

# Using The Psychedelic Screen Saver or The Kinemorphic 3D Screen Saver With CD/Spectrum Pro

Here are a few hints, tips, tricks, and techniques to get the most out of using either screen saver together with CDSPRO:

- Settings shipped with the screen saver are prefaced by "[S] " if they use sound -- be sure to try one of these. "[S] Twitch" (for Psych) and "[S] Jumping Bean" (for Kine) are pretty good one for demonstrating the sound synchronization.
- Music with a strong on-beat followed by a soft off-beat will produce the most dramatic results.
- If you aren't seeing the patterns synchronizing with sound, check to see if sound synchronization is possible with your current system configuration. When you run CD Spectrum Pro and engage the spectrum, do the bars move with the sounds from the CD player? If not, you'll need to get this to work before the screen saver will synchronize with sound. Please see the [CD Spectrum Pro FAQ](#) for information on how to troubleshoot this problem.
- If the screen saver runs **very** slow with the sound engaged, try changing the "CPU Usage" (in the screen savers "Main Settings" panel) to "Normal" rather than "Low" -- this should help speed up the drawing.
- CD Spectrum Pro **must** be running for sound synchronization to work. If it isn't, and you run one of the settings that use sound, all of the control values that use sound are changed to "Oscillate" at run-time.
- If the synchronization doesn't appear to have much variation within the selected range, try checking the "Auto Gain" option in the "Sound" settings panel.
- If you have a fast machine, leave everything on and enjoy the ride. But if your machine is having trouble keeping up, the following CD Spectrum Pro options can be modified to increase performance:
  - Turn off the volume taskbar icon.
  - Make the spectrum window smaller, or turn it off.
  - FFT less than all of the data (right-click on the "wavin" indicator).



## CDP File Viewer (also known as CDP Tool)

The CDP Tool is a utility program provided with CD