SqView on Windows

Barry Johnson - CALLERLAB Annual Convention, April 2019

It's pronounced "Square View", and it is the most commonly used software program by square dance callers. There are several other comparable programs available (some free and some for a price); many callers favor the first program they learned and consider all of the others to be too complicated. Callers debate which one is better, just like they may debate the merits of automobiles or any other tools they use in other parts of their lives.

SqView was developed and is maintained by Thomas Bernhed (thomas@sqview.se). Thomas very graciously donates his time and talents and provides SqView at no charge to others just to help other callers be successful in their craft.

For support questions, we suggest first using the Facebook group called "Software for Callers and Cuers"; there are a number of people there that can answer questions not only on SqView but on other software packages as well. Thomas will respond to emailed questions, but we would all prefer not to overload him with numerous requests.

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How to Download, Install, Upgrade and Backup SqView

Download

Download from http://sqview.se : Click the "Download" button on the left side. For initial installation, choose the "SqView with Cue Sheets, Callerlab Lists and Definitions" selection.

Install

There is no separate installation program for SqView. The installation file you downloaded from the web site will be a "zip" file – a single file that actually contains many separate files, just as if it was a folder. Open your Downloads folder and double-click on the "sqview" zip file to see those contents.

One way to do that is to "right-click" on the zip file and "extract" the contents to some place on your computer. SqView's suggested location is a folder named "SqView" at the very top level of your C: disk drive (that would be spelled **C:\SqView**), but you can choose another place if you wish. If you do choose another location, you would be wise to write it down or remember where you put it.

Backing Up Your SqView

You can back up your copy of SqView by simply copying the entire folder containing the program to another disk drive (like a USB drive). If you happen to keep your music and your cuesheets within this same folder, they'll be backed up at the same time... but if not, you'll need to copy the music and cuesheets separately.

The most important file to save is named "sqview.db". That is the file that contains all of your settings: music loops, tempo changes, cuesheet marriages, etc.

Restoring SqView from your Backup

If something terrible happens, you can simply copy the contents of your backup folder back into the folder in which SqView was installed. That should include all of the settings, cuesheet marriages and music settings that were present **when you made the backup**. You can copy your installed SqView to your backup folder as often as you wish in order to keep your backup current.

Again, if your music and cuesheets are stored in some other directory, you'll have to restore those files separately if needed.

Upgrading SqView or associated files

Before you begin, you should first figure out the folder in which you previously installed SqView. For many callers, that folder will be "C:\SqView", but you might have made a different choice. If you normally click on some icon to start the program, you can "right click" on that icon and choose "Properties". The window that opens should show you the full folder name in

which the SqView.exe program was installed.

- To update the cuesheet database alone, choose "Download Utility Database".
- To update the CALLERLAB lists alone, choose "Download Callerlab Lists & Definitions"
- To update the program itself, choose "Download SqView with Update Instructions"

When you download those files, they'll be stored somewhere on your computer (usually in a "Downloads" folder. If the file you downloaded is a "zip" file (or if it looks like a directory), you'll need to copy the *contents* of that file into the folder where you have SqView installed. Double-click on the zip file or on the folder icon to see a list of files, choose all of those files by holding down Control and pressing "A" (that should select all of them), and click the File / Edit / Copy menu item.

Then open the folder where SqView was originally installed and click File / Edit / Paste to apply the updates. You can just copy these files overtop of the original files without losing any of your settings.

Options and Settings

General Option Use

SqView is **very** configurable – there are seemingly hundreds of options and settings. So many, in fact, that some callers get overwhelmed by the number of choices. Just about all of the options and settings are just fine "out of the box", but there are a few that you'll want to change.

After starting SqView, click on the "Options" menu from the top menu bar, and choose the set of options you would like to change. When you're finished changing things, you'll need to press the "OK" button at the bottom of the window to save the settings. (If you just click on the red X in the upper right corner, your changes will be discarded and you'll have to start over!)

Options - User Settings

Music Naming

When SqView attempts to match up a song with cue sheets in its database, it needs to know how to recognize *which* song is selected. It does so by inspecting the name of the music file you've asked it to play.

SqView works best if you have a consistent way that you name your music files, and the User Settings allow you to choose one of three ways built into the program:

- Label Title
- Title Label
- Title Only

By "Label", SqView looks for a label code (like "RR" for Rhythm Records, or "RYL" for Royal, or "SG" for Solid Gold, etc.) followed by a space and then the record number for that label. If both the label and the title are present, they must be separated by a "space dash space": "-", and there shouldn't be any other dashes anywhere in the title.

A typical music file might be named "RR 274 – Bop" or "Bop – RR 274", or just "Bop". Names like "RR274-BOP" (no spaces in there!) will still work, but not nearly as well as if you follow the formats encouraged by SqView.

This naming of music files is something many callers don't get quite right, and it leads to complications in matching the music to the lyrics and cue sheets.

Path Lyrics

Previous versions of SqView stored every cue sheet in a separate file on disk. That folder of cue sheets grew to contain huge – current versions have more than 10,000 separate cue sheets.

But some callers have created their own cue sheets, or modified the existing files, and stored them in disk directories. Use this User Setting to tell SqView where you keep your cuesheets.

Lyrics Search and Lyrics Search Order

Use these settings to control how SqView searches for matches between your music files and the cue sheets that Thomas has assembled.

Create a SqView Shortcut on the Desktop

You probably want to do that.

Options - Music

There are a few options in this window that most callers prefer to adjust.

General: Maximize Window on Start

You probably want this set to True, so that SqView completely fills your computer screen when it starts running.

Music: Maximize Volume on Start

If true, SqView will turn your computer's volume all the way up when you start running SqView. You probably do **not** want this set to True. Many computers these days will produce too strong of a signal on the patch cord to the amplifier and will distort the music. Try seting your default volume level to something like 70% instead.

Listbox 1 (or 2 or 3): Type

This is the single most overlooked option of all, because it controls certain behaviors that most callers like when they start playing music.

