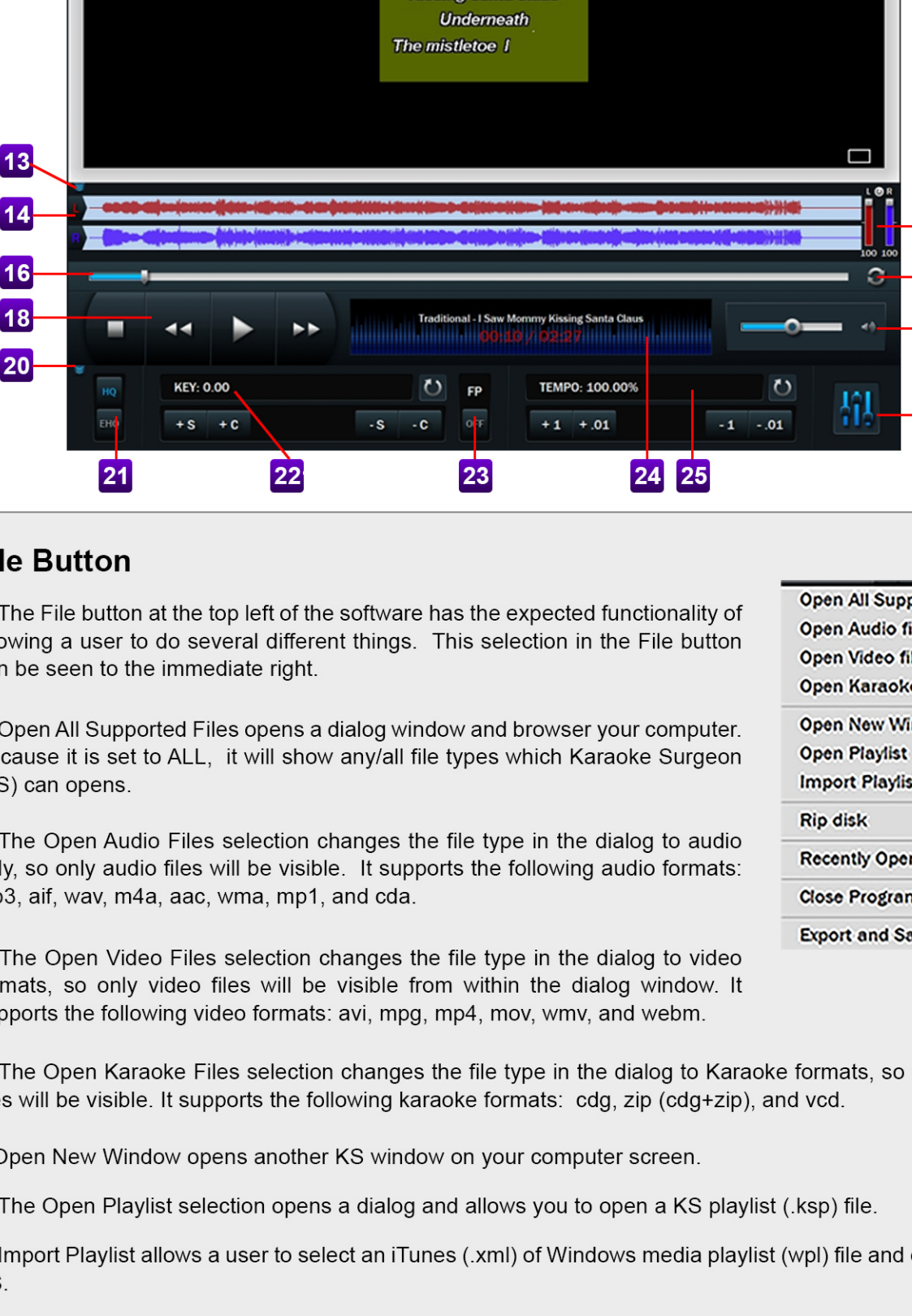


Karaoke Surgeon

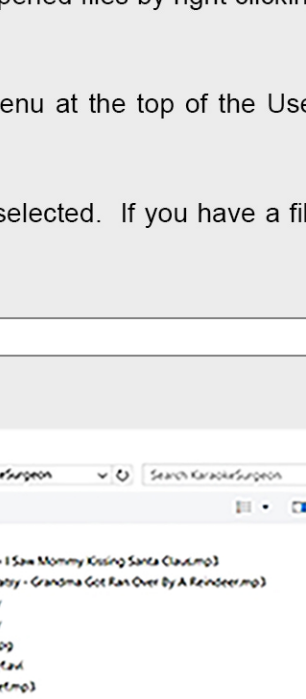
User Guide

In addition to this User Guide, we strongly suggest that you view the Training Videos. These two resources, used together, will answer most of your questions and enable you to come up the learning curve quickly



1 File Button

a. The File button at the top left of the software has the expected functionality of allowing a user to do several different things. This selection in the File button can be seen to the immediate right.

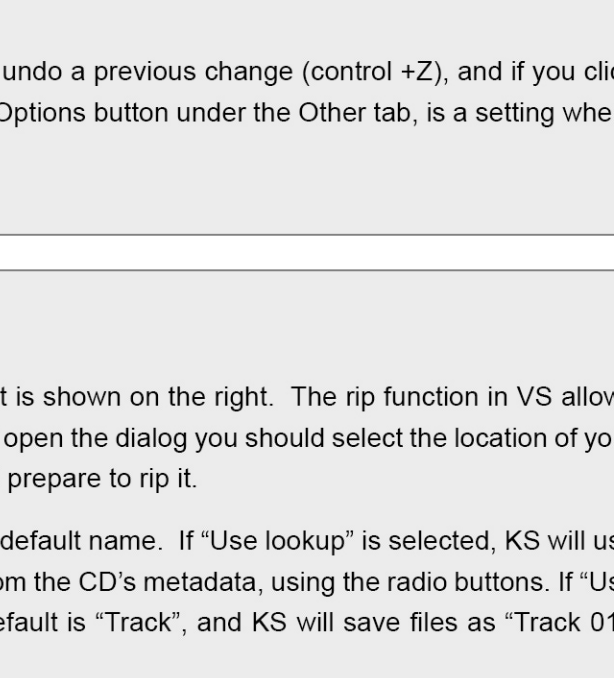


- b. Open All Supported Files opens a dialog window and browser your computer. Because it is set to ALL, it will show any/all file types which Karaoke Surgeon (KS) can opens.
- c. The Open Audio Files selection changes the file type in the dialog to audio only, so only audio files will be visible. It supports the following audio formats: mp3, aif, wav, m4a, aac, wma, mpeg1, and cda.
- d. The Open Video Files selection changes the file type in the dialog to video formats, so only video files will be visible from within the dialog window. It supports the following video formats: avi, mpg, mp4, mov, wmv, and webm.
- e. The Open Karaoke Files selection changes the file type in the dialog to Karaoke formats, so only karaoke files will be visible. It supports the following karaoke formats: cdg, zip (cdg+zip), and vcd.
- f. Open New Window opens another KS window on your computer screen.
- g. The Open Playlist selection opens a dialog and allows you to open a KS playlist (.ksp) file.
- h. Import Playlist allows a user to select an iTunes (.xml) of Windows media playlist (.wpl) file and open it within KS.
- i. Rip Disk open the ripper dialog window within KS and allows you to rip an audio CD, a CD+G, or a VCD disc. More details about this function are available in Section 6 of this document.
- j. Recently Opened Files shows you a list of your recently opened files. You can control the number of files displayed here in the Options button of the software. You can also see recently opened files by right clicking the Open button.
- k. Export and Save Changes is the same function that is found in the Export menu at the top of the User Interface (UI). This options is displayed in more detail in Section 3.
- l. The last option in this File menu is Close Program. It close the program when selected. If you have a file open in the software it will prompted you a second time before closing.

