Player statistics will be visually represented by photo thumbnails that allow for quick and easy interpretation.

The user imports a Microsoft Excel workbook with statistics in a specified format, and queries the Picasa Photo Database to find pictures matching the team/player names in the workbook. The user may manipulate the chart using features like zooming and photo swapping, in addition to changing the statistics used for generating the chart. Finally, the chart may be saved as an image file for use in documents or presentations.

## Summary of Tools and Layout

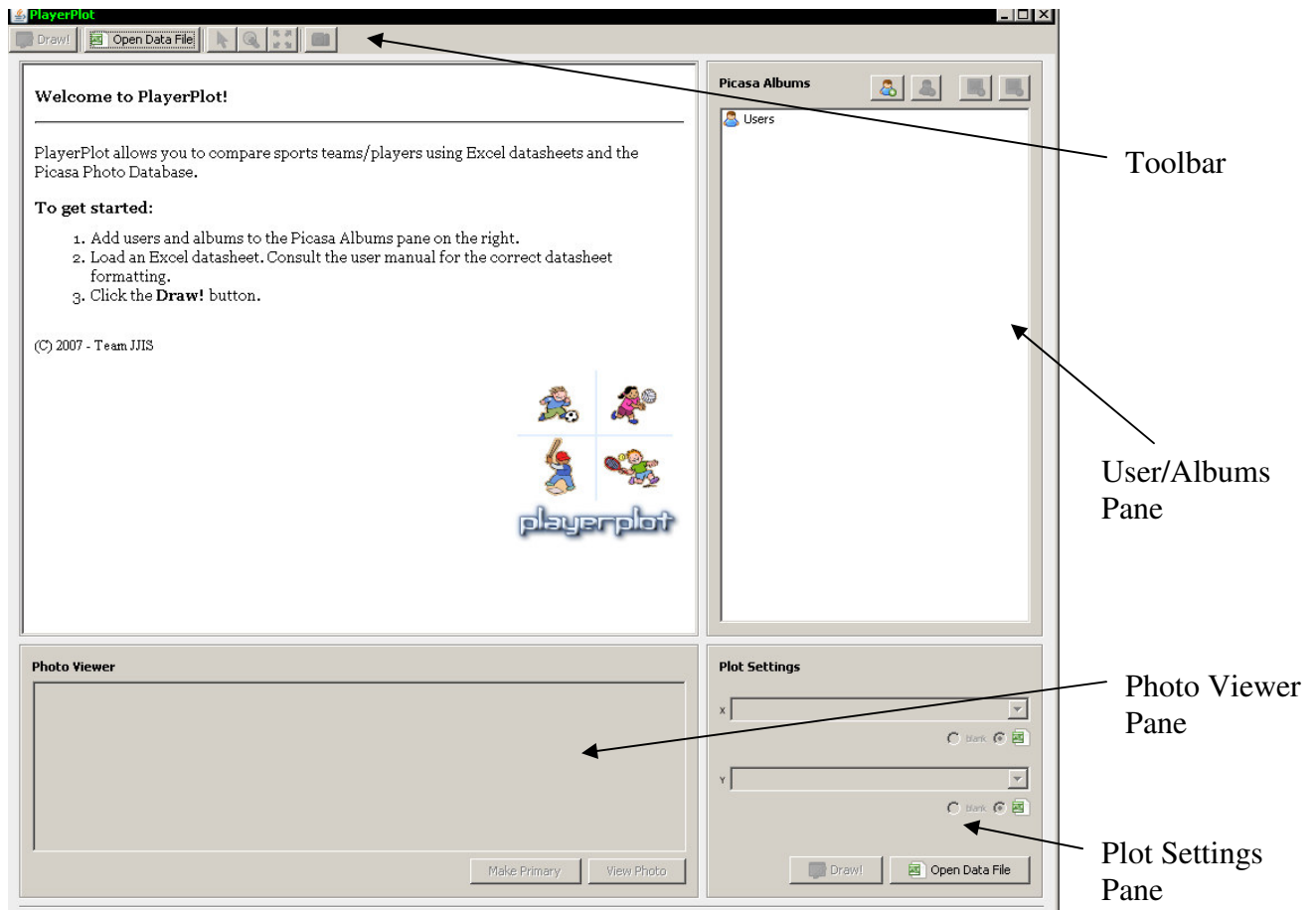


Figure 1

**User Albums Pane** – This area is used for inserting users and albums that will be examined when PlayerPlot searches for images with the tags provided in the imported workbook.

**Plot Settings** – The Plot Settings pane is used for specifying the statistics that will be used for each axes of the graph. Additionally, this pane has buttons that allow the user to import a statistics workbook and/or draw a chart.

**Toolbar** – Makes useful actions easily accessible throughout a PlayerPlot session. Buttons on the toolbar are activated and deactivated as their corresponding functions become available.

**Photo Viewer** – This pane is used to select additional pictures found on Picasa for a given player or team, to view an image in an enlarged browser window, and to make an image represent the player/team on the graph

## Drawing your first PlayerPlot chart

### 1. Create a Microsoft Excel statistics workbook.

PlayerPlot extracts information to be used in its charts from user-defined Microsoft Excel workbooks. The workbooks that can be imported must be in a certain format, as defined below:

- Cell A1 in the workbook may optionally be filled. If it is used, its contents will appear as the title of all charts generated using the workbook.
- The remaining cells in the first row specify the type of the statistic contained in the given column.
- After the first row, player/team data is specified, with the first cell of each row containing the player/team name and the remaining cells holding the statistics for that player/team.