By default, SqView displays three different lists of music (the "listboxes"), and they are numbered 1 through 3 from left to right. You can control various settings for each of the listboxes independently. If you choose to display your hoedown music in one listbox and your singing calls in another listbox, then you can tell SqView about the type of music in each box.

If you set the type to "Hoedown" for one box, then SqView will automatically loop the music whenever music from that box starts playing. If you set the type to "Singing Call" for a listbox, then you can have the lyrics automatically loaded and/or displayed when a song is started. The default setting, "All Types", doesn't do either of those: it doesn't automatically loop the music or find the lyrics. You want to set the music Type for Listbox 1, 2 and 3.

Music Organization

Music File Naming Conventions

As mentioned earlier, SqView works best if you follow a naming convention: usually containing both the label code and number and title separated by a "<space>**<dash>**<space>", like

```
"CHIC 1011 - Home Sweet Home.mp3"
```

"Home Sweet Home - CHIC 1011.mp3"

Or just

Or

"Home Sweet Home.mp3"

When you download music from a producer, you may have to change the spelling of the mp3 file that they provide. You'll also prefer to have the name of the cue sheet spelled exactly the same way as the MP3 file in order to simplify matching the two when you play the song.

Folders and Directories

A full discussion of folders (sometimes called "directories") on computer systems is beyond the scope of this presentation, as is a discussion of exactly how one can move, copy and delete files in those folders. But having said that, callers will benefit from learning how to do these things, and those skills are a great help in organizing your music.

In the simplest case, many callers simply store all of their hoedowns in one folder and all of their singing calls in another folder. It doesn't really matter to SqView how many music files you have in a single folder, but it can take a few seconds for you to find exactly the one you want if you have to search through 500 or 1000 different files every time.

Some callers will have "current favorite" hoedown and singing call folders and move files in and out of those folders as they rotate their music. Some callers create seasonal or topical folders (such as St. Patrick's Day music). It's perfectly fine to put a copy of the same music in two or more folders: Perhaps once as a current singing call, another as a hoedown, and yet another as a seasonal favorite.

Think of the folders on your computer like folders in a filing cabinet, and organize those folders in a way that makes sense to you.

Playlists

A "playlist" is nothing more than a list of music files. Those files can be stored in the same folder; they can be stored in different folders; they can be scattered everywhere... The playlist is just a list of disk file names.

Playlists can be very useful as you prepare for various events. Some callers create a separate playlist in advance for each dance: They know what pieces of music they want to use for that event, and build it in the order in which they want it played. Some callers will construct their seasonal, topical, or even recently added lists of music using playlists. Any time you think you want a list of music, especially if the music is in multiple folders, a playlist could be a good choice.

SqView's **Tools / Playlist Manager** menu selection allows you to construct playlists. Use the buttons on the right side to create a new (empty) playlist; then use the buttons on the left side to open folders containing music. Select one or more pieces of music you'd like in the playlist and click "Add". You can then open other folders and add more pieces of music to the list.

You can change the order in which the music appears in the list – it doesn't have to be in alphabetical order at all. There are buttons you can use to move the songs up and down in the list.

You probably don't want hoedowns and singing calls in the same playlist – you'll open this list in one of the music listboxes (which hopefully has a music type of either Hoedown or Singing Call declared). So, if you want hoedowns in one window and singing calls in another, you'll want separate playlists for each type.

Listbox Management (type, select, clear, reset, search, clear history)

The three music listboxes are the main way you'll choose the next piece of music to play. If you don't feel the need for three different lists, you can use the Options / Music / Listbox General / Number of Listboxes setting to show just one or two lists instead of three.

Just above each listbox is a series of buttons. Use these buttons to:

- Display the contents of a playlist in this listbox
- Display the contents of a folder in this listbox
- Save all of the songs displayed in this listbox to a new playlist
- Search for songs in various ways
- Reload the listbox from the playlist or directory (in case it changed)
- Clear the marks showing which songs have been used
- Search (or don't search) for lyrics for these songs. If the button is showing a red slash, then lyrics for music in this list will not be found or displayed. You probably want the red slash for hoedowns, but click it so that there is *not* a red slash for singing calls.

If you switch back and forth between folders or playlists, you can see a drop-down list of the previously used folders. That can make switching back and forth go much easier.

If you want to remove some previously used folder from this drop-down list, use the File / Remove Content from Music Combo menu selection. It will clear *all* of the history from those drop-down lists, but that can be better than seeing some old long-deleted folder from appearing every time.

You can construct playlists from these listboxes. Suppose you have Listbox 1 set for hoedowns and Listbox 2 set for singing calls. You can drag music out of either of those listboxes and drop it on Listbox 3 to add to that list. You can then save the contents of Listbox 3 to a playlist for later use.

The default font for displaying the lists of songs is too small for some people to read comfortably. You can change this font with the Options / Music / Listbox General / Font setting. My personal copy is set to use the MS Sans Serif font, Bold, at size 14.

Playing Music

Basic Controls (Start / Stop / Rewind / Fade Out / Fade In)

There are simple buttons near the upper left corner of the screen to play music. From left to right, they will Play/Pause the music, Stop and Rewind to the beginning, Skip Back 5 Seconds, Skip Forward 5 seconds, and Fade Out and Stop (or Start and Fade In, if the music isn't playing).

The yellow button with a blue question mark will open a window to search for matching lyrics. The yellow button without the question mark will display the lyrics, if they have been found.

Tweaking Music

You can control the tempo (beats per minute), the pitch (key) and the volume of the music using the slider controls. Changing the "speed" slider will work like the turntables: A faster speed will increase both tempo and pitch at the same time; a slower speed will lower both at once. You almost never, ever want to change the "speed" setting – 44,100 is the right answer.

Looping

If you would like the music to automatically keep playing as it reaches the end, you can check the "Loop" checkbox. The "Start" and "Stop" times below this checkbox indicate the beginning and end of the loop: Once the music reaches the "stop" point, it will instantly jump back to the "start" point and play from there. That looping process will continue until you stop the music (or clear the "Loop" checkbox), although there is a music options setting to make it stop after a given number of loops (Options / Music / Music / Number of Loops).