2 Open Button

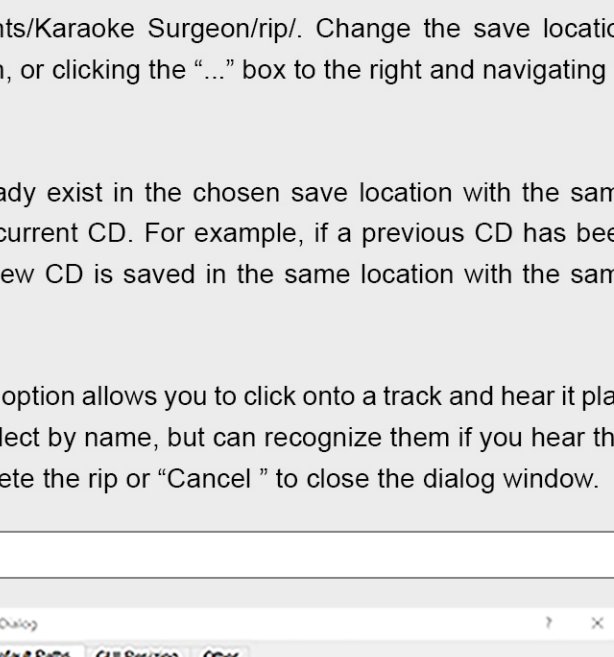
The Open button opens a dialog window that looks like this. By default, the All Supported Files are selected. This dialog is the same one that is opened if selections 1a – 1d are made.

The default location for the path shown in this dialog window can be changed in the Options button of the program.



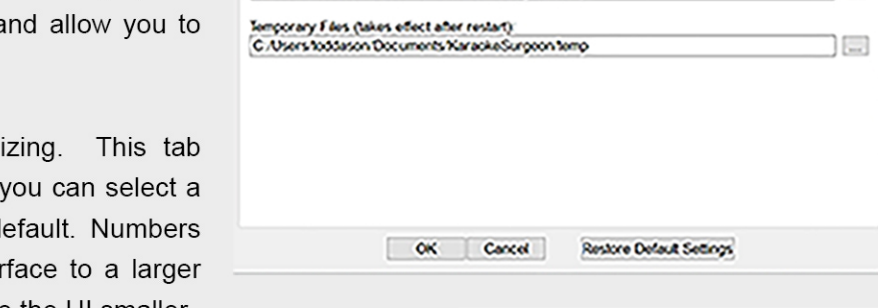
3 Export Button

3. The Export option is used for saving changes made in KS in a new file. KS can modify the key, tempo, EQ, and formants in a file or song, and on Export those changes become permanent and are stored in a new file. When you click the Export button, the dialog opens will by default insert the same file type and name of the file you have open. You may rename the file and select the file type you'd like to create.



4 Playlist Button

The Playlist button opens a drop down with several selections.



5 Undo/Redo

Undo \ Redo is a dual button. If you click the Undo side it will undo a previous change (control +Z), and if you click the Redo (control + Y) it will redo a previous changes. In the Options button under the Other tab, is a setting where you can control the number of Undo/Redo steps.

6 Rip Button

The Rip Button opens a rip dialog window that looks like what is shown on the right. The rip function in VS allows you to rip audio CD's, CD+G discs, and VCD discs. Once you open the dialog you should select the location of your CD drive. Once done, VS will auto-detect the type of disc and prepare to rip it.

Karaoke Surgeon will either look up the track names or use a default name. If "Use Lookup" is selected, KS will use the website freeb.org to find the track names or read them from the CD's metadata, using the radio buttons. If "Use lookup" is deselected, KS will use a placeholder label: the default is "Track", and KS will save files as "Track 01", "Track 02", and so forth.

Please note that if the list of tracks is blank or empty, it is likely because you have selected "Use Lookup" and there are no matches for this CD in the database. If the Track Name section of the dialog is empty, please deselect "Use Lookup" and you should then see a list of tracks appear.