Here is a graphical representation of the format:

<optional title>	Statistic1	Statistic2	Statistic3	Statistic4	Statistic5	...
<i>Player name</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	...
<i>Player name</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	...
<i>Player name</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	...

Here is an excerpt from the example workbook included with the application:

<i>New York Yankees Infielders</i>	Games	At Bats	Runs	Hits	Doubles
<b>Wilson Betemit</b>	121	240	33	55	12
<b>Robinson Cano</b>	160	617	93	189	41
<b>Derek Jeter</b>	156	639	102	206	39

All numbers in the workbook can be formatted as decimals or integers.

### 2. Import the workbook

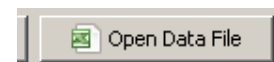


Figure 2 – The Open Data File button

Click on the “Open Data File” button in the Plot Settings pane or on the toolbar and select your workbook using the file chooser that displays.

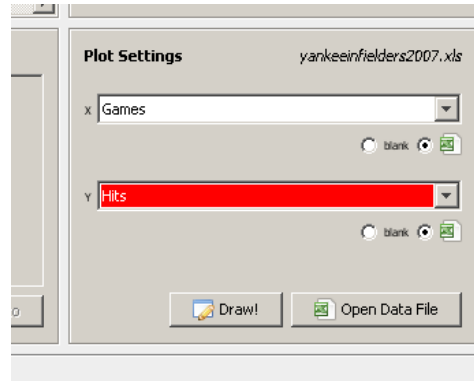


Figure 3 – The axes combo boxes

In the combo boxes for the X and Y axes, the user specifies the statistics which are to be used when placing images on the chart. The radio buttons beneath the combo boxes allow the user to specify whether an axes is enabled or is simply left blank, creating a one-dimensional horizontal or vertical graph

### 3. Input Users and Albums to be used in the Picasa Photo Database query



Figure 4 – The buttons used to add/remove users and albums

Specify the users or albums by either using the four buttons at the top of the User/Albums pane, or by right clicking inside the user tree and selecting a menu option.

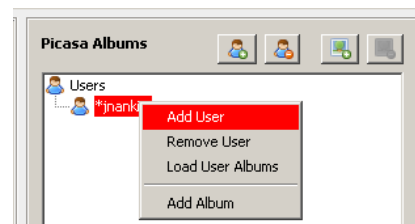


Figure 5 – Right clicking on a user

Additionally, if a user has been selected and no albums have been specified for it, you may right click on it and select “Load User Albums” to automatically display all albums available for the user in the Picasa Photo Database.

Asterisks found next to users/albums denote that the element has been newly specified and not yet used in the creation of a chart. This is useful for when determining whether one needs to redraw the graph to obtain additional photos.

#### 4. Draw the graph

The user may load the workbook and specify users in any order desired. When the application determines that it has enough information to perform a query, the “Draw!” button will activate and allow the user to draw a chart.



Figure 6 – The progress bar

While the images are downloaded from Picasa and the chart is being drawn, a progress bar will appear in the right hand corner. This will let the user know how far PlayerPlot is from completing the rendering of the chart.

After the graph has been drawn, all asterisks in the user tree will be removed. If a '?' prefixes any of the albums, it means that PlayerPlot had trouble when querying the album, signifying that the album either does not exist or contains bad data.

In the case that no image is found for a player/team specified in the workbook, a red dot will appear on the graph instead.

Finally, changing the combo boxes that specify the axes statistics without importing a new workbook or adding new users/albums allows the user to change the information space displayed on the chart and display the new axes. In this special case, a query will not be reissued to the photo database, and the chart can be redisplayed instantly.

#### 5. Manipulating the chart

Use the toolbar to change the appearance of the chart or to save it as an image file. Below is a description each toolbar button's function:



**Selection mode** – This mode allows the user to select pictures in the chart for display in the photo viewer



**Zoom mode** – Users can draw a rectangle by dragging the mouse in a rightward/downward motion and zoom in the chart on this specified area. Drawing a rectangle using a leftward/upward motion returns the chart to its default display.



**Save chart as image** – Allows the user to specify a location for a PNG image file that will contain the currently displayed chart.

## 6. Viewing additional photos and making a photo visible on the chart



Figure 7 – an image ToolTip

When hovering over an image in the graph, the user is presented with a ToolTip that summarizes the image's tag and coordinate information.

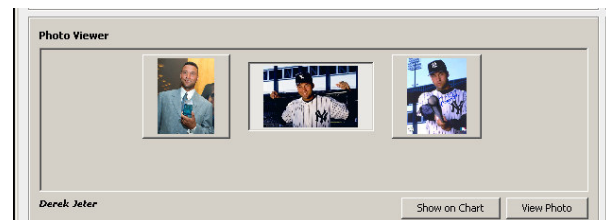


Figure 8 – the Photo Viewer pane in action

Clicking on an image will launch the Photo Viewer pane. Within this pane, the user may click on an image and launch its URL in the default browser (the “View Picture” button), or display the image in the graph to represent the corresponding player/team (the “Show on Chart” button).

## Troubleshooting

*Q: My chart is taking a long time to load and/or displays nothing. What's wrong?*

A: This may be a number of things. Sometimes it takes a while to download large files from Picasa, if they match queries specified in the input workbook. Additionally, check your Internet connection. PlayerPlot might be having problems accessing the photo database.

*Q: I'm clicking on pictures in my chart but nothing is displayed in the Photo Viewer.*

A: The Photo Viewer pane sometimes has trouble when PlayerPlot is maximized on your screen. Minimize the application and try again.