By default, the start point is 15 seconds after the beginning of the music, and the loop's ending point is 15 seconds from the end. This default number of seconds (15) can be controlled with Options / Music / Auto Looptime.

If the listbox type is set to "Hoedown", the "Loop" checkbox will be automatically checked when a song is started.

Handy Options

Towards the right side of the screen (just left of the clock) are six buttons.

- The Tracking button tells SqView to keep a list of each piece of music you play, listed
 under the name of this particular dance. You can track every piece of music for every
 club for every dance if you wish, then go back and review that tracking to see what you
 have used in the past.
- The Markers button is normally used only by tape groups playing previously recorded material, with a desire to go back to specific marked locations in the music. For example, someone teaching round dancing may wish to go to set markers for the first

Part A section, each of the Part B sections, and so on.

- If the **Autostart** button is depressed, then music will begin playing immediately if a selection is double-clicked. If that button is not pressed, then a double-click will "select" the music, but the "Play" button would have to be clicked to start it playing.
- The Lyrics Play button will cause a singing call's lyrics to automatically be displayed when the music starts playing. If both Autostart and Lyrics Play are pressed, then a double-click on a singing call will start it and display the lyrics in the same single action.
- The Interlocked Squares button (just to the left of the Tracking button) will open the "Square Identification" window. In this window, you can write down your favorite couples for sight resolution.
- The **Coffee Cup** button begins a "break timer", counting down the time until the next tip should start. Of course, there are numerous options related to breaks: How long they should be and what type of action should take place when the time elapses. For example, there is a setting that will cause the next selected piece of music to automatically begin playing when the break timer counts down to zero.

Click this button a second time to indicate the break is over.

Music Queue

You may choose to "queue" one or more pieces of music to be played in sequence. For example, you can add your hoedown followed by your chosen singing call (perhaps even for multiple tips in a row) in advance. You can then just tell SqView "play the next queued music" without having to hunt through listboxes and double-clicking on things.

The list of queued music is the window towards the upper left of the screen, just below the "Play" and "Stop" buttons. You can add music to this list by double-clicking on it (if AutoStart is turned off), or by right-clicking on it.

The button in the upper left row (above the queued music list) that has two right-facing triangles will play the next piece of music in the queue.

Progress Bar

As you play a piece of music, SqView can help you keep track of just where you are in the song. This is particularly useful during singing calls.

The colored progress bar at the bottom shows you how far into the music you are, and the colored bands *approximate* which break or figure is going on. SqView doesn't really know where the different breaks in the singing call really appear – it simply divides the entire time up into seven chunks and shows a different color for each seventh of the time. But that's normally

close enough for a caller to know if there's one more figure needed (or not!) before the middle or closing break.

Hot Keys

Moving a mouse on a computer screen during a dance can be terribly awkward, especially with the arm angles involved when the caller is standing and the computer is down on a table. SqView allows many of the various button clicks to be replaced by pressing keys on the keyboard. These are called "hot keys", and the hot keys are generally active nearly any time SqView is running.

There is a default mapping of keyboard keys to various functions in the program, but you can change those settings and define the keys to use in any way you want. There are about sixty different functions that can be associated each keystroke. The window to look at or change these settings can be displayed by clicking on the Options / Hotkeys menu item.

The most useful default hotkey settings are:

Spacebar	Pause or Play music
Period	Start the music playing from the beginning
К	Play the next piece of music in the queue
Υ	Fade the music out (if playing) or in (if stopped)
Е	Slow the tempo down by a little bit
R	Speed the tempo up by a little bit
D	Lower the pitch by one semi-tone (a half tone)
F	Raise the pitch by one semi-tone (a half tone)
1	Display Tab 1 (normally the "Music" tab)
2	Display Tab 2 (normally the Lyrics tab)
Т	Display or hide the lyrics for the current song
Arrow Up	Scroll the lyrics or choreography back towards the beginning
Arrow Down	Scroll the lyrics or choreography further down
Page Up/Down	Scroll text up or down by a larger amount
Home	Jump to the top of the lyrics or choreography page

End	Jump to the end of the lyrics or choreography page
F8	Play a pre-configured sound (perhaps an announcement fanfare
F9	Play some other pre-configured sound

Output Devices

By default, SqView will send music output to the "default" output for Windows. This is normally the correct output device.

But there are occasions when you must tell SqView to use some other connector on your computer to play the music. For example, if you plug in a USB sound card after SqView is already running, you'll need to manually select that USB device – SqView won't switch to the new device all on its own.

You can do this with the Options / Select Output Device menu selection.

Big Buttons

If you have a touch screen computer, or if you use a mouse and have troubles hitting the little tiny buttons for playing music (and you don't like to use the keyboard hotkeys), SqView can display a much larger "Music Control" panel.

The View menu has a "Music Control" option to display this separate window. These big, friendly buttons and easy-to-read text really help some callers operate the system.

There are buttons on this control panel to Start, Stop and Fade Out the music; to show the lyrics; to increase or decrease the tempo; and to jump forward or backwards 5 seconds.

You can make the buttons and text even bigger by increasing the size of this window.

Music Settings

SqView can alter several characteristics of your music *as it plays*, without the need to use a music editor to alter the original file. Using the controls on the main music tab, you can tweak the pitch, volume, loop timing, music equalizers (bass vs. midrange vs. treble) and even have SqView introduce a key change partway through a song.

To display the equalizer window, use the View / Equalizer menu selection.

If you use the controls on the main music page to fiddle with a piece of music (perhaps slowing it down or speeding it up), you can press the "Save" button in the top center to keep those settings for next time.

Music Manager

You don't have to do all of the setting work on the main music page. SqView has a separate window to let you see and adjust *all* of the music settings that you have saved. Use the Tools / Music Manager window to change everything.

The Music Manager allows you to set speed, pitch, tempo, volume, loop start & end, equalizer settings (and whether the equalizer is even turned on or off for this music), the Beats per Minute display value, and any key change you have added. You can also add comments about the music and markers for specific locations within the song, such as the beginning of each figure.