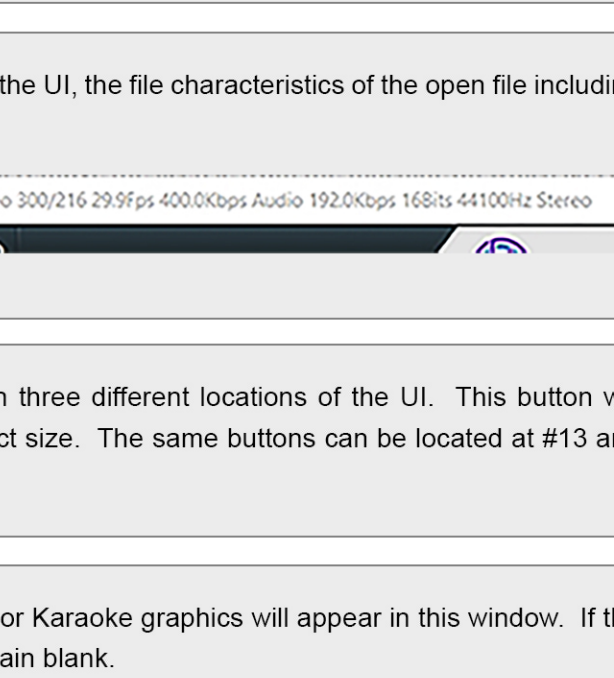
The default save location is C:/Users/User_Name/Documents/Karaoke Surgeon/rip/. Change the save location either by clicking the location box and typing in a new file path, or clicking the "..." box to the right and navigating to the correct location.

Overwrite existing files is deselected by default. If files already exist in the chosen save location with the same name, this option will overwrite them with the tracks on the current CD. For example, if a previous CD has been ripped with the default of "Track 01, Track 02," etc., and a new CD is saved in the same location with the same default track title, the new tracks will replace the old ones.

Automatically play the selected file is deselected by default. This option allows you to click onto a track and hear it play. This is helpful if you don't know which track(s) you want to select by name, but can recognize them and hear them. Finally, select "Rip Tracks" at the top right hand side to complete the rip or "Cancel" to close the dialog window.

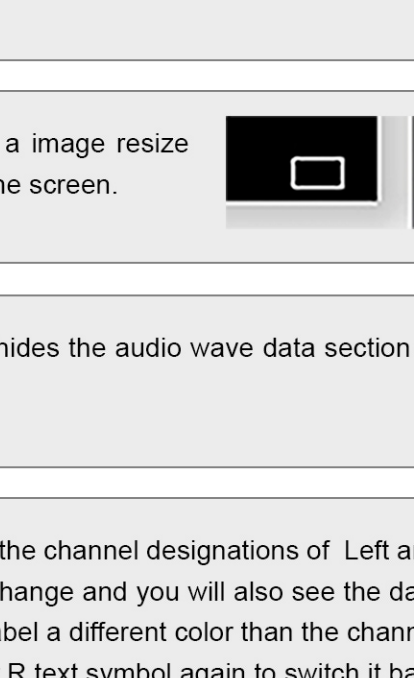
7 Option Button

The Options Button opens the dialog window shown to the right. This window has three tabs within it. The first tab contains default paths. These folders are created by default when the program is installed on your computer.



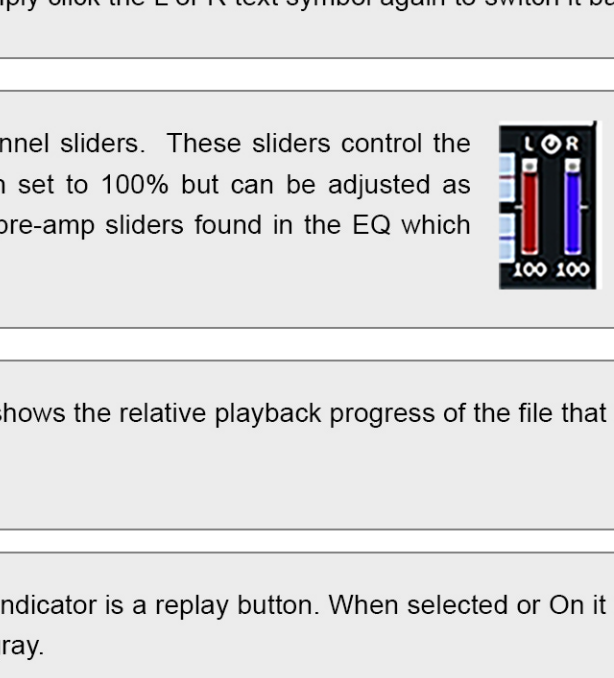
You can change these paths by editing directly on this page or you can click the button on the far right, with three dots which will open a window and allow you to browse to select a new location.

