# Contents

# Ubetcha Overview

Ubetcha is a PowerShell Web application that automates the playing of Washington State lottery games. The PowerShell module, UniveralDashBoard.Community is used to generate the web server.
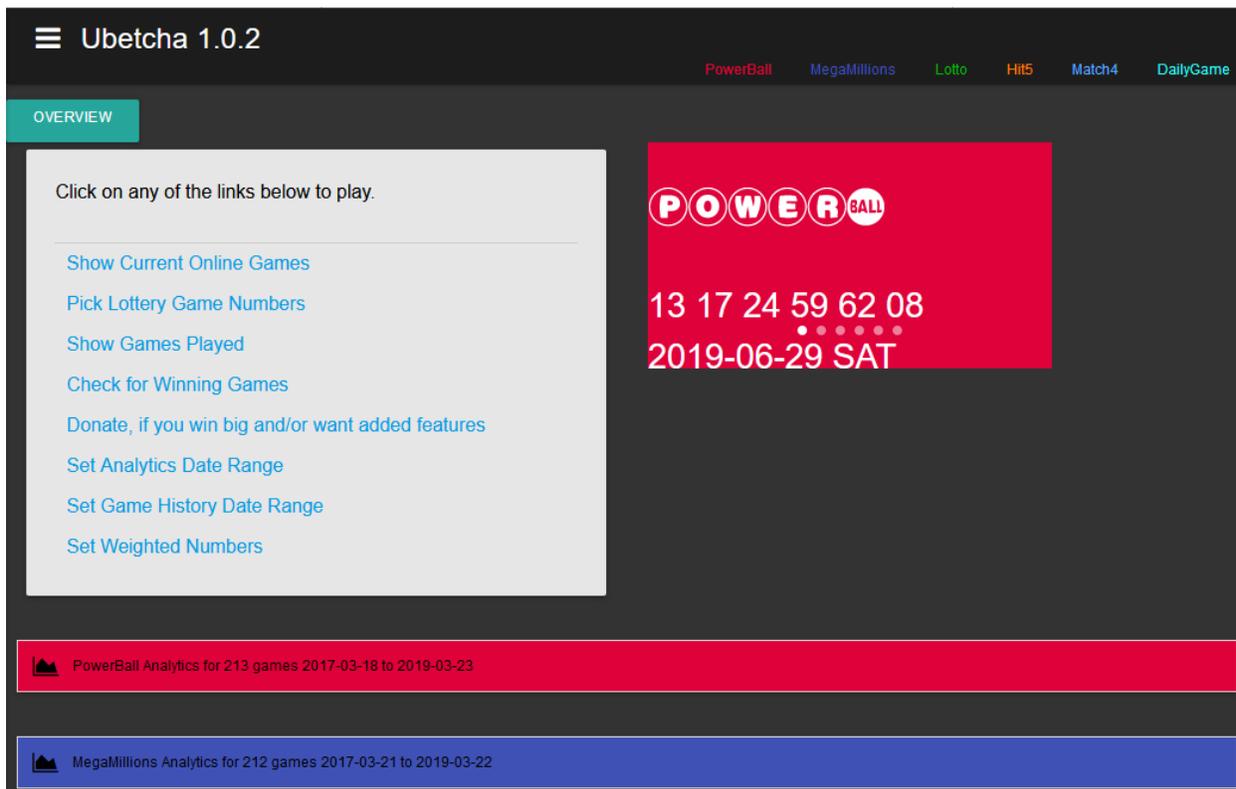


Ubetcha is available as follows.

| Version 1.0.3 | Donation Level | Download |
|---|---|---|
| ALL Features & source code | $25 or more | See below |

Make a Donation

Be sure to select 'Sending to a friend' to avoid transfer charges.  Add the reference 'Ubetcha' and your email address in the notes field, when making the donation.

You'll receive an email reply with the download link and the password. The password will change often so be sure to make a backup copy of the download.

## Release Notes

| Version | Notes |
|---|---|
| 1.0.3 | Updated to support UD version 2.6.2 & Theme change to DarkRounded. |
| 1.0.2 | Add automatic weighted number selection for all lottery games except for the |

| | |
|---|---|
| | DailyGame. |
| 1.0.1 | Initial release based on code from GitHub project JackPot |

# Installation

Ubetcha requires Windows operating system with both PowerShell and Internet Explorer enabled.  Any browser can be used to display the Ubetcha Web interface, only the HTML parsing methods of Internet Explorer are need by Ubetcha.