This tool is *very* useful when you want to fiddle with the loop settings. Here's a handy process to get your loops dialed in:

- Go to the main music tab and select the piece of music to work on. Clear the times for the beginning and ending loops.
- Play the song, and click on the green checkmark next to the starting loop value when you reach the starting point of your loop. The time is actually when you let go of the click, so you can hold it until just the right time, then let go.
- Slide the nubbin along the progress bar on the bottom until you get to about where you'd like to finish. Once again, hold down the green checkmark next to the "loop end" time and let go about where you'd like it.
- Click the "Save" button to save these initial values.
- Now, to make those values more precise: Open the Music Manager (Tools / Music Manager) and double-click on that music. You'll see the loop start and stop times displayed in seconds (perhaps with values like 11.93 for the start and 221.61 for the end)

- You can change those numbers and click on the "Loop" button (to the left of the settings, with a green triangle icon) to hear how the loop sounds. SqView will play the five seconds of music leading up to the ending point, do the loop, and play a few more seconds afterwards.
- By tweaking the numbers (you can even go to a thousandth of a second if you wish) and using the "Loop" play button, you can quickly dial in precise loop start and end times.
- DON'T FORGET TO CLICK THE "SAVE" BUTTON WHEN YOU'VE FINISHED CHANGING THE SETTINGS FOR A SONG!

If you wish, the Music Manager can export all of the settings to a "CSV" file that you can open in a spreadsheet program. You can also load a CSV file (but it must have the same columns as the exported file) back into the music settings database, so you can fiddle with all your settings inside a spreadsheet if you wish.

Lyrics and Cue Sheets

Cue sheets showing the lyrics, and often figures, for a piece of music can be displayed when that music begins. SqView comes with a database the cuesheets for more than 10,000 pieces of music and new cue sheets are occasionally added – but you need to update the database on your computer to receive those new cuesheets.

Music producers generally deliver cuesheets in various forms when you purchase their music, but those sheets are not always in a format that is easy for SqView to process. If you want the all of the benefits of SqView's lyric processing, you may find it easier simply to create your own cuesheets for new music.

Location on Disk

SqView's database of cuesheets is stored within a file named "utility.db", located within the folder containing SqView itself. You can download newer copies of this database from the SqView web site (http://sqview.se); as of this writing in April 2019, the most recent version was dated November 22, 2018. Look for "Download Utility Database" on the Download page of the web site. When you download a new copy of this file, you must copy the file into the SqView directory and restart SqView.

If you write your own cuesheets, they will generally be saved as disk files. You will want to save those cuesheets into the directory shown as the "Lyrics Path" in Options / User Settings.

Searching for Cuesheets

When SqView needs to display lyrics, it needs to discover exactly which lyrics file to show. There are settings in Options / User Settings that control just how SqView will search for these lyrics.

If it cannot find any matching lyrics (or if it finds too many choices that match), SqView will open a window asking for you to help. You can use this window to search for portions of the name of the song or search by label code and number. The results of the search will be displayed (sometimes it might match several files); you can then choose which of those lyrics should be used.

This window also contains a checkbox that says "Always show selected lyrics". If this box is checked, SqView will remember the selection you made and "marry" that cuesheet to that particular music file. Internally, SqView writes down the full name of the music file (including which folder it is in) and the full name of the cuesheet file (including which folder it is in). If you move either the music file or the cuesheet to a different folder, you'll have to go through the search process again when you next play that song.

Display and Auto Display

You may choose to have the lyrics displayed directly on the main Music page (the "Music Tab"), displayed on the second "Lyrics" tab, or displayed in a separate pop-up window. See the "Show

Lyrics" setting within Options / Lyrics. If you select the Music Tab, then the lyrics will be displayed in place of the three list boxes while the music is playing; the list boxes will reappear when the music stops. You may have to press the letter "T" to show the lyrics instead of having them automatically appear.

If you have the cuesheets displayed on the Lyrics tab, then the entire music control page will be replaced by the lyrics page. You can switch back to the music tab, even while the song is playing, by pressing either the "T" key (which switches back and forth between the two) or by pressing the "1" key (which means "Display Tab 1") and the "2" key (which means "Display Tab 2").

If you show the lyrics in a separate window, you can either close the window yourself or click the "T" to show and hide it.

As previously mentioned, there are several things that control how lyrics are displayed automatically when the music plays:

- The listbox being used should be set to type "Singing Call" in Options / Music / Listbox 1 (or 2 or 3). Without this, SqView doesn't think any of these music files need lyrics.
- The yellow button above the listbox (the right-most of the six buttons above that box) should *not* have a red slash showing; click it to remove the slash. If the red slash is showing, that means that SqView won't attempt to find the lyrics even if this is a singing call.
- The "Lyrics Autoplay" button near the clock should be depressed (showing a green check, not a red X). This means that you want the lyrics to be shown automatically when the music starts. If this is *not* depressed, SqView will still look for the lyrics and put them into the lyrics panel but you'll need to switch to that panel by pressing the "T" key to show them.
- SqView has to know which set of lyrics to show.

If SqView isn't showing the correct set of lyrics (perhaps it found the cuesheet for a different piece of music, or perhaps you choose one that you really didn't want to use), you can fix it this way: Start the music playing, then switch to the Music tab by pressing the "2" key. In the upper left corner is a yellow button with a blue question mark. Click that button, and the lyrics search window will be displayed – you can then pick a better cuesheet, if one exists.

You can control the color, font and size of the cuesheet text for those cuesheets that are in SqView's preferred format. (But you can't change the fonts on a PDF file or Word document, which are two of the common formats provided by music producers.) There are several different options for this in Options / Lyrics / Stylesheet.

While displaying a cuesheet, you can use the arrow keys or the Page Down / Page Up keys to scroll the lyrics up and down.

Writing Cue Sheets

You can create your own cuesheets fairly easily – I normally do this for all new music I use if the producer doesn't already provide a suitable SqView cuesheet. (Rhythm Records DOES provide cuesheets in SqView format. Thank you, Wade!)

Click on Tools / Cuesheets, and a window will open up.

