

Kaleidoscope version 2.2

Congratulations! You now have a fantastic, colorful, and beautiful screen saver for Windows. If you have a sound card in your computer, you can choose to have the kaleidoscope flow and change in time to your music. The music controls various parameters, making strikingly beautiful patterns that would never be possible by just adjusting the given parameters. The audio being monitored will continually adjust the kaleidoscope. See the [Audio](#) section for more details.

Checking the box to the right of a control will cause the kaleidoscope to choose that value at random each time a design is run, and during each restart. When the *Restart* time elapses, a new pattern is chosen based on the control settings.

The kaleidoscope can be controlled by the following parameters:

<u>Symmetry</u>	<u>Coloring Rotation</u>
<u>Spin</u>	<u>Snazziness</u>
<u>Line Size</u>	<u>Bands</u>
<u>Trail Length</u>	<u>Band Width</u>
<u>Speed</u>	<u>Polite</u>
<u>Rotations</u>	<u>Audio</u>
<u>Cheese Size</u>	<u>Favorites</u>
<u>Depth</u>	
<u>Free Floating</u>	
<u>Splitting</u>	

Please send **\$15** or **\$25** to:

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If you like the Audio feature, and find your CD collection now has a whole new meaning, send in **\$25**, otherwise send in **\$15**. If you think I am asking too much for your use of my program, then send less (whatever you *do* think it's worth), along with a short explanation of why you thought it was not worth my asking price, and I will still consider you a "Kaleidoscope User". I currently am developing on a 386-25, and am trying to save up enough to get a 486 (or Pentium if the price drops enough). A faster computer means more software like this in the future, so think of it as an investment. I'll be sure to let you know of upcoming programs if you wish to see more software like this.

I look forward to hearing from you about what you think of this screen saver, and the concept of a music controlled kaleidoscope. If you find yourself entranced by the ever-changing patterns of the kaleidoscope, or just totally blown away by the colors and flowing geometric patterns, I would love it if you sent in your donation. Because of donations so far on versions 1.0 to 1.7, I was able to add the Audio feature. Thank you.

You may also send mail if you have suggestions, questions, or comments and I'll be sure to answer them. Comments from users like yourself have made Kaleidoscope what it is today.

PS Check out my waveform editor for Windows called Cool Edit at a BBS or internet site near you.

Warranty Disclaimer

David Johnston (*The Author*) makes no warranty of any kind, expressed or implied, including any warranties of fitness for a particular purpose. In no event will the author be liable for any incidental or consequential damages arising from the use of, or inability to use, this program.

Symmetry

The symmetry controls the number of reflections about the main axis. For example, choosing a symmetry of 5 will always generate *i* star-like patterns, while a symmetry of 6 will generate *i* snowflake-like patterns.

Spin

Controls overall spinning of the kaleidoscope. Positive values spin clockwise while negative values spin it counterclockwise.

Line Size

Size of the line segments.

Trail Length

Length of trails.

Speed

Speed of lines. Higher values are faster.

Rotations

Speed of rotations of the individual line segments.

Cheese Size

Size of cheese wedge. If set to zero, lines are drawn instead of wedges.

Depth

Number of simultaneous reflections. The entire kaleidoscope is drawn again at smaller and smaller scales.

Free Floating

With depths of 2 or more, if free floating is not checked, each depth is half the way closer to the center than the previous depth. If checked, the depths move in and out.

Splitting

Length of continuous trail. Once the trail reaches this length, it starts in a new position.

Coloring Rotation

The style of color rotation to use. Color rotation produces stunning effects on 256-color displays by rotating the color palette. The following styles are available:

Static - Uses a pre-set palette. Not very interesting.

Flowing - Colors flow, and follow in the direction of drawing.

Wild - Colors flow, and go in the opposite direction of the drawing.

No Rotation - Colors palette is constantly changing, but colors do not flow.

Snazziness

This controls the rate at which the colors change, from slowly changing colors (Eerie) to very quickly changing colors (the *bands* choices, and *Out of Control*).

Bands

If set to zero, there are no bands (black segments). If not zero, this controls the number of black bands present.

Band Width

If bands are chosen (Bands not set to zero), then this controls the width of the black bands.

Polite

If checked, the kaleidoscope will let other applications that are running in the background run first, before drawing. This will allow other programs to run at their full speed without the screen saver slowing them down. The kaleidoscope is very computationally expensive. To see the kaleidoscope run at full speed, though, this can be turned off. If turned off, other applications will still run in the background, but they will not get as many CPU cycles, and will run slower.

Audio

When checked, the kaleidoscope will follow any music present at the recording inputs. To set the kaleidoscope to respond to music, use your sound board's mixer application to set the recording input to that of your music. To test if your system is set up for recording properly, use Sound Recorder (or any other audio recorder) to see if you can record your music. If you are able to record, then the kaleidoscope will be able to respond to it as well. The kaleidoscope will not respond to input if another application is currently recording.

The patterns seen will change depending on the frequencies present in the incoming music, and the decibel changes present. If you have more than one sound board in your system, you can choose the sound board by modifying the "RecordingDevice" line in the control.ini file. It defaults to zero. To use a secondary sound card, set this to 1.

The following parameters are controlled or modified by incoming audio:

- Snazziness (all coloring in fact)
- Coloring Bands
- Line Size (modified)
- Speed (modified)
- Rotations
- Splitting
- Restart interval

Parameters that *you* control:

- Symmetry
- Spin
- Line Size (some control)
- Trail Length
- Speed (some control)
- Cheese Size
- Depth
- Free Floating
- Migrating Depths
- Coloring Mode (Flowing works best)
- Band Width

If any of the parameters you control are set to random, they will be chosen at random between songs, or after a certain length of silence.

If your screen quickly fades to black, then there is no audio present to respond to. If this happens, check your sound card, cables, etc. Check to see that your mixer control (software provided with your sound card) is set to record your music. If this still does not work, make sure your sound card can record at 22050 KHz at 16-bit, or 44100 KHz at 8-bit. The kaleidoscope should also respond to 22050 KHz at 8-bit, even though the designs may be more wild, but definitely not black.

If your sound card is 16-bit, you will get great correlations between the music and the kaleidoscope. If you wish to get really technical and adjust some of the sensing parameters, you may modify them in the control.ini file. The parameters to modify are normally set to 100. Setting higher values for any of them will cause the patterns to become more excited, while lower values cause the patterns to be slower for the same musical input.

The control.ini lines that can be modified are:

- MusicBands (*Black bands frequency*)
- MusicSpin (*Rate of line spinning, or rotations*)
- MusicBlueBands (*Rate of blue excitedness*)

MusicRedBands (*Rate of red excitedness*)

MusicGreenBands (*Rate of green excitedness*)

If you enjoy this feature, I sincerely hope you consider sending in a little extra money. I am not asking more for the initial program, since many people still don't have sound boards, and cannot use this feature. I would be greatly interested in hearing how well this feature is working with your sound board and system configuration, even if you send no money at all.

Favorites

Choose cool preset kaleidoscope patterns by double-clicking on the name in the list. To choose randomly between all the items in the list, click the *Choose Randomly* option. To choose randomly between only certain patterns, highlight all the patterns to choose between (hold down on the control key to highlight more than one), and then check the *Choose Randomly* box.

At any time, you can save your current settings by typing a name for your creation, and clicking the *Add* button. If you had any parameters set to random, and you see one you like, click the *Last Pattern* button to bring up the settings used. You can then add it to your collection of favorites if you like.