Copy the Ubetcha zip file to a temporary folder and unzip the contents by right clicking on the zip file and selecting **'Extract All…'**.  Be sure to extract contents to the default folder automatically selected for you.
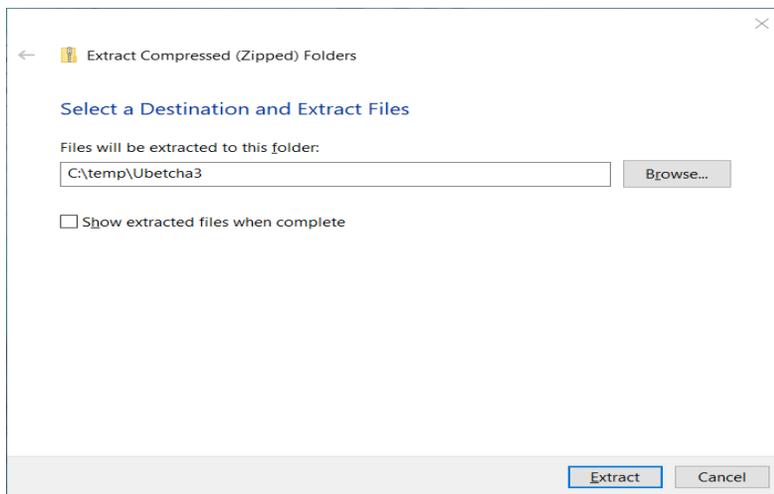


Launch the PowerShell console as Administrator.
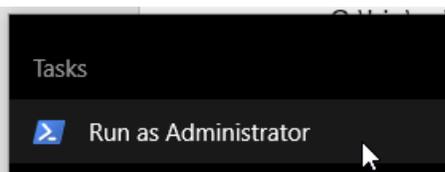


In the PowerShell console change the working folder to the path location that the zip file was extracted to and run the PowerShell script by entering this command, **.\Install-Ubetcha.ps1**

```
PS>cd c:\temp\ubetcha3
PS>ls


    Directory: C:\temp\ubetcha3


Mode                LastWriteTime         Length Name
----                -------------         ------ ----
------         2/8/2019    5:01 AM          6878 Install-Ubetcha.ps1
------         2/10/2019   8:23 AM        566508 Ubetcha3.zip


PS>.\Install-Ubetcha.ps1
************************************
* Installing Ubetcha Windows Service *
************************************

Press any key to Install or Ctrl-C to quit: _
```

The installer code will validate that all the prerequisites are satisfied and if not will attempt to install the missing components.

Depending upon the components that need to be installed, it may be necessary to restart the computer to complete the installation.

```
Validating PowerShell version is 5.1 or higher

Validating Internet Explorer is available


Installing UniversalDashBoard.Community module

Installing Ubetcha @ C:\bin\Ubetcha
Installing Ubetcha Windows service

Installing service Ubetcha...
Service Ubetcha has been successfully installed.
Creating EventLog source Ubetcha in log Application...

Ubetcha Windows Service successfully installed
```

Once the installation has completed the **Ubetcha** shortcut icon should be displayed on the desktop.

Ubetcha is a web server that runs on the your computer.

Double clicking the Ubetcha desktop icon, starts the Ubetcha Web Service and loads the default web address (http://localhost:10004) in the web browser.  The Microsofte Edge browser has issues rendering the page correctly, so I recommend using either FireFox or Chrome.

If port 10004 is in use by a different process on the computer, the port number can be changed by modifying the option file.

If Ubetcha application is blocked by a firewall when started for the first time, allow it to access the internet.  Then delete the file, C:\bin\Ubetcha\temp2.txt and restart the Ubetcha application.

To uninstall the Ubetcha DashBoard, start the PowerShell console in Administrator mode change the current path to the installed folder location.