In this window, you have four main panels: The opening break, middle break, closer and a figure. Enter the calls and the lyrics, typically one line for every eight-beat phrase. Check the box just to the right those lines that are actually lyrics being sung; that causes those lines to be displayed in a different color. You don't have to fill out all of the lines for each panel; leave them blank if you wish.

Be sure to enter the record label and title information in the top left corner of the window (like "A 1012" and "Light the Candles"). Enter the name of the caller that did the vocal track if you wish. The record label and title will be the important things that will match this cuesheet to your music file; if the record label and title match name of your music file (like "A 1012 – Light the Candles.mp3") things will go much smoother.

You can also add a tag line to be displayed at the bottom and additional lyrics or comments you'd like to have included.

I recommend changing the Layout to "Two Column". Since nearly all modern laptops are now wider than they are tall, the two-column format works MUCH better.

When you think you've entered everything, click on the "View" button in the lower right corner to preview your work. If you are happy with it, close the preview and click "Save" in that lower right corner.

This will be your one chance to edit and save the file. If you want to change the cuesheet later, you'll have to start this whole process over again (or else learn how to edit the files by hand).

Marrying Lyrics and Music Together

The lyrics search window allows you to locate a cuesheet for a given music file and "marry" those two files, so that cuesheet will be used every time with that piece of music. The process of discovering which music doesn't have cuesheets could be tedious if you had to do them one at a time, especially if you had to wait until you played the song to find out. SqView has a few tools to help with this process.

First, the "search" window for a given listbox can show you the list of that music in the list that does not have a matching cuesheet. You can use that filter on your singing calls to focus on just the ones that have an issue, and not worry about the perhaps hundreds of other music files that DO match nicely. Just click on the "magnifying glass" icon above your singing call listbox, click the radio button "Music not Lyrics database" and click OK. After a bit of work, the listbox will show only those pieces of music without matched lyrics.

Later, you can use the drop-down list just below the icons to go back to displaying all of the files you normally see in the list.

To see the complete record of music and lyrics files connected together, use the Tools / Marry Lyrics menu selection. A "Marry with Lyrics" window will open and show three main panels. The panel at the bottom is the list of those music files specifically matched with a given cuesheet. If you know of one music file that consistently displays an incorrect cuesheet, look through this list – if you see the bad one mentioned, click on that line in the list and press the "Delete" button to the left. That will "divorce" the two files, and you can then match that music file to some other cuesheet.

The top two panels can be used to make marriages without going through the search process one at a time. You can open a playlist or directory filled with music files within the left-side panel, and look at either a directory with cuesheet files or at the main cuesheet database on the right side. Click on one line in each of those two lists (a music file and a cuesheet), and press the "Add" button between them — and those two files will be married together.

Updating the cuesheet database

As previously mentioned, Thomas occasionally provides an updated database of cuesheets. Visit http://sqview.se from time to time to see if there are updates; from the Download page on that website you can get a new copy of the "Utility Database" that contains all of the lyrics he has. You will need to first download that file ("utility.db") to your computer, then copy that file to your SqView directory in order to be able to use those new sets of lyrics.

Record Database

Along with more than 10,000 cuesheets, the utility database file has a list of nearly 15,000 pieces of square dance music produced by nearly 300 different music producers. You may search this database looking for information on records.

This is particularly useful if you're trying to find a label number for some song whose name you think you know. But again, the list only contains the records that Thomas knows about, and is only as up to date as the most recent version you have downloaded from his web site.

We suspect Debbie and Vic Ceder have a great deal to do with the preparation of cuesheets and the record database – we're very grateful for their efforts as well.

Automatically Scrolling Cuesheets

Some callers prefer to have their lyrics automatically scroll vertically as they work their way through a song. There are two settings in Options / Music that control this: "Auto scroll cuesheet (millisec)" and "Auto scroll cuesheet unit". The first number is the count of thousandths of a second between scrolling up, and the second number controls the number of dots to move up on the screen. The callers that do that have set these values to numbers like 150 and 1 or 300 and 1.

If you do have the cuesheets automatically scroll, you can move back up to the top with the Page Up or Up Arrow keys.

Timers

SqView has two types of "timers": one that keeps track of how long you've been playing this piece of music (or how long remains until the end); the other tracks how long of a break you've been taking between tips.

Control the use of these timers through Options / Music / Timers – they are nearly at the end of the list of music options.

Music Timer

You can have the music time count up (showing how long you've been playing this music) or count down (how much time is remaining), and you can set a desired length for your patter tips. In fact, you can set different preferred lengths for different skill levels, from the Basic program up through Challenge 4.

You can have SqView "pling" (play a sound) when you've reached the time limit for your hoedown.

See Options / Music / Timer for these settings.

Break Timer

The main music window has a button with a "coffee cup" image that can be clicked to indicate that a break has begun. SqView can then start counting the time since the break started, and even "pling" or automatically start playing music when the break time has been passed.

In fact, you can even tell SqView that if you stop the music for some number of minutes, then it should automatically decide that you're taking a break and start the break timer even if you haven't clicked the coffee cup.

See Options / Music / Break Timer for these settings.

Note that you can also change the sound played from the default "pling" to some other short snippet with the "Pling Music" setting. You'll have to choose the sound or music file on your computer to play.

Choreography and Content Tabs

If you prefer to work from previously written materials, whether that is entire sequences ("cards") or get-in / get-out / flow modules, SqView can help you organize and display that material during a dance. It supports using different sets of material for each different dance program (Basic through C4), and can show you the various dance program lists and definitions if you put those files in the proper locations.

Choose the dance program from the "Change Program" menu selection.

SqView has a series of "tabbed" display panels, with the tab selections located just below the menu bar at the top of the screen. The first two ("Music" and "Lyrics") have specific purposes, but you can change the name on the tabs if you wish. The remaining tabs (and even more than are displayed by default!) can be completely defined in any way that you prefer, including the tab names and the choreography displayed in those tabs.

Use the Options / Choreography menu selection to control these choreographic tabs.

Lists and Definitions

Download the CALLERLAB lists and definition files from http://sqview.se, and copy them to the SqView directory. Copy the downloaded folder named "ListAndDefHtml" into your SqView directory.