The second tab is labeled GUI Resizing. This tab displays a drop down field from which you can select a different value, other than 1.0 which is default. Numbers larger than 1 will resize the User Interface to a larger size. Numbers smaller than 1 will make the UI smaller.



Once you have select a value, click OK and the UI will resize immediately. If you not satisfied with the new size, select a different value and try again.

The third and final tab in this window is labeled "Other". This tab contains miscellaneous setting for KS that can be customized. Here is what you see when you open this tab.



If you want to send AV to something other than your computer, you can select another output device that is connect to your machine.

The second option is a setting for the default audio algorithm. By default it is set to HQ. In most cases you will want to leave it there. See Section 21 of this document for a more detailed discussion of algorithms. Formant preservation is by default set to off. You can change the default setting on. See Section 23 for a more detailed discussion of formants and when this should be used.

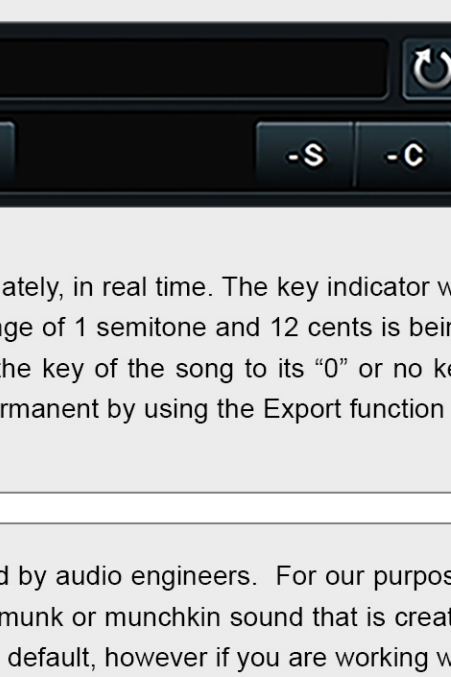
If you have a preferred file format you want or need to use when creating new files, you can set that format here. It is blank by default, which means that on Export the dialog window will insert the same file format as the file open in KS. If you select a format here, this file format will become the default file format on Export that will appear in the Export dialog, though you will still be able to manually over-ride this selection and choose an alternative format in the dialog window.

Autoplay is the facility that plays the audio of a file when you select a file within a dialog window, before the file opens. This allows you to preview a file and determine if it is the one you are looking for. By default this is selected. That means that this function will be enabled in every dialog window that (rip, open). You can turn this off from a dialog window or you can turn it off by default for all dialog windows by deselecting this option.

The last setting is for the number of recently opened files that KS saves. By default this is set to 10, but you can change it to a minimum of 1 and maximum of 99.

8 Help Button

The Help Button of KS contains a number of selections. We'll review these briefly one at a time.



The Help Desk selection will take you directly to our 24/7 Help Desk.

The Training Video selection is linked to the training videos page on KS site that contains a series of video demonstrations of the product.

The User Guide selection in this button is linked directly to this page that you are now reading, which is the KS User Guide.

used in our system (in your My Account page). It also contains other legal and ownership information.

Deactivate Machine is an option that will remove the license from the machine on which KS is installed where you deactivate that option. This is something you should do if you are want to install the program on a different machine.

Offline Registration is a method of activating the software used ONLY for machines that cannot be put online. This option is only used in conjunction with the Help Desk. If you need to activate a machine that is offline, please contact the Help Desk and they will assist you with this issue.

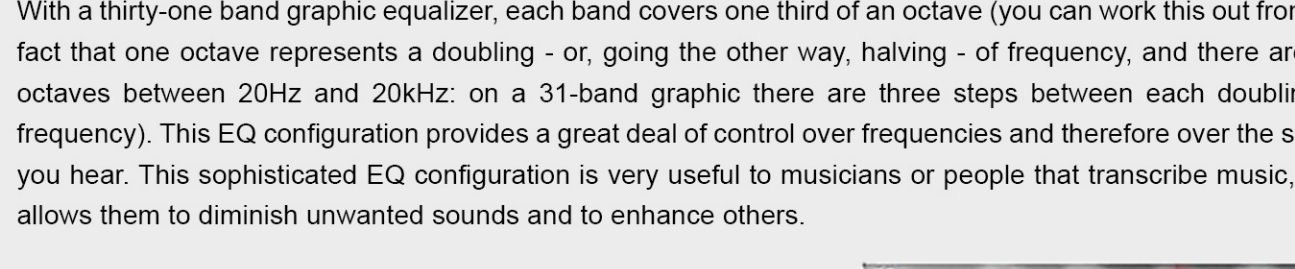
Check For Updates will tell you if there are any updates to the current version of KS you are running.