**Uninstall Ubetcha**

cd c:\bin\Ubetcha

.\Install-Ubetcha.ps1 -uninstall

PowerBall    MegaMillions    Lotto    Hit5    Match4    DailyGame

# 1   Ubetcha Web Interface
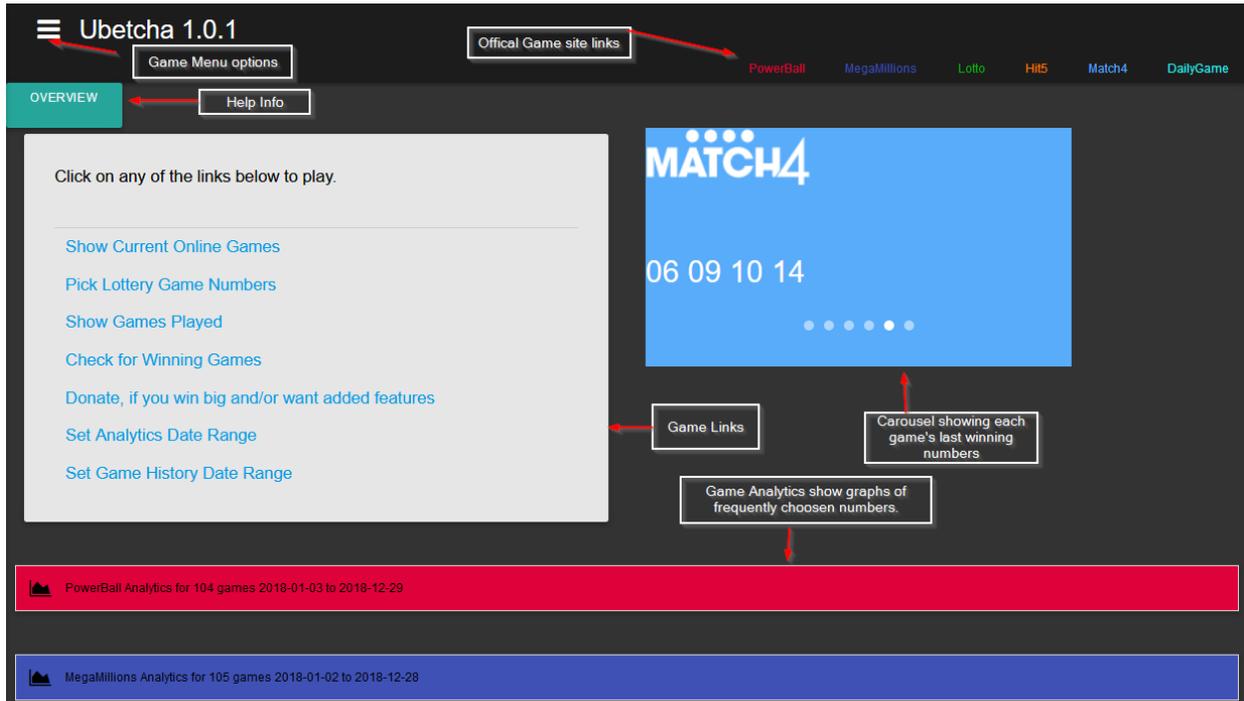


The 'Set Analytics Date Range', 'Set Game History Date Range', and 'Set Weighted Numbers' options are advanced features.

## 1.1   Show Current Online Games



Display a table of the current lottery games with their last drawing results along with the next date for the game to be played.