Some Windows systems have a problem displaying the lists and definitions in PDF format. If this happens to you, copy that ListAndDefHtml folder into your SqView directory and change the display format to "HTML" with the "List & Definition Format" setting in Options / Music / General.

Displaying Choreography

You can select the choreography to be displayed on tabs 3 through 15 by choosing either a directory containing separate files with choreography, or by choosing a "choreography file" that works much like a music playlist.

Switch to the desired tab and click on either the "Dir" or "File" buttons on the left panel. (If you choose the File button, you're really selecting an ".INI" file that contains a list of individual choreography files – more on those INI files in the next section.)

Click on the Next and Back buttons to move from one displayed file to another, or the "-10" and "+10" buttons to skip forward or back ten files at a time.

The files displayed can be in any one of several formats: simple text (.txt), rich text format (.rtf), HTML like a web page (.htm or .html), portable document format (.pdf), or and older format named MIME HTML (.mht).

Writing Your Own Choreography

SqView has some simple text support for writing and storing choreographic sequences. You can put each sequence into a separate file, or you can put multiple sequences in the same file. If you have the skills, the HTML file format allows you to decorate the text with colors, different fonts, even images and links within the file.

SqView can launch a "checkers" program of your choice, but you would have had to tell it which program to start up using the Options / Music / General. SqView does know how to interpret the text files produced by the SD checker-moving program, so you can write your sequences using SD and copy them into SqView if you wish.

Memory Manager

When calling from written material, sometimes you need to mark a sequence for later review. Click on the "Memory" button on the choreographic tab, and SqView will make a note of that particular data file.

Later, you can use the Tools / Memory Manager menu selection to view the list of marked files.

Show Calls

If you wish, you can ask SqView to show you randomly selected calls from the active dance program by using the View / Show Calls menu selection.

It will open a new window and suggest three calls for you to use. After a certain number of seconds have passed, it will add a different call and scroll the oldest call off the screen. You can use this feature to remind you to use certain calls during extemporaneous choreography (when you're making it up as you go along).

You can provide a list of the calls you would like selected; for example, while teaching a class you might only want to have it choose from the calls you have taught so far.

Other Tools

Jukebox

Click the View / Music Jukebox menu selection to have SqView begin playing all of the music in one of your three music listboxes (or from the queued list of music waiting to be played). The songs can be played in sequence or randomly.

For example, you can program a list of songs in a playlist, display that playlist in one of the listboxes, and tell SqView to play those songs in order as background music for a banquet or party.

Be sure that the "Type" of the listbox chosen is "All Types" (not "Singing Call" or "Hoedown") – you probably do NOT want automatic looping or lyric displays when you are using the Jukebox.

Recording

SqView can record your dance as you're calling, even as you're using SqView to play the music at the same time. You'll need to connect a second line-level (or microphone-level) cable from your mixer or amplifier to the appropriate line-in or microphone-in jack on your computer.

If your computer uses the same connector for both line-in and line-out, you won't be able to use this feature unless you play your music through an external USB sound card.

NEVER CONNECT A CABLE FROM THE QUARTER-INCH SPEAKER OUT JACK TO YOUR COMPUTER! The output from an amplifier that is used to drive unpowered (traditional) speakers can produce up to 90 volts at several amps of power. That would be like connecting a wire directly from a wall-socket electrical cord straight into the sensitive electronics of your computer. You'll learn the hard and expensive way that when smoke comes out of the chips, they won't work anymore.

Use the View / Music Recording menu item to display the recording window. The button with a red dot begins the recording; the green triangle will play the file you just finished recording. You can have SqView automatically start and stop recording as your music starts and stops.

Each recording will be saved into a separate disk file in a directory of your choosing, with file names that either include the date and time or else has a prefix that you enter and a sequence counter (1 through whatever).

Of course, other programs could be used at the same time as SqView to do this recording, or even other computers. But it is convenient to automatically start and stop the recording as you start and stop music... but if you do that, you won't get any talking or announcements made when the music is off.

Equalizer

SqView has controls directly on the main music panel to adjust the pitch and tempo of the music being played. It can also adjust the bass, midrange and treble of the music (just like turning the knobs on your mixer or amplifier), but there generally isn't enough room on the main music screen to show those controls all the time.

If you want to use SqView to make those adjustments, click on the View / Music Equalizer menu selection to show the equalizer window. In addition to the slider controls for Base, Midrange and Treble, there are also sliders for the "master volume", "master tempo" and "master pitch". These three controls are called "master" controls because they will apply to all music files played, not just the current music.

BIG Music Control Buttons

We previously mentioned the "Music Control" panel. Click on View / Music Control to open another window with large, simple buttons to control the music. You can start this music over from the beginning, play and pause the music, skip to the next song in the queue, show the lyrics (if they aren't shown automatically), fade the music out or in, and change the tempo (faster or slower).

You can make the buttons even bigger (or smaller) by changing the size of the window – grab a corner and drag it to make the window larger or smaller.

This is particularly useful for touch-screen computers or if you have a tough time making precise mouse click.

Square Identification

Having troubles remembering corners? Click View / Square Identification, and a window will open that allows you to type in words about each dancer in a square, or even choose colors for each of the dancers.

Karaoke

SqView can display lyrics in a karaoke format: Large words with a colored marker smoothly scrolling in time indicating exactly when each individual word should be spoken or sung. These karaoke lyrics are completely unrelated to the typical lyrics or cuesheets displayed as you start music – there is nothing that will automatically display a standard cuesheet in karaoke format.

Karaoke files are created in a "Compact Disc + Graphics" (.cdg) format. Raw music CDs have a small number of extra "unused" bits scattered throughout the data on the CD, and someone invented a way to encode words and letters inside those extra bits. That meant that specialty CD players could extract those extra bits and display the words and letters on a screen in time with the music – and automatic Karaoke was born.

A quick Google search shows that there are a number of CDG editing programs out in the world; some are likely free and some likely cost money. But the general idea, if you chose to use this, would be that you would use a CDG editor program to write the text and time it to the music, then save the CDG file with the same name as your MP3 music file, and store it in the same directory (right next to the MP3 file).