Roll Back Update will return your machine to the previous version you had, prior to your running the update. You may want to roll back if for some reason the program doesn't run correctly with the new build.

Logging On/Off is by default turn off. If you have an issue with KS our support staff may ask you to enable this feature. When it is enabled, KS will log the operations of the software and this will help us diagnose potential problems. The Show Logs option, opens the folder where these logs are stored for easy access.

Select About will show you the current version of the software installed on your machine. It also displays your machine name or identifier as

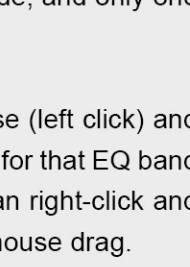
9 When you open a file, KS displays here, at the very top of the UI, the file characteristics of the open file including file type, bit rate, fps, and other file specifications.



10 This little button is a collapse button. It can be found on three different locations of the UI. This button will collapse or hide parts of the UI to provide a more compact size. The same buttons can be located at #13 and #20.

11 This is the main video screen for the software. The video or Karaoke graphics will appear in this window. If the file you have opened is an audio file, this window will remain blank.

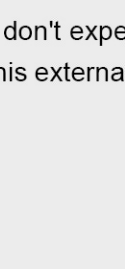
12 This small rectangle in the lower right hand side of the video screen is a image resize toggle. When you click it, it will increase the size of the image or text on the screen.



13 This is the same small collapse button discussed in #10. It collapses or hides the audio wave data section of the UI.

14 Right is the plotted audio data for the open file. On the far left you can see the channel designations of Left and Right. If you click either the L or the R, you will see the color of this text change and you will also see the data in LR channel change. Anytime you see the color of the L or R channel label a different color than the channel data, you know the channel data has been switched. Simply click the L or R text symbol again to switch it back.

15 On the right side of the channel data are two small channel sliders. These sliders control the volume sent to each channel. By default they are both set to 100% but can be adjusted as desired. These channel sliders are integrated with the pre-amp sliders found in the EQ which controls the levels.



16 This area of the UI is the progress indicator. The thumb shows the relative playback progress of the file that is opens in the program.

17 This circular arrow at the right hand side of the progress indicator is a replay button. When selected or On it is highlighted in blue, when off it is in the default state and gray.

18 The playback controls consist of the following items. On the right is the Stop button. In the center is an forward arrow which is a play button, that when click starts the song playing and then toggles to a light blue pause button. If clicked again the song is paused at its current playback position. The double arrows left and right are Fast Forward and Fast Rewind arrows. With each click the move in 5 second increments.



19 This slider controls the volume of the file that is playing. On the right hand side of the slide is a volume symbol which, if clicked, controls in shape and color and mutes the song completely.

20 The bottom Effects Area of the UI can be hidden using this small blue collapse or hide button.

21 The default audio algorithm is the HQ setting. A second, slightly higher quality setting, EQH, is available. If you have a good quality file to start with, the HQ setting should give you high quality distortion free audio reproduction. The EQH may be slightly better but it will require a significant amount of your CPU and memory resources. In fact, it is common that if the HQ EQ setting is selected playback in real time may be a problem, because the processing cannot keep up with the playback. However, if you export and create a new file, the newly created file will have the changes embedded in it that you made on the screen and once it is created it will playback normally in any audio player.