## 1.2   Pick Lottery Game Numbers
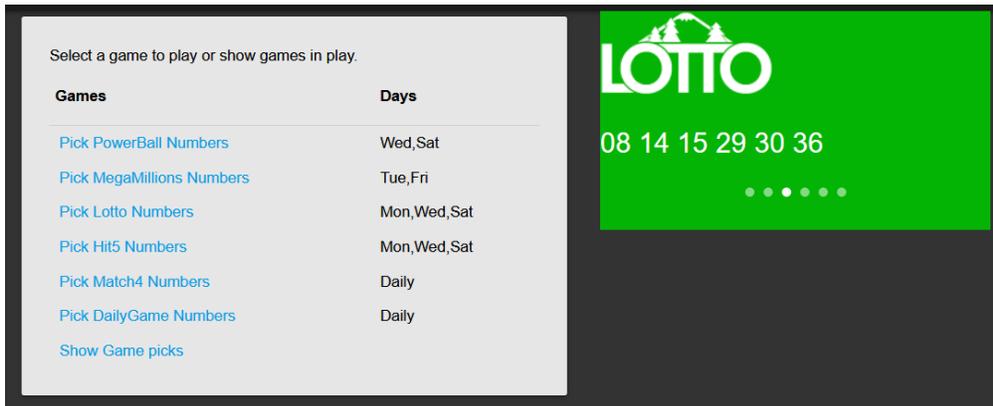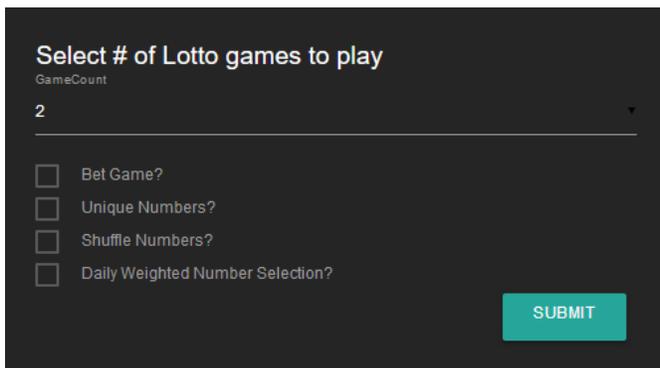
Select a game to play or show games in play.

| Games | Days |
|---|---|
| Pick PowerBall Numbers | Wed,Sat |
| Pick MegaMillions Numbers | Tue,Fri |
| Pick Lotto Numbers | Mon,Wed,Sat |
| Pick Hit5 Numbers | Mon,Wed,Sat |
| Pick Match4 Numbers | Daily |
| Pick DailyGame Numbers | Daily |
| Show Game picks | |

LOTTO

08 14 15 29 30 36

Displays a menu of lottery games and the days that they are played on.

To select numbers for lottery game to play a click on the associated link and the following fields will be displayed.

Select # of Lotto games to play

GameCount

2

☐ Bet Game?
☐ Unique Numbers?
☐ Shuffle Numbers?
☐ Daily Weighted Number Selection?

SUBMIT

In the '**GameCount**' field enter the numbers of games to be played.

Check the '**Bet Game**' check box, if you intend place a bet on the game and the dollar amount of the game will be recorded.

Check the '**PowerPlay**' check box, if you want to play that option for the game.

Both the '**Unique Numbers**', '**Shuffle Numbers**', and '**Daily Weighted Number Selection**' check boxes invoke advanced number selection features.

Checking '**Unique Numbers**' results in unique numbers being selected for each game played.

Checking '**Shuffle Numbers**' causes the game's pool of numbers being used to be randomly shuffled before selecting game numbers from the pool.

Checking '**Daily Weighted Number Selection**' selects random numbers weighted towards the frequency of past winning numbers.

Finally, click on the '**Submit**' button to generate the game numbers to play.

Current Lottery Games in Play

Filter

| Game ▲ | Date | Day | Numbers | Cost |
|---|---|---|---|---|
| DailyGame | 2019-02-02 | SAT | 6 7 9 | |
| Hit5 | 2019-02-02 | SAT | 02 04 06 19 32 | 1.00 |
| Lotto | 2019-02-02 | SAT | 02 03 04 09 25 42 | .50 |
| Lotto | 2019-02-02 | SAT | 01 18 22 27 31 36 | .50 |

After clicking the '**Submit**' button, a table of games in play will be displayed.  Click on the '**Return**' link at the bottom of the table to return the Game Selection page.