When SqView sees a CDG file in the same directory with the same name as a music file it can play, then that scrolling text can be displayed when the music starts, just like a lyrics window is displayed.

Some of the callers in the Facebook "Software for Callers and Cuers" group say that they prefer to use CDG files to scroll the lyrics to their singing calls. Other callers use it as a normal Karaoke player for party nights and other special events.

Typical Errors

No Sound

You turn on your computer, open SqView, and tell it to start playing a piece of music. You don't hear anything, or else it doesn't sound right. What could be wrong?

There are so many choices...

- There is a "VU Meter" (a volume meter) just to the right of the music title and queued music list. A colored bar should be bouncing up and down; green on the bottom half, yellow or red towards the top. If that's not moving, then either you really didn't get SqView to start playing (perhaps you didn't click the right button), or else SqView can't get the sound to play through the sound card.
 - If the problem is the sound card in the computer, you might have to power off the computer and reboot.
- Are you seeing just one tiny beat repeating over and over? Perhaps hearing only the
 first tenth of a second of music or so, repeated over and over? This is another symptom
 of a problem with the computer's sound card. Turn it off (power it down) and start it
 back up again. This sometimes happens with computers that are normally "hibernated"
 instead of completely powered off after every use.
- Are you hearing sound coming out of the computer speakers instead of the amplifier?
 You probably plugged the cable into the wrong jack, or it's not plugged in completely.
- Some computers use the same jack for music coming into the computer as they do for
 music going out of the computer. Those computers normally ask you what type of cable
 was plugged in every time you connect a cable. Make sure you didn't choose the wrong
 answer for that question if you told it that this was a line-in connector instead of a
 line-out connector, the computer would play through the speakers.

If the VU meter is bouncing up and down normally:

- Check the volume slider on SqView's music page. 70% is a pretty good number.
 0% would be bad. 100% causes the sound to distort on some computers.
- Check the speaker volume in Windows, normally using the speaker icon on the task bar or in the Windows control panel. Make sure that the "mute" checkbox is not checked.
- Check the "Output Device" in SqView: Options / Select Output Device. This step is usually needed when someone plugs in a USB connector after SqView is already running they have to open this device selection window and chose the USB output, or else

restart SqView.

- Check the cable from the computer to the amplifier. Cables break. Disconnect the cable

 can you play the music through your computer speakers? If so, the problem is likely to
 be either with the cable or further down the line.
- Check the volume on the mixer (and amplifier, if you're using a separate one). Don't turn the volume ALL THE WAY UP you'll just get a nasty surprise when you finally fix whatever is wrong. Is the mixer and/or amplifier turned on?
- If you're using a Hilton MA-220... is the red MUTE light turned on? (This one got me for quite a while one night, because the MA-150 has a red light in about the same place that indicates that the power is on. So I was conditioned to ignore a red light, instead of expecting the MA-220's green light...
- Does your microphone work? If that doesn't work either, it's probably something in the mixer, the amplifier, the speaker cable or the speaker itself. Is the speaker cable connected? Using a powered speaker? If so, is the speaker's power on?

Music Fuzzy / Muddy / Blurry / Too Much Bass

This is never a problem with SqView itself – either the recorded music itself is bad, or something is distorting the music along the way.

- If SqView's volume is set to 100% (or the Windows volume is 100%), your computer very well may be over-driving its sound card. Try turning the volume down in SqView or on the computer, and using the amplifier to make it louder instead.
 - If this happens to you, use the Options / Music / Music settings to control this. Set "Maximize Volume on Start" to False, and "Default Volume %" to something like 70%. Then restart SqView.
- Is this piece of music something that was recorded from a record? Especially if recorded from an older Hilton turntable? The Hilton sets that don't have an 1/8th-inch or RCA "music out" jack simply use the signal sent to the speakers, albeit at a lower voltage level. These set emphasize the bass when they play music; if you record the music with that stronger bass then play it back through that same Hilton (which will emphasize the bass yet again), the resulting sound will be terrible: people describe it as muddy or fuzzy.

If you must record on that particular Hilton, try turning the bass down (perhaps all the way) when you digitize the record. Then, when you play it back through the computer and that same older Hilton, it will sound somewhat better.

"Bass Error 5" - Cannot open or read file

If SqView is remembering the name of some music file (probably from within a Playlist) and that music file is deleted or moved to a different location, then you can get a "Bass Error 5" when you try to play that music.

"Bass" is the name of the software that SqView uses to actually talk to the sound card on the computer; error number 5 means that the Bass library cannot open the requested file.

We have also seen this problem when the file name contained certain punctuation characters (like a double-quote character), or perhaps the file name contains a character from some other language.

Music Skipping

Most digital music is recorded at 44,100 "samples per second". Think of it this way: the position of the speaker cone needs to move in and out to make the sound waves we hear; the music file contains 44,100 different speaker cone positions for every second of music. That's a LOT of data.

While the computer is sending all of this data to the sound card (which converts those digital positions into electrical pulses on the cables), it also has to do things like display the lyrics, pay attention to you clicking keys, switching windows, etc. So the software sends a bunch of music samples to the sound card at once – often one or two or three seconds worth of sound so that if the computer gets distracted doing something else, then the sound card can keep playing until more samples arrive.

This extra stuff sent early is stored in a "buffer" inside the "Bass" software: the computer fills the buffer at one end while the sound card trickles the data out of the buffer from the other end. Think of the buffer like a big barrel holding water: We can occasionally add water to the top while steadily pouring a trickle out of the bottom.

The default Bass buffer size is 8 tenths of a second (800 milliseconds). That means that the computer can be busy for as much as, say, $\frac{3}{4}$ of a second before it really needs to hand off another second's worth of music.

On some computers, especially when they are searching for WiFi networks, this buffer of 8 tenths of a second isn't big enough. If the buffer is too small and the computer is too busy, then the buffer can run out of music and there will be a brief pause until the computer gets around to adding more music to the front of the buffer.

If this happens to your computer, consider changing the BASS Buffer setting in Options / Music / Music. Increase the number from 800 (milliseconds, which is 8 tenths of a second) to some larger number like 1000 or 1500 or 2000.