22 The key area of the UI has two settings. The first is labeled +/- S for changing the key by a semitone or 1/2 step at a time. The second button is for cents. This will change the key of a song by 1/100th of a semitone. The change of a cent of several cents is such a small change that most people cannot hear the change. As you change the key of the song you will hear it immediately, in real time. The key indicator will show you what the current change is. For example 1.12 means a change of 1 semitone and 12 cents is being applied. The circular arrow found in this area is a rest and returns the key of the song to its "0" or no key change. Any key change that is made in the program can be made permanent by using the Export function to create a new file.

23 FP stands for formant preservation. Formants is a technical term used by audio engineers. For our purposes here, the FP switch eliminate or at least reduces vocally the chipmunk or munchkin sound that is created when the key of a song is changed that has vocals. FP is turned off by default, however if you are working with a song that has vocals or background vocals and are changing the key more than 1/2 step you should turn the FP switch on to preserve the formants and eliminate these unwanted vocal artifacts. If formant preservation is turned on it will be applied to the file as it is being exported, preserving the formants, so the new file will sound exactly like it did when played in the KS before exporting it.

24 The LCD type display shows the name of the file being played, the total length of the song, and the elapsed time.

25 the section of the UI is for the changing of tempo or the speed of the song. The controls in this area allow you to change the song in 1% increments or in .01% increments. Like key, as a song is playing and you make any change in tempo you will hear it in real time, and it will be shown here as a percentage change. By default when you open a file, it will play at the normal speed which is 100% of the original. If you wish to slow a song down reduce the tempo to a value lower than 100%, if you need to increase tempo or speed, increase the tempo to a value over 100%. The circular arrow found in this area is a rest and returns the tempo of the song to its default or 100%. Any tempo change that is made in the program can be made permanent by using the Export function to create a new file.

26 This small symbol is for KS's 31 band EQ. When you click this graphic the EQ will open and it should work something like this.

Click the Equalizer button below the main controls to open the EQ window. The preamp band is at the far left by itself. Use this to adjust the preamp volume. Below the preamp band, at the bottom left of the Equalizer window, there is a lock icon; click the lock to separate the equalizers for the left and right channels. By default the two channels are locked together. Any adjustments made while locked will be made to both channels of data simultaneously. Please note that this lock/unlock feature applies only to the EQ bands, it does not apply to the pre-amp sliders.

The EQ bands can be adjusted in any of four ways:

1. Click and drag on a slider to move it up or down.
2. Right-click in the track, above or below a slider, and the slider will snap to the cursor position.
3. Right-click in the gray area between any two slider grooves and release. Then move your mouse left and right or up and down, and you will see the EQ bands follow the movement of your mouse. This is an easy way to adjust multiple bands very quickly. Right click again, in the gray area between the slider grooves, and this functionally will be deactivated and the EQ bands will remain where you placed them.
4. Hold the control key down, and click on a band or a group of bands; then use the up/down arrow keys to adjust the group.

For ease of use, the EQ bands are color-coded; the default position is gray. When a band is set above zero (0) the adjustment slider turns green, and when any band is set below default the slider turns red. At the right of the EQ window is a preset menu, which can be used to select from a range of preset EQ options. Click on any of the options to use it.

The three buttons at the bottom, right edge of the EQ window are used to modify EQ settings. When a desired setting is reached, use the top, green checkmark button to save a preset. Use the middle button, with a red X, to delete a preset; use the bottom button to modify an existing preset. Default presets cannot be deleted or modified.

It is important to note that EQ can be applied either to the entire audio file or to a particular loop. The EQ for a loop can be accessed in the Loop Edit menu; only presets are available. If you have a custom EQ configuration that you want to apply to a loop, you will need to create and save as an EQ Preset to be able to do that. EQ settings are saved with Karaoke Surgeon project files, and applied to any audio files that are exported from Karaoke Surgeon.

With a thirty-one band graphic equalizer, each band covers one third of an octave (you can work this out from the fact that one octave represents a doubling - or, going the other way, halving - of frequency, and there are ten octaves between 20Hz and 20kHz: on a 31-band graphic there are three steps between each doubling of frequency). This EQ configuration provides a great deal of control over frequencies and therefore over the sound you hear. This sophisticated EQ configuration is very useful to musicians or people that transcribe music, as it allows them to diminish unwanted sounds and to enhance others.