## 1.3   Show Games Played

Game History from 2018-01-01 to 2018-12-29

Filter

| Game▲ | PickDate | PickDay | Choices | Cost | WinNums | Matches | Prize | Multiplier |
|-------|----------|---------|---------|------|---------|---------|-------|------------|
| 2018-01-01 | MON | Match4 | 07 12 13 14 | | 07 15 22 24 | 1 | | NA |
| 2018-01-01 | MON | Match4 | 01 02 06 10 | | 07 15 22 24 | 0 | | NA |
| 2018-01-01 | MON | Lotto | 05 14 16 17 19 26 | .50 | 13 28 35 37 38 46 | 0 | 0 | NA |
| 2018-01-01 | MON | Lotto | 13 15 30 37 46 47 | .50 | 13 28 35 37 38 46 | 3 | 3.00 | NA |
| 2018-01-01 | MON | Hit5 | 11 13 27 34 38 | 1.00 | 05 13 26 36 37 | 1 | | NA |
| 2018-01-01 | MON | DailyGame | 2 2 9 | | 1 0 2 | 2 | | NA |
| 2018-01-02 | TUE | MegaMillions | 02 24 28 44 53 04 | 3.00 | 01 42 47 64 70 22 | 0 | 0 | x04 |
| 2018-01-02 | TUE | MegaMillions | 14 16 30 33 42 18 | 3.00 | 01 42 47 64 70 22 | 1 | 0 | x04 |
| 2018-01-02 | TUE | Match4 | 01 08 15 20 | | 03 04 11 20 | 1 | | NA |
| 2018-01-02 | TUE | DailyGame | 5 1 1 | | 6 0 4 | 0 | | NA |

NEXT

GAMES: 873 — TOTAL COST: $1540.0 — TOTAL WINNINGS: $1700

Displays the history of all games played according to the date range set by the 'Set Game History Date Range' option.

At the bottom of the table is a tally of the total games played, total cost spent on the games and the total winnings.

All of the game metrics for the year 2018 are included in the advanced version and you can see that I made about $160 dollars for that year of betting.  Another way of looking at this is I was paid $160 for betting on 873 games.  I didn't win the big one, but it didn't cost me any money to try either.

## 1.4   Check for Winning Numbers

On the day after the game's draw day, click on 'Check for Winning Games' to determine if any of the game bets are winners.

Today's Game Results

Filter

| Game▼ | PickDate | PickDay | Choices | Cost | WinNums | Matches | Prize | Multiplier |
|-------|----------|---------|---------|------|---------|---------|-------|------------|
| PowerBall | 2019-02-02 | SAT | 01 06 57 64 68 06 | 3.00 | 10 17 18 43 65 13 | 0 | | x05 |
| PowerBall | 2019-02-02 | SAT | 11 46 50 51 62 16 | 3.00 | 10 17 18 43 65 13 | 0 | | x05 |
| Match4 | 2019-02-02 | SAT | 07 11 14 21 | | 06 13 17 21 | 1 | | NA |
| Lotto | 2019-02-02 | SAT | 02 03 04 09 25 42 | .50 | 11 12 15 16 21 41 | 0 | | NA |
| Lotto | 2019-02-02 | SAT | 01 18 22 27 31 36 | .50 | 11 12 15 16 21 41 | 0 | | NA |
| Lotto | 2019-02-02 | SAT | 06 14 21 24 39 45 | .50 | 11 12 15 16 21 41 | 1 | | NA |
| Lotto | 2019-02-02 | SAT | 16 17 19 40 43 47 | .50 | 11 12 15 16 21 41 | 1 | | NA |
| Hit5 | 2019-02-02 | SAT | 02 04 06 19 32 | 1.00 | 04 06 29 36 38 | 2 | | NA |
| DailyGame | 2019-02-02 | SAT | 6 7 9 | | 7 5 6 | 2 | | NA |

Two tables are displayed.  The 'Current Lottery Game Results' show the current game results and the 'Today's Game Results' matches the played game results with the numbers drawn for the games.  The 'Matches' column shows the matching number count per game.

Click on the Official game links to determine if the game as won any money.

## 1.5   Set Analytics Date Range



Set the date range period to be displayed on the game analytic graphs showing the frequency that each game number is selected.

## 1.6   Set Game History Date Range



Set the date range period for displaying game history data.

## 1.7   Set Weighted Numbers

Generates a set of game numbers files weighted towards the numbers selected most often for each game on a day by day basis. After this process is completed, there will be seven new files created named *'Ubetcha-HotNums-<day>.csv'* for each day of the week.

When numbers are selected for a given game and the option 'Daily Weighted Number Selection?' is selected, then these files are used to selected game numbers.