You may also want to put your computer in "Airplane Mode" while calling, especially when running on battery. Not only will that keep your computer from searching for WiFi networks (which can keep the computer surprisingly busy in a place with poor network connectivity), it will make your batteries last longer.

Lyrics Don't Appear

We talked about that earlier in this paper.

- Check the "Type" of the listbox (in Options / Music / Listbox 1, 2 or 3; it should be "Singing Call" for this list).
- Make sure the last, yellow button above the listbox is not showing a red slash
- Make sure that the "Lyrics Play" button is depressed, showing a green checkmark
- Make sure that SqView knows what lyrics to show for this particular song: Use Tools / Marry Lyrics to see what it thinks, and fix it if necessary.

Looping Doesn't Happen Automatically

We talked about that earlier in this paper.

- Check the "Type" of the listbox (in Options / Music / Listbox 1, 2 or 3; it should be "Hoedown" for this listbox).
- Check the custom music settings for this particular file using Tools / Music Manager: make sure there are loopstart and loopstop values for this music file.
- Check that the loop checkbox is getting checked automatically.

Help File Doesn't Open

Some Windows systems don't like to open help files that have been downloaded across the Internet. If this happens to you, double-check that the file "SqView.chm" exists in the SqView directory. If not, you might need to download all of SqView again to get the file.

If the help file IS there, right-click on it and choose "Properties". Look for a button labelled "Unblock" near the lower right corner of the properties window; click on that button to allow the help file to be opened.

Advanced Topics

Running from a USB Drive

SqView can be run entirely from a directory on a USB stick.

The best way to do this is to keep all of your music and cuesheets in directories within the SqView directory itself; for example, keep your music folders in SqView/MP3/<various folders>, and your cuesheets in SqView/Text. Once you have everything arranged that way (and your playlists and cuesheet marriages have been updated to the new structure), then you have one option to set: In Options / Music / Global, set "Change to current drive" to True.

Then you can simply copy SqView and everything underneath it to the USB drive.

You can then insert that USB drive in some other computer and start SqView – it will notice what disk drive it's running on, and change all of the paths in all of the files (playlists, cuesheet marriages, choreography lists, etc.) to use THAT drive instead of the original drive letter.

Fixed BPM / Fixed Pitch

If you wish, you can have SqView alter the tempo (in beats per minute) for every piece of music to a value that you select. Use the Options / Fixed BPM menu selection to choose the desired rate (from 122 to 132). You will have to specifically enable this BPM change on each of the listboxes individually – it won't apply at all unless it is explicitly enabled for a listbox.

As you start playing each music file, SqView will look at that file's BPM setting (or inspect the music inside the file to guess at the beats per minute), then proportionally increase or decrease the tempo of that song to your selected rate.

In order to do this correctly, SqView needs to have accurate BPM settings for each of the music files – sometimes the inspection of the music can be off, perhaps even by a factor of two. So be careful in using this feature, and check to make sure each piece of music sounds correct.

Similarly, you can select a specific pitch change (higher or lower) to be automatically applied to every music file that is played. Again, you must explicitly enable this for each listbox using the Options / Fixed Pitch menu selection.

Special Sounds

You may have one or two "special sounds" you wish to you, such as an announcement fanfare. Using the Options / Music / Play Music 1 and Play Music 2 settings, you can set one music file to play when you press Function Key 8 (F8), and a different one when you press Function Key 9 (F9). We suggest using relatively short sounds (just a second or few in length) for this, not entire songs.

Tracking Music Use

SqView can keep a record of every piece of music played at every dance you call. This tracking feature is enabled when you depress the "Tracking" button on the main music page (just to the left of the clock).

When you start tracking, you'll be prompted for a dance name. Every piece of music you use from that point on will be associated with that particular dance until you turn tracking back off.

To see the list of music you've used, click on Tools / Track Manager. You'll see a list of music with dates and times, the dance name, and the listbox from which it was started (so you'll know if you used it as a hoedown or a singing call). You can export your tracked list of music to a spreadsheet program (or import that CSV file into a larger database of your own design, if you wish).

Exporting that data into a spreadsheet or database would then allow you to search for what you used at some particular club or area so that you know to avoid repeating the same music in the same place. Or you can statistically analyze the music you use to deliberately find music that you haven't used frequently... and remember to use that more in the future.

Markers and Playback

Some people use SqView for "tape groups" – playing previously recorded material to use in workshops, practice, or even teaching situations. In these cases, it can be useful to mark specific locations within a recorded session, such as the beginning of each sequence, and to be able to return to those marked points at will.

The marker system is enabled by depressing the "Markers" button on the main music screen, and the list of markers will visually replace the loop values. Various keys on the keyboard will set the marks and skip forward or back to the various marked locations. If the "Automem" checkbox is checked, those marks can then be saved for future use.

These tape groups often use a wireless device that triggers the keystrokes within SqView: often a low-power radio frequency transmitter on a dancer's belt that transmits to a small USB-connected device with an antenna. Buttons on the remote device can be mapped to individual keys on the keyboard, which allows remote operation of SqView. See Keith Rubow's RF Remote Control System (http://krubow.com) for an example.

Multi-Level Cue Sheets

Callers normally build dance figures into their cuesheets and many callers will use the figures displayed. But what happens if the caller wants to use the same music at Mainstream and at Plus dances? Or even at Advanced or Challenge dances?

SqView allows you to create a separate cuesheet for each dance level, if you wish, and it will automatically search for a level-specific version of the lyrics before falling back to use the generic version.

To do this, first set "Options / Lyrics / Separate folders for each level" to True, and create separate directories to hold the cuesheets for each of your desired levels. Then, in Options / Choreography, set the "Path Level Lyrics" setting to the appropriate directory for that level. You can then do the work to create your level-specific cuesheets as you wish.

As you go from dance to dance, you can use the File / Change Level menu selection to indicate which level should be used.

Finally, you may also wish to set Options / Lyrics / Search all directory levels to True, so that if you happened to have a Plus-level cuesheet but not a Mainstream-specific version, it could still show the Plus level version as a guide.