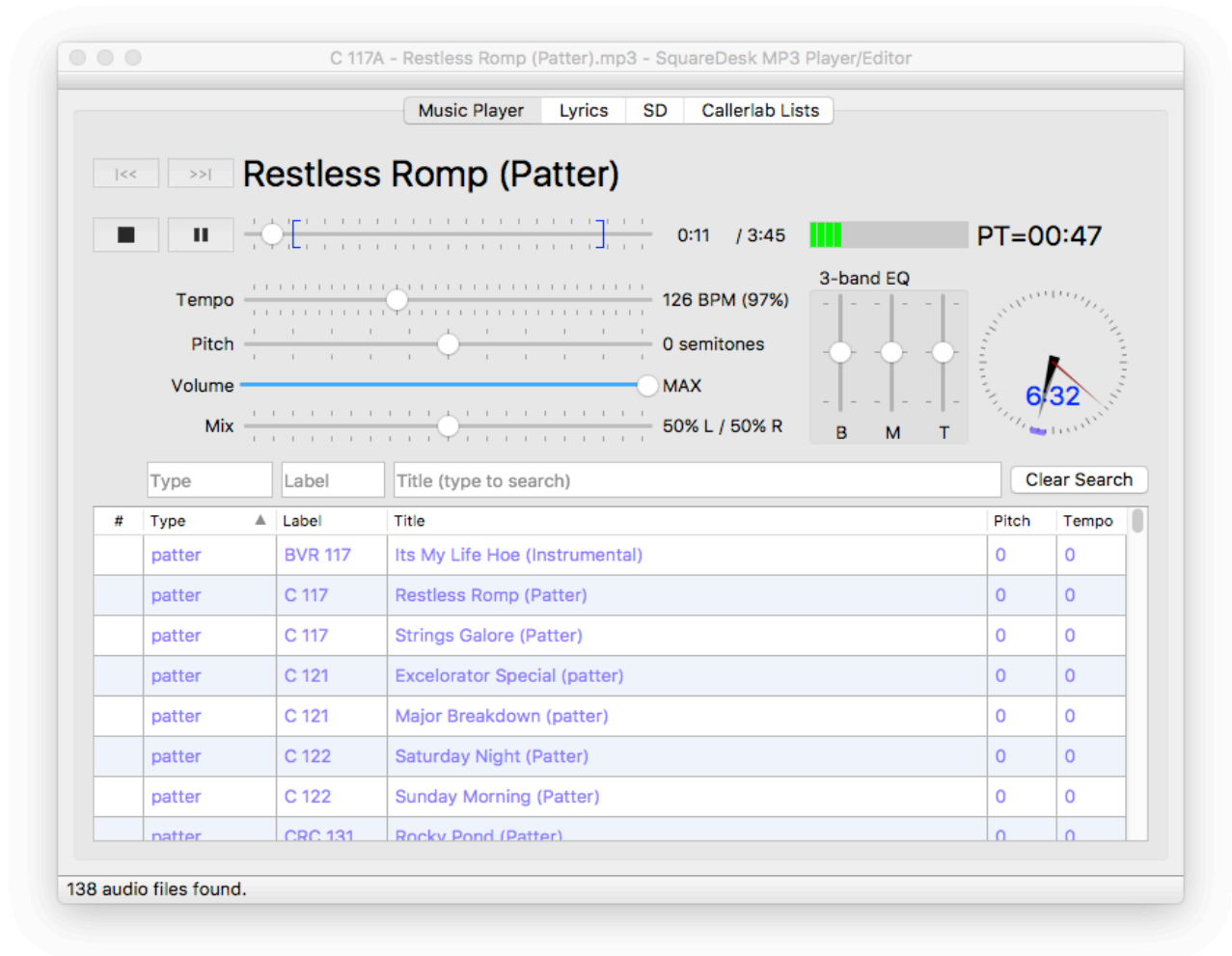


Quick Introduction to SquareDeskPlayer 0.7.0

Mike Pogue, 2017/01/02



Overview:

SquareDeskPlayer is an early version of SquareDesk, a fully-featured music player, lyrics editor, and sequence designer designed for square dance callers and round dance cuers. SquareDeskPlayer contains a powerful MP3 player with independent pitch and speed controls, a quick-search facility, a 3-band equalizer, and a powerful automatic timer capability. It provides a built-in copy of "sd", one of the best square dance sequence designers available, adding a graphical view of the square. SquareDeskPlayer is native on Mac OS X, Windows, and (soon) Linux, so it's fast and responsive. SquareDeskPlayer is also free (as in beer).