The game metrics used to generate the daily weighted numbers is based on the date range set by 'Set Analytics Date Range'.
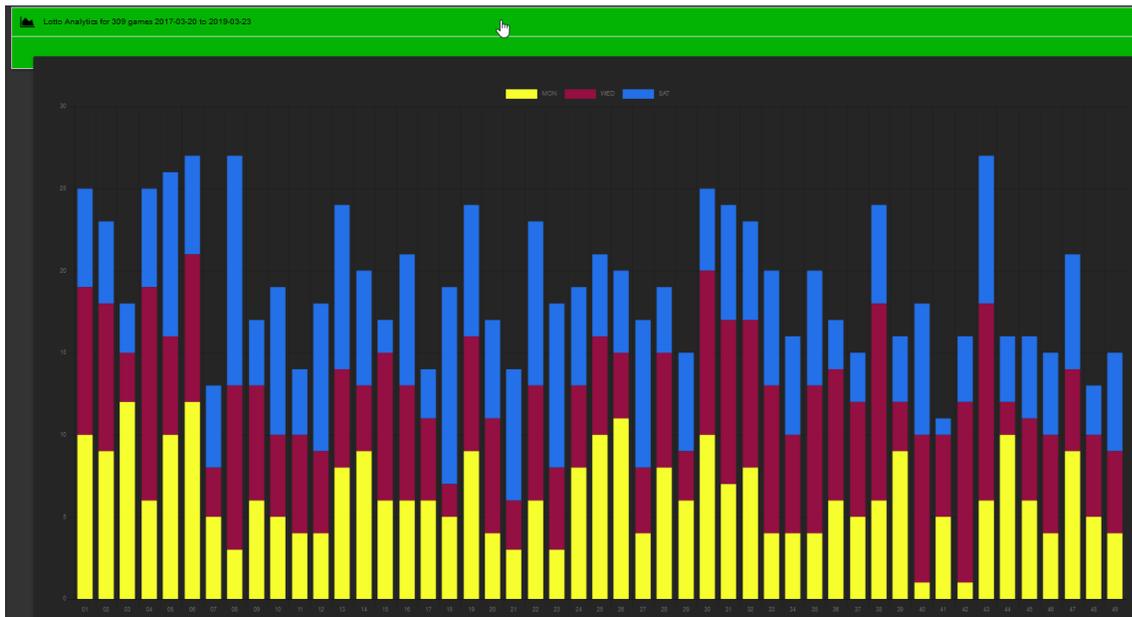
You must run Set Weighted Numbers to generate the files. These files are not provided with the installation.

## 1.8   Game Analytic Graphs

The following game analytics will be available showing the frequency of winning numbers selected for each game.
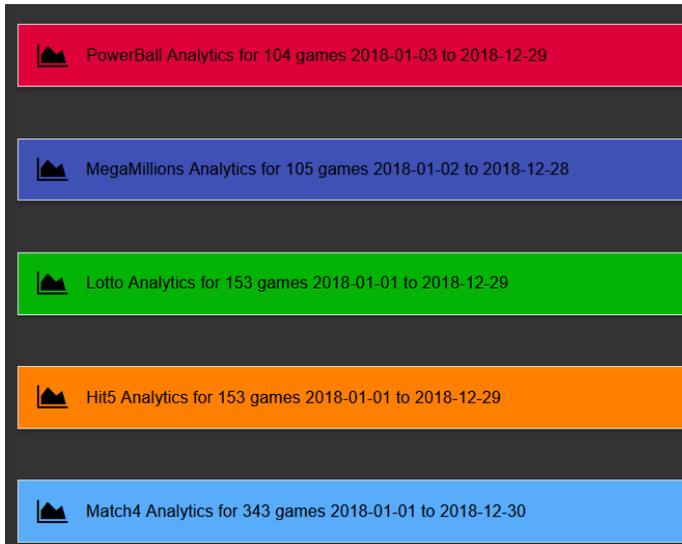


Click on the icon to display a bar chart showing the frequency of winning numbers selected for each game.



The bar graphs show the frequency a number has been selected for each day the game has been played in the selected date range.  Click on the day legend to remove that day from the graph.

