

Histogram v1.0

AppleScript for iTunes
written by Dan Vanderkam

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This script outputs a histogram of the distribution in length of songs to the clipboard for pasting into a spreadsheet. More info below.

This script is Donationware. If you use it and like it *please* consider making a donation to support my AppleScripting efforts. Click here for more info.

Installation:

If you installed the files from the downloaded disk image by dragging them to the "Installer", then the AppleScript and this Read Me document have already been installed in your *[user name] > Library > iTunes > Scripts* folder. The script will appear in iTunes' Script menu, where you can activate it by clicking on its name.

To manually install, if necessary: Put AppleScripts in your iTunes Scripts folder. This is located in *[user name] > Library > iTunes*. If there is no folder named "Scripts" there, create one and put the script(s) in it. AppleScripts will then appear in iTunes' Script menu, and can be activated by selecting by name and clicking. Be sure to also save this Read Me document in a safe and convenient place.

How to use:

The idea of these scripts is to learn about the distribution in length of the songs you listen to. I was curious about this one day, and didn't discover any existing way to create such a histogram, so I wrote these two scripts.

Histogram

This script simply tabulates the length of all the selected songs. It also takes the number of times you've played a song into account. So if you have three songs which are 1:00, 2:00, and 3:00 long, and you listened to them 3, 2, and 1 time respectively, then it would output

```
1:00    3
2:00    2
3:00    1
```

to the clipboard.

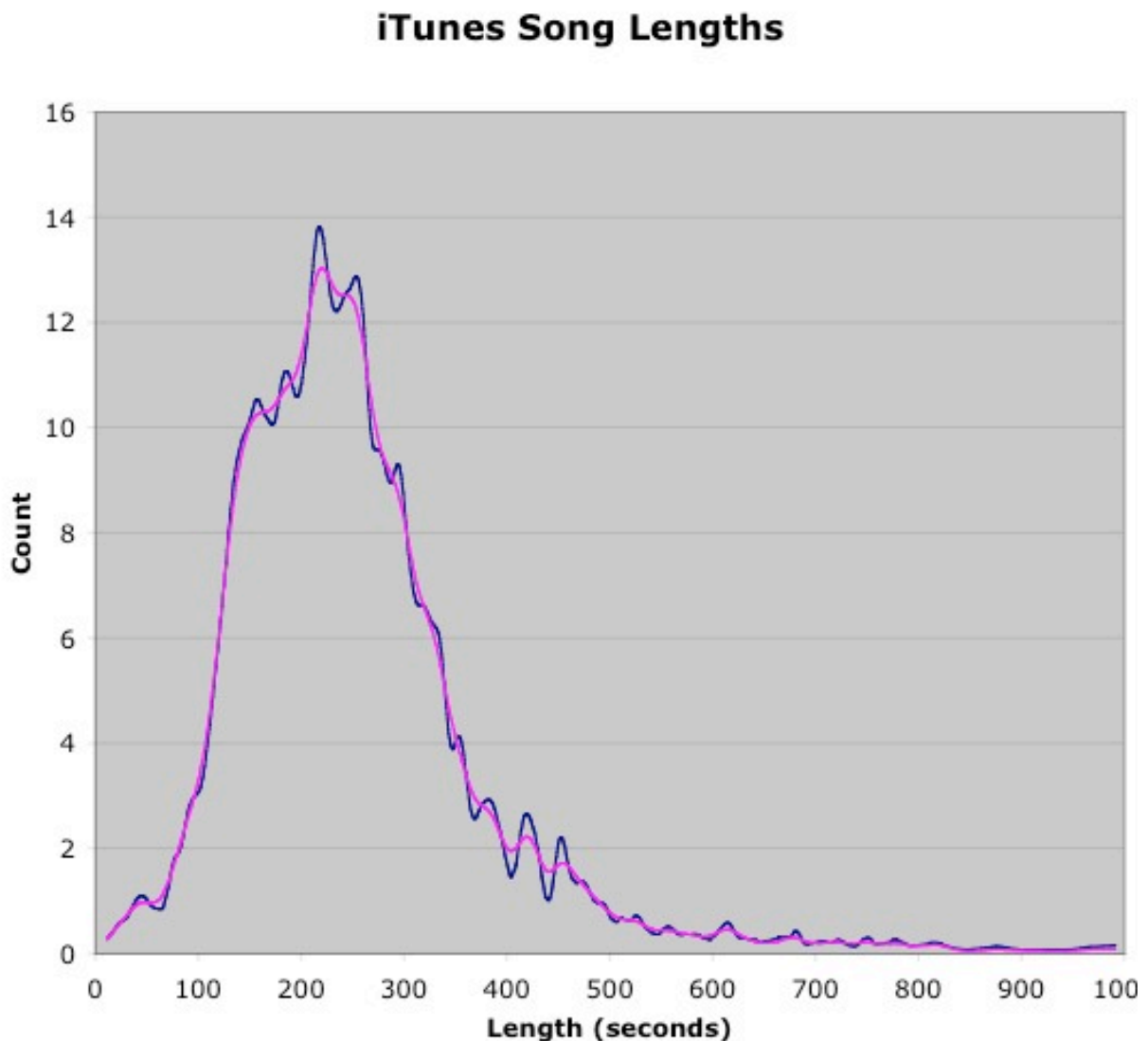
Histogram (Resampled)

This is a more complicated script, and will take significantly longer to run, especially if you select your whole iTunes library. The problem with the first script is that, if you paste its results into a

spreadsheet, the resulting chart will be extremely jagged. One second is simply too fine a time interval. So this script takes those tabulations and smoothes them out. To do this, instead of just counting ten songs which were 4:01 long, it adds a bell curve centered around 4:01 with the appropriate height to the distribution. When you run the script, it will ask you for the standard deviation to use. A larger standard deviation will result in a smoother histogram, but will also take longer to run.

The script took 2–3 minutes to create a histogram for the 3000 songs in my collection, running on an eMac/700 MHz. This speed is actually fairly good, given that AppleScript really wasn't designed for mathematical computation. It doesn't even have an exponential function!

Once the script has finished running, it will put the results on the clipboard in tab-delimited format, so that they can be directly pasted into a spreadsheet. An x-y scatter plot will then give you the histogram. The image below shows the histogram for my songs. The blue line is for a standard deviation of 5. The purple is for 10.



A few notes

If you want to run this script on songs from different computers, you'll have to make a minor change. Usually the scripts weight songs based on how frequently they've been played. But this information is not available for network tracks. So find "the played count of theTrack" in each script and replace it with "1".

Also, to save on computation time, these scripts drop any tracks longer than 1000 seconds (16:40) from consideration. If this is unreasonable for your library, you can go into the script and change the line "set maxSecs to 1000" to however many seconds you like.

If you found the script useful or have any comments, feel free to contact me at danvk@rice.edu.

Helpful Links:

Click on the underlined URL text:

- Doug's AppleScripts for iTunes
- Assign Shortcut Keys to AppleScripts
- Download FAQ - **Info on downloading and installing AppleScripts**
- Doug's RSS Feed - **Recent site news, script additions and updates** (add link to your news reader)
- 30 Most Recent RSS Feed - **Most recent new and updated scripts** (add link to your news reader)

Information and download link for this script is located at:

<http://www.dougscripits.com/itunes/scripts/ss.php?sp=histogram>

Version History:

v1.0 jan 27 2004
- initial release

this doc last updated December 12 06

If you have any trouble with this script, please email me. Note, however, that I am not its author.

My name is Doug Adams
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