Once I reach the V1.0 milestone, the code will be released as Open Source under GPL2/GPL3 licenses, so that others can develop new features as well. If you would like access to the source code before then, please let me know!

I'm looking for general comments, specific comments, suggestions, and especially bug reports. Any feedback you can provide would be helpful!

Prerequisites:

Mac OS X 10.7 (untested)	Lion (initial release: July 2011)
Mac OS X 10.8 (untested)	Mountain Lion (initial release: July 2012)
Mac OS X 10.9 (untested)	Mavericks (initial release: October 2013)
Mac OS X 10.10 (tested)	Yosemite (initial release: October 2014)
Mac OS X 10.11 (untested)	El Capitan (initial release: September 2015)
Mac OS X 10.12.1 (tested)	Sierra (initial release: October 2016)
Windows 7 (untested)	(initial release: October 2009)
Windows 8 (untested)	(initial release: October 2012)
Windows 10 (tested)	(initial release: July 2015)
Linux (untested)	(coming soon)

Getting started (Mac OS X):

- 1) Make sure you are running Mac OS X 10.10, 10.11, or 10.12 . Earlier versions of Mac OS may only partially work. But, let me know what you find!
- 2) Install SquareDeskPlayer by double-clicking on the DMG file, and dragging the SquareDeskPlayer icon to the Applications icon.
- 3) If you ever need to uninstall, just drag SquareDeskPlayer from your Applications folder to the Trash.

Getting started (Windows):

- 1) Make sure you are running Windows 10 (with latest updates). I have not tested Windows 7 or 8, but they might work. Sorry, but Windows XP is known NOT to work (and it's no longer supported by Microsoft either, since it's now 15 years old).
- 2) Install SquareDeskPlayer by double-clicking on the `SquareDeskPlayer_0.7.0_setup.exe` file, and following the instructions.
- 3) If you ever need to uninstall, navigate to the installed SquareDeskPlayer directory (e.g. in "`C:/Program Files/SquareDeskPlayer`"), and double click on the uninstaller `uninst.exe`.
- 4) On older versions of Windows, you may get a "missing api-ms-win-crt-runtime-11-1-0.dll" error when you try to run SquareDeskPlayer. This did not happen for me on Windows 10, but it has happened to me before on Windows 7. I have not tested Windows 8.

To install these required DLL components on older systems, you can download and run `vc_redist.x86.exe` from Microsoft, from this location:

<https://www.microsoft.com/en-us/download/details.aspx?id=52685>

Start using SquareDeskPlayer (MacOS/Windows):

- 1) Create a directory to hold your music files (e.g. [C:\squaredancemusic](#) on Windows, or /Users/<your name>/squaredancemusic on Mac OS X).
- 2) Within that directory, create the following subdirectories/folders: patter, singing, vocals, xtras. You can actually use any names you like, but the names “patter”, “singing”, “vocals”, and “xtras” are special, and will be specially colored in the music selection pane. These names and colors can be customized in the Preference dialog.

Furthermore, automatic Beat Per Minute (BPM) detection is turned off for songs in the “xtras” folder, and Loop defaults to ON for songs in the “patter” folder. It would also be a good idea to create a subdirectory called “playlists”, to hold the new CSV/M3U playlist files.

- 3) Although you can still open individual MP3 files, it's a lot easier to choose music from the list in the bottom pane. Go into Preferences and set a Music Directory path for your music (SquareDeskPlayer will remember your choice here). Set that Music Directory to the directory you created in Step 1 above.
- 4) Put some music files into the subdirectories. Music filenames should look like this:

RR 123 – Lovin' You.mp3

where RR123 is the label and record number, and “Lovin' You” is the name of the song. If you follow this naming convention (and most of the record labels are using this convention, or something close to it), the music selection pane will let you sort by individual fields, including label, label number, type, and title.

If your files are the other way around, e.g. Lovin' You. - RR 123mp3, you can now change the filename style in the Preferences dialog. If you use a mix of styles, there's also a “take your best guess” option that can work for most filenames.

On Windows, you might need to close and reopen SquareDeskPlayer to populate the song table (but you'll only need to set the root Music Directory once).

- 5) Type something into the Label, Type, or Title fields to search your music titles for matches. Anything containing the string you type in will remain in the music selection pane. Note that the search fields work together – you'll only see songs where there is a match for **all** of the fields that are not blank. Click Clear Search to go back to showing all your music.
- 6) Clicking on “Type”, “Label”, or “Title” in the header row in the song table will sort by that column.
- 7) Double-click on a music file to load it. When loaded, the title of the song (without the Label part) will appear above the time bar. Note that double-clicking will not start playback immediately (unless you want it to, see the Autostart Playback feature below).
- 8) You can then play/pause the music, and change tempo and pitch and volume independently. There's also a 3-band Equalizer (EQ) to balance the bass, midrange, and treble of your music. The Mix slider (aka “Balance”) is designed for balancing music/cues in round dances, where

music is on the L channel, and cues are on the R channel.

- 9) Hold down the Control key and click on a song, then select “Reveal in Finder” (Mac OS X) to open the folder containing that song.
- 10) Most functions are also found in the pull-down menus at the top. In addition, there are keyboard shortcuts for most common operations (see the Keyboard Shortcuts section below).
- 11) There are several new **Music preferences** settable on the Music tab of the Preferences Dialog.
 - 1) **Music Names:** Choose the naming style that you prefer, either “Label – Title” or “Title – Label” or “Take your best guess”. Guesses won't always be correct.
 - 2) **Music Types:** You can now choose your own names for the subdirectories of the Music Directory that hold your patter, singing calls, etc. If you use more than one name for a particular type, separate the names by semicolons. Each type also has a color, that is used in the searchable song table, and in the Clock Coloring option (see below). Set the color to #FFFFFF to reset it to the default color.
- 12) There are several new **Experimental features** that are disabled by default:
 - 1) **Timers tab:** provides simple count-up and count-down timers.
 - 2) **Lyrics tab:** provides a separate tab for Lyrics associated with a song. Currently, the lyrics must either be:
 - a) a .txt, .htm, or .html file located in the same directory as the singing call, with the same base filename (e.g. “Rocky Top.htm” or “Rocky Top.txt” would be the lyrics that go with “Rocky Top.mp3”), or
 - b) [MAC ONLY] embedded in the MP3 file itself (iTunes/Mac can add lyrics to an MP3 file: select the file, right click and choose Get Info, and click on the Lyrics tab).In either case, if lyrics are available, the “Lyrics” tab will change to “*Lyrics” to indicate that lyrics have been loaded. Click on the Lyrics tab to view the lyrics. While in the Lyrics tab, you can scroll up and down with the mouse wheel, or using Page Up/Down keys.

Lyrics can be styled with a cuesheet2.css file located in the same directory. See Appendix A for an example CSS file.

On the Lyrics tab, you can also set end-of-Introduction (“Intro”) and start-of-last-section (“Outro” = opposite of “Intro”) points for singing calls. By doing so, the colors that indicate which verse you're in will show the correct times.
 - 3) **Pitch/Tempo columns in the song view:** SquareDeskPlayer now keeps track of the Pitch and Tempo settings for each song within a session. Enable this feature to be able to see these settings. Note: if you Quit SquareDeskPlayer, these settings will be lost, unless you have numbered the songs and saved them as a playlist (see the Playlist item below), or if you have selected “Remember tempo, pitch, and in/out points for each song.