In Karaoke Surgeon, this 31 Band EQ comes loaded with more than 60 presets that have been custom-built on an instrument basis. The list of instruments is not comprehensive, but we have included the most commonly played instruments in this list of presets. For each instrument, we have a preset designed to enhance that instrument as well as diminish that instrument. These are not perfect, as every song has a different mix of instruments and frequencies and, not only will one size not fit all, EVERY song is likely to require customization of the EQ preset to best work for that song. Nonetheless, these EQ presets are helpful starting points. The Pro EQ allows you to create new custom presets and delete them. Unlike the Standard EQ, the 31 band found in Pro allows you to apply the EQ to either of the two stereo channels or to both.

To make this EQ compact, we did not label all of the bands, but by hovering your mouse over any slider you can see what band it is for. Also notice here on the left side that we have a pre-amp that can be used to increase the volume. This is especially useful when you are cutting bands and you need to pump up the volume to hear the remaining frequencies.

Notice that the gain is +30dB and the cut is -60dB. Please note that if you increase the gain substantially it is likely that you will introduce clipping and distortion. Also note that if you cut a band significantly, you will reduce the volume substantially. Notice the color coding -- when flat, the sliders are gray; when boosting, they are green; when cutting, they are red, and if they are turned OFF, they are BLUE.

There is a lock icon here in the middle. When turned off, you see sliders for both left and right channels, and these sliders can be moved independently. When locked, the bands for the channels move together and whatever you do to one, you do to the other. In the locked state, the EQ goes into a mini mode, and only one set of bands is visible and necessary for the locked channel adjustments.

Bands can be adjusted in several ways. The first way is by grabbing a slider with your mouse (left click) and moving it up or down. A second way is to click or click and hold the mouse in the groove for that EQ band -- it will move incrementally up or down. If you want to move multiple sliders at once, you can right-click and drag your mouse across a series of bands, and the sliders will move to the location of your mouse drag.

Lastly, for fine tuning, you can select bands by holding down the control key + clicking with your mouse on a band. You can select one or multiple bands. Once you have selected the EQ bands of interest, you can then nudge them up or down (for fine tuning) using your up and down arrow keys.

The last area to review regards the presets. System presets cannot be modified or erased. However, you can create new presets based upon the existing ones by selecting a preset, modifying it to meet your needs, and then saving it with a new name. To create a new preset, you click the button with the green + sign, give it a name, and the click okay -- this will create a new preset. If you want to save this new preset permanently so that it stays in the list of presets, you must click the button with the BLUE arrow to save it. The delete button will allow you to delete ANY custom preset, but it will NOT allow you to delete System presets.

If you right click in this preset area you will see some additional selection appear. These selections will enable you to sort the list, or filter the list, so that you can get the group of presets on your screen that you would like to use. To refine your list further, you can also use the hide/view button to hide or remove presets from the visible list. Once you have refined your list of presets, you will need to click the SAVE button (blue arrow) to save this list of presets so it loads the next time you open SS.

Lastly we will discuss the EQ-B button (which is the EQ bypass button). If you have a song open and playing in KS and you have EQ applied to it, selecting the EQ Bypass and toggling it on will ignore the currently applied EQ and the song will continue playback with no EQ applied. Note that when you do this, the buttons become blue and inactive/you can't move them. When you toggle the bypass off, the EQ is again applied to the file and the buttons are re-activated.

EQ is a topic that can be very complicated. There are entire courses in college dedicated to it, so don't expect to master the use of this 31 Band EQ overnight. If you'd like to learn more about EQ, we refer you to this external site which provides an excellent overview:

<http://www.zytrax.com/tech/audio/equalization.html>

27 Karaoke Surgeon employs a number of keyboard shortcuts to simply the operation of the software. Please review the list below and familiarize yourself with them.

Open File	Ctrl+O
Save/Export File	Ctrl+S
Open/Import Playlist	Control + P
Rip Disk	Control + R
Open New Window	Control + N
Close Program	Control + X
Undo	Ctrl-Z
Redo	Ctrl-Y
Scroll Progress Indicator	Mouse Wheel
Show Recently Opened Files	Right Click -- Open Button
Play/Pause	Space Bar
Move Position Needle to Start	H