# 2   Ubetcha Data Files

After the installation of Ubetcha, the following support files and folders will be present in the installation directory, C:\bin\Ubetcha.

| Install-Ubetcha.ps1 | PowerShell code for used for installing, uninstalling, and running Ubetcha Dashboard. |
|---|---|
| Ubetcha-Options.xml | Default options that can be set on a per game basis. |
| Ubetcha-HotNums.csv | The pool of game numbers used per game for the number selection process. |
| Ubetcha-PickHistory.csv | CSV file containing records of past games played. |
| Ubetcha-Results.csv | CSV file containing records of past winning game numbers. |
| Ubetcha-Picks.csv | CSV file containing records of current games in play. |
| Ubetcha-Service.exe | Web Server executable as a Windows Service. |
| Ubetcha-Service.ps1 | PowerShell source code for Ubetcha DashBoard. |
| Ubetcha.ico | Desktop icon for starting Ubetcha DashBoard. |
| Ubetcha.pdf | Ubetcha Dashboard documentation. |
| \metrics | Folder containing 2018 game analytics. |

## 2.1   Game Number selection algorithm

The pool of numbers selected for each game is contained in the file, *Ubetcha-HotNums.csv*.

```
1    PowerBall,01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
2    MegaMillions,01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
3    Lotto,01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 3
4    Hit5,01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
5    Match4,01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
6    DailyGame,1 2 3 4 5 6 7 8 9,1 2 3 4 5 6 7 8 9,1 2 3 4 5 6 7 8 9
```

Line 1 contains the pool of numbers 01 thru 69 for the regular PowerBall game numbers and a pool of numbers 01 thru 26 for the PowerBall number selection.

When the PowerBall game is played, 5 numbers in the regular game number pool are randomly selected and a single number in the PowerBall pool of numbers is randomly selected.

When the 'Unique Numbers' option is checked during game play and more than one game is played, the set of game numbers selected for each game will be unique.  For instance, if 4 games are played and number 13 is selected in the first game, then 13 will not be selected in any of the other games played.

When the 'Shuffle Numbers' option is checked during game play, each pool of numbers is randomly shuffled before game numbers are selected.

The numbers selected can be weighted towards the frequency that the number has been selected as a winning number.  For instance, the number 58 has been selected 13 times out of 104 games as the winning number. Were as the number 34 has been selected 2 times out of

104 games as the winning number.  Obviously in selecting game numbers, it would be desirable to select 58 more often than 34.  This can be accomplished by repeating the number 58 multiple times in the pool of numbers.  If 58 occurs four times in the pool of numbers and 34 only occurs once, then 58 is four times as likely to be chosen as 34.

Using the feature 'Set Weighted Numbers' does this weighting of numbers automatically for you.

Review the Game Analytic bar charts and weight the numbers for each game as desired or use the Set Weighted Numbers feature to have the computer weight the numbers automatically for you.

## 2.2   Ubetcha Option settings

It may be necessary to change the default port number used by Ubetcha, if another process is using the same port or set specific game options to minimize field selection during game play.

The file, *Ubetcha-Options.xml* contains the default options.

```
1    <Options version="1.0">
2      <Port PortNum="10004"/>
3      <Game Name="PowerBall" Count="1" Multiplier="0" BetGame="0" UniqueNumbers="0" Shuffle="0" Weighted="0"/>
4      <Game Name="MegaMillions" Count="1" Multiplier="0" BetGame="0" UniqueNumbers="0" Shuffle="0" Weighted="0"/>
5      <Game Name="Lotto" Count="1" BetGame="0" UniqueNumbers="0" Shuffle="0" Weighted="0"/>
6      <Game Name="Hit5" Count="1" BetGame="0" UniqueNumbers="0" Shuffle="0" Weighted="0"/>
7      <Game Name="Match4" Count="1" BetGame="0" UniqueNumbers="0" Shuffle="0" Weighted="0"/>
8      <Game Name="DailyGame" Count="1" BetGame="0" UniqueNumbers="0" Shuffle="0"/>
9    </Options>
```

For the PowerBall game, my defaults are set as follows:

```
3      <Game Name="PowerBall" Count="2" Multiplier="1" BetGame="1" UniqueNumbers="1" Shuffle="1"/>
```

With the PowerBall game defaults set this way, I only need to click on the 'Submit' button when playing the PowerBall game.

When options are changed, the *Ubetcha Windows Service* must be restarted.

## 2.3   Ubetcha Background Information

Get-JackPot is the CLI version of this work that was written for my Dad before his passing. The term 'Ubetcha' was used frequently by my Dad with a half grin on his face. The internal logic used in Ubetcha is the same as Get-JackPot with some enhanced features.  For details about the internal logic, see the following links.

Documentation
GitHub
PowerShell Gallery