- 4) **Enable Clock Coloring by Song Type:** If enabled, playback will create parts of a color-coded ring around the outside of the clock. Each minute within the hour is color-coded by the song type that was played last in that minute. This allows you to see how long your patter and singing calls ran during the last hour. The colors are the same as chosen in the Preferences dialog.
- 5) **Remember tempo, pitch, and in/out points:** When checked, your preferences for tempo, pitch, and in/out points for singing calls will be saved for each song.
- 6) **Break timer:** SquareDesk keeps track of how long you haven't been playing music. When you are in break, a break timer will appear above the analog clock (e.g. "BK=6:30"). If you haven't been playing anything for more than N minutes (you choose N), a red message will appear "BREAK OVER".

SquareDesk now uses a "zero touch" method for determining when the break starts and ends. This method doesn't require remembering to click a button to start the break. Whenever your singing call ends (or any other non-patter song ends), the break will automatically start. If you pause your patter for more than 30 seconds, the break will also automatically start (minus the 30 seconds that have already elapsed). You can restart the break timer by clicking once on the "BK=mm:ss" text.

- 7) **Long tip warning:** SquareDesk keeps track of how long you have been playing Patter. If your patter has gone on for more than M minutes (you choose M), a red message will appear "LONG TIP", to remind you to move on to the singing call, or give the dancers a break.

SquareDesk now uses a "zero touch" method for determining when the patter section of the tip starts and ends. This method doesn't require remembering to click a button to start the patter timer. Whenever you play patter, the patter timer will start. If you pause your patter for less than 30 seconds, you'll stay in Patter mode. You can restart the patter timer by clicking once on the "PT=mm:ss" text.

- 8) **Set song's initial BPM:** When checked, SquareDesk will always try to set the tempo (beats per minute) to your selected value, when a song is loaded. If it can't do so, it will set the tempo to 100%, and you can adjust it manually from there.
- 9) **Show time remaining:** Select this option, if you prefer to see Time Remaining in the song, rather than the current time within the song.
- 10) **Display "Flash call" every 15 seconds** (Mac OS X only): While you are playing a Patter song, a new random call from the Plus list will be displayed every 15 seconds or so, where the song title is normally displayed.

13) Simple **Playlists** are now supported:

- 1) A Playlist is an ordered list of songs, with saved Pitch and Tempo settings for each.
- 2) You can put Playlists anywhere you like on your hard drive, but remember that they contain the full pathname to your songs. If you move the songs themselves, your current playlists will not find them.
- 3) To add an item to a Playlist, add a number to a song in the “#” column.

NOTE: You'll need to click on the blank area in a cell, and then click again a few seconds later (it works just like you change a filename in the Finder/Explorer – I will see if I can make this easier-to-use later).

After setting some numbers, you probably want to click on the # column header to sort by number. Songs will be written to the Playlist in “#” order.

- 4) You could put the same number on more than one song, but when that Playlist loads again, the order might not be the same. It's a lot more predictable to give each song in the Playlist a unique number.
- 5) Click on the >>| button to go to the next song in the song list. Click on the |<< button to go to the previous song in the song list.

NOTE: These buttons do not go to the next numbered song, they go to the next song in the currently visible sort order.

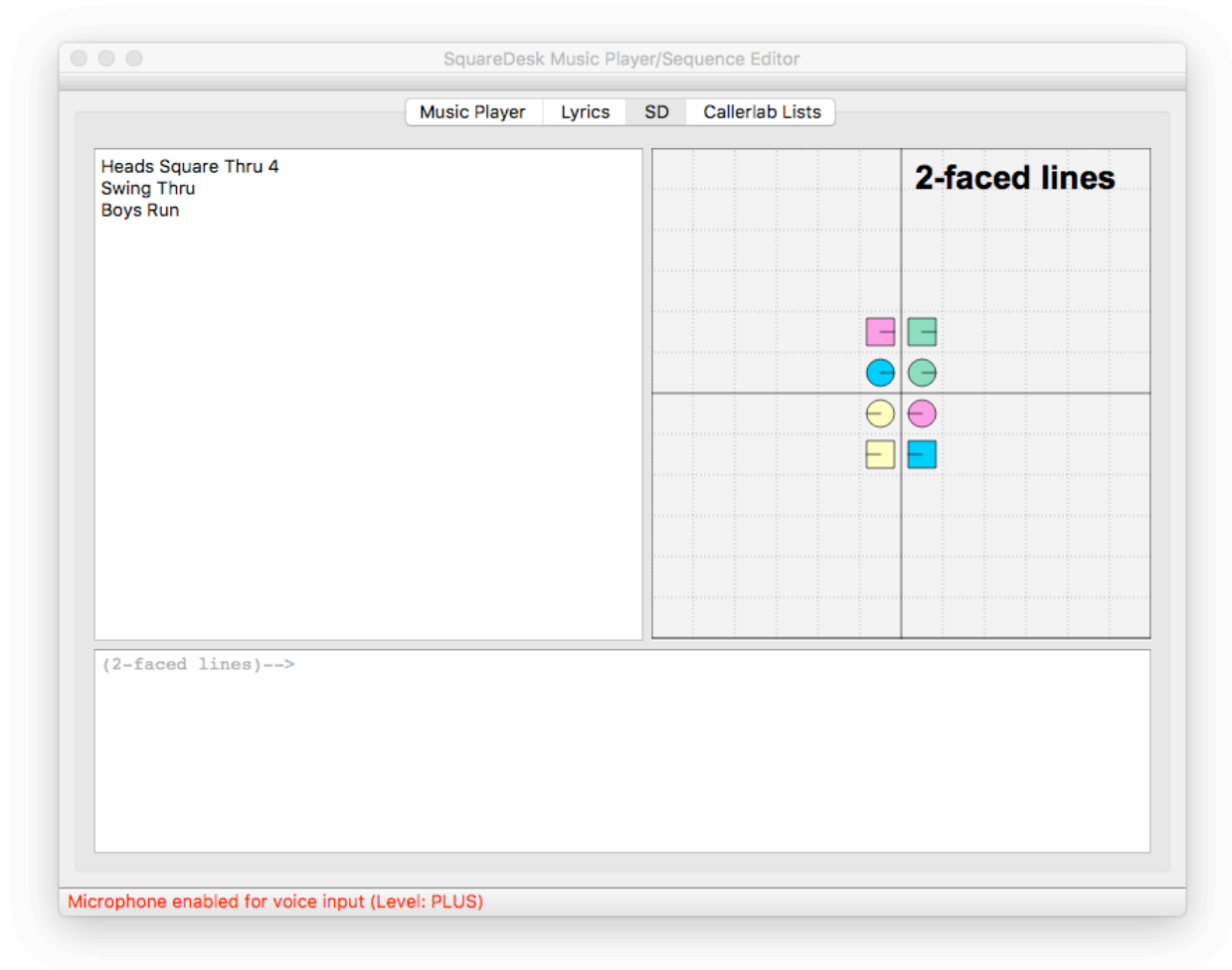
- 6) Select Playlists > Clear Playlist to clear all the Playlist numbers. The Tempo and Pitch you've selected in the current session are not affected.
- 7) Hint: You could setup a playlist for each Club you call for.

14) SquareDeskPlayer now supports an experimental “**Guest Mode**”. If a guest caller plugs in a Flash drive containing a top level folder called “squaredancemusic”, and there are subfolders containing MP3 files, the filenames will be loaded and merged with the songs from your drive into a single unified list. Type fields (based on subdirectory names, just like the normal SquareDesk Music Directory in Preferences) will show a “*” to indicate that the song is available only on the external flash drive.

You can then search for and play songs from the external flash drive just like any other song. Remove the flash drive, and the songs will disappear from the song table.

This feature allows callers to bring their music on a flash drive, rather than bringing an entire laptop that needs to be connected to the host's sound system. In the future, this feature will likely be able to take advantage of guest pitch/tempo/eq settings, etc. as well.

Start using the built-in version of SD (MacOS/Windows):



- 1) The manual for using SD is quite detailed, so this section is just a summary of how to get started. Please refer to the sd manual for the details of how to use sd.
- 2) If you don't already have an 'sd' directory in your Music Directory, SquareDesk will ask to create one. This is where sd will put saved sequence files. Right now, if you don't create this directory, you won't be able to use sd (this restriction may be lifted later).
- 3) On the sd tab, you'll find three panes:
 1. the lower pane allows you to type in sd commands and square dance calls
 2. the upper left pane shows the current sequence
 3. the upper right pane shows a graphical representation of the square
- 4) To start, try typing in "heads start".
- 5) Continue with some calls: "square thru 4", "swing thru", "boys run". The tab will look like the diagram above.
- 6) Keyboard shortcuts: TAB to auto-complete the current call, ESC to erase the current call.
- 7) [MAC OS X only] On MacOS X, you can also use your microphone to verbally enter Plus-level calls. Note that the microphones on your Mac are very sensitive, and will pick up noise that the application will try to convert to calls. So, try to work in a relatively quiet environment. Try

saying: “heads start”, “square thru four”, “swing thru”, “boys run”. The tab will look like the diagram above.

- 8) Verbal shortcuts: “square your set” is a shortcut for “abort this sequence, yes”. “Left bracket” and “Right bracket” can be spoken to insert '[' and ']', which is what sd uses to create correctly-nested calls. For example, you can verbally say “Follow your neighbor and Spread”, and SquareDesk will convert that to what sd wants to see: “[follow your neighbor] and spread”. Alternately, you can make the nesting explicit by saying “left bracket follow your neighbor right bracket and spread”.
- 9) Voice input can be toggled via the SD > Enable Voice Input menu item, or by pressing Cmd-I.
- 10)Note: this feature is very experimental, and likely to have bugs. Please let me know about any problems you find!
- 11)Note: the automated speech recognizer only recognizes valid Plus-level calls, and it prefers them in the exact format that sd likes. This will improve over time, and I'd appreciate hearing about any valid Plus calls that the recognizer doesn't understand.

Current Limitations and/or Missing features:

1. Couple numbering in the graphical view
2. More traditional way of showing the facing direction of each dancer
3. Ability to choose your own colors for each dancer
4. Verbal entry of more sd commands (e.g. “write this sequence”)
5. ASR engine for Win32, so that Windows users can use their voices for input, too
6. sd level is limited to Plus right now (sorry Basic, Mainstream, Advanced, and Challenge callers...the ability to change levels will come later!)
7. Disallow some sd commands (e.g. “exit” will do Bad Things right now)

FAQ (Frequently Asked Questions):

Q1. What does the LOOP function do?

A1. If LOOP is on, the playback head will automatically jump from the 90% point back to the 10% point. Patter records default to turning LOOP on, so you don't have to worry about running out of patter music. SquareDesk will turn it OFF by default for singing calls (and anything other than patter).

Q2. What does the STEREO/MONO button do?

A2. For those callers with stereo speaker setups, you'll want to stick to Stereo mode. If you have only one speaker, you probably want audio from both L and R channels to play on that speaker. To do this, choose Force Mono mode from the menu.

Q3. What is 3-band EQ?

A3. SquareDeskPlayer provides 3 bands of equalization: B (Bass), M (Midrange), and T (Treble). Adjust these to your taste.

Q4. What does the Autostart Playback menu item do?

A4. If you enable this feature, double clicking on a song will load it AND it will start playing immediately. SquareDeskPlayer will remember your preference for this feature.

Q5. What's coming in the future?

A5. A Lyrics editor/player for singing calls will be merged into a future version of SquareDeskPlayer (right now, the Lyrics Editor is a separate application). I'll probably add some simple playlist features.

I'm intentionally not adding a whole lot of features. My philosophy is to keep it simple, and cover 90% of the what you want to do with 10% of the functions. I think you'll find that SquareDeskPlayer is a lot smaller, simpler, and easier-to-use than the other players out there. And, it runs natively on Mac OS X and Windows (a Linux version will be available soon, too).

Q5. Have you tested SquareDeskPlayer on all versions of Mac OS X?

A5. No. It seems to work fine on 10.12 (MacOS Sierra). Feedback on other versions would be appreciated!

Q6. What Playlist formats does SquareDeskPlayer use?

A6. SquareDeskPlayer supports both M3U (MP3 playlist) and CSV (Comma Separated Values) formats. Only the CSV format supports saving tempo and pitch information. Pathnames are full, absolute pathnames, so you can move around the playlists, but you can't move around your music. If you do move your music, you can use a text editor to manually edit your M3U/CSV playlists, or you can also use Open Office or Excel to edit your CSV playlists.

Q7. What's CSV?

A7. CSV is an industry standard format used for spreadsheets. It consists of a header line that describes the column names, and one row for each record. Currently, there are exactly three fields per row:

- 1) Absolute pathname to the music file (must be surrounded by double quotes)
- 2) Pitch change to apply (semitones from no change, 0 = no change; no double quotes)
- 3) Tempo change (0 = no change, <number> = BPM, <number>% = percentage of the original tempo, e.g. 105%, no double quotes)

Keyboard shortcuts:

```
// function          MAC          PC
// -----
// FILE MENU
// open              Cmd-O          Ctrl-O, Alt-F-O
// save              Cmd-S          Ctrl-S, Alt-F-S
// save as           Shift-Cmd-S    Alt-F-A
// quit              Cmd-Q          Ctrl-F4, Alt-F-E
//
// MUSIC MENU
// play/pause        space          space, Alt-M-P
// rewind/stop        S, ESC, END, Cmd-.  S, ESC, END,
//                                                              Alt-M-S, Ctrl-.
//
// rewind/play (playing) HOME, . (while playing) HOME, . (while playing)
// skip/back 5 sec    Cmd-RIGHT/LEFT,RIGHT/LEFT Ctrl-RIGHT/LEFT, RIGHT/LEFT,
//                                                              Alt-M-A/Alt-M-B
//
// volume up/down    Cmd-UP/DOWN,UP/DOWN  Ctrl-UP/DOWN, UP/DOWN
// mute              Cmd-M, M          Ctrl-M, M
// go faster          Cmd-+,+,=         Ctrl-+,+,=
// go slower          Cmd--,-,-         Ctrl--,-,-
// force mono         Cmd-/             Alt-M-F
// clear search       Cmd-/             Alt-M-S
// pitch up           Cmd-U, U          Ctrl-U, U, Alt-M-U
// pitch down         Cmd-D, D          Ctrl-D, D, Alt-M-D
//
// Load Playlist     Cmd-E
//
// SD MENU
// Enable Voice Input Cmd-I
```

NOTE: In many cases, the ⌘ key is optional on Mac OS X.

Bugs fixed/features added in version 0.7.0:

- Experimental feature: Flash a new Plus-level call every 15 seconds
- "L" key now allowed in addition to Cmd-L (Loop)
- Lyrics stored inside the MP3 files are now shown in the Lyrics tab
- Guest mode (external flash drive) now works on Win32 as well
- SD tab for sequence design, with graphical view of the square
- Voice recognition for calls and SD commands (Mac OS X only)

Bugs fixed/features added in version 0.6.2:

- The system screensaver is now automatically disabled while SquareDesk is open.
- Experimental feature: set initial song tempo (BPM) to a user-selected value
- Experimental feature: lyrics tab, auto-loaded from .txt/htm/html files in the same directory, can set a common style using a cuesheet2.css file, settable in/out points for singing calls, can pull lyrics from an embedded ID3 section (Mac only)
- Preferences layout tightened up
- Multiple Callerlab List tabs consolidated into a single reference tab
- Volume and Pitch menu items are now enabled from the start
- Improved auto-detection of Label/label# and Title fields, so you can mix them now
- Experimental feature: Guest mode allows music from an external flash drive to be auto-detected, and merged into the main song table (Mac only).
- Automatic "zero touch" break and patter timers, displayed above the clock.
- Added A2 list, on the Callerlab Lists tab.

Bugs fixed/features added in version 0.6.0:

- Combination analog/digital clock added
- VU meter added (woo hoo!)
- Colored seek bar with 7 sections is auto-enabled for singing calls
- A1 list of calls tab added
- New preferences for choosing
 - subdirectory names and colors
 - file naming style
 - Pitch and Tempo remembered in a session
 - Pitch and Tempo can be remembered between sessions
- Clock coloring shows what you did in the last hour at a glance
- Now compiles and runs on Linux (binary package available soon)
- Reveal In Finder available by right clicking on a song
- Tab now works properly in all dialogs
- Replaced "singing_called" with "vocals"
- Application window now remembers where you put it last time
- Improved help text throughout
- Fixed various minor bugs
- Newline/Carriage Return no longer allowed in search fields

Bugs fixed/features added in version 0.5.0:

- Playlist feature added, M3U and CSV formats.
- Continuous Play feature added.
- Experimental feature: "Enable Timers tab" added.

- Song timer numbers don't jiggle anymore.
- Resizing columns now resizes their respective search fields.
- Pitch and Tempo are remembered within the current session. You can view the current values by turning on the Experimental feature: "Enable Pitch and Tempo columns in song list"
- Reveal in Finder feature (MacOS only) added.
- Double clicking on the Tempo slider now restores the original tempo (which might have come from a Playlist). Other sliders already do double-click correctly.
- Tempo indicator now shows BPM (if know) and percentage relative to base (e.g. "127BPM (105%)")
- Clear Search now doesn't de-select the current row in the song table
- Tab now cycles between the search fields.
- BPM detection is a bit more robust now. In cases where BPM doesn't seem reasonable, we default to percentage (e.g. "100%")
- Now works on MacOS Sierra with the latest tools from Apple.
- Should compile on Linux now.
- Clicking on Title to sort by song title no longer messes up search fields.
- Added tick marks to the EQ sliders
- Pitch, Volume, EQ, and Mix can be changed before a song is loaded now.
- "=" key is now allowed for Pitch Up (no need to hold down the SHIFT key now).
- Label and Label # fields have been combined for simplicity
- Left/right arrows now work when a song is not playing
- Right arrow no longer allows you to go off the right hand end of the song

Known bugs in version 0.6.2:

Mono mode doesn't work correctly with MIX. The Mix should be before the conversion to mono, but right now it's after. Rounds with cues on one channel will not work properly in Mono mode.

Clear Search and Preferences changes sometimes change the order of songs in the song list. Moving the column line just to the right of the "#" column doesn't change the widths perfectly, due to a bug in the underlying framework. This is particularly noticeable on Windows.

Cmd-K highlights the next row, but crashes the app.

The clock needs a 24-hour mode, for European-style display.

There are still a couple more bugs in there, I'm sure.... If you find any, please report them!

For comments and bug reports, please send email to:

squaredesk@zenstarstudio.com

Appendix A: cuesheet2.css example file

Many lyrics are available in HTML form from the producer. If you would like to style them all consistently, and they are all written using the same HTML tags, you can setup a `cuesheet2.css` file to set the font, size, etc. for the lyrics. Here's an example `cuesheet2.css` file:

```
/* Sample CSS stylesheet for singing call lyrics in HTML */
body, p, font { font-family: Verdana; font-size: 30pt;
                font-weight: Normal; line-height: 100%;
                background: #FFFFFFE0; color: #000000; }

.lyrics      { font-family: Verdana; font-size: 30pt;
                font-weight: Normal; color: #000000;
                background-color: #FFC0CB;}

.hdr         { font-family: Verdana; font-size: 30pt;
                font-weight: Normal; color: #FF0000;}

.title       { font-family: Verdana; font-size: 30pt;
                font-weight: Bold; color: #000000;}

.artist      { font-family: Verdana; font-size: 16pt;
                font-weight: Normal; color: #0000FF;}

.label       { font-family: Verdana; font-size: 16pt;
                font-weight: Normal; color: #0000FF;}
```

NOTE: css files are not 100% portable between Mac OS X and Win32 at this time. Fonts of a given size on Win32 will typically be much larger than fonts on Mac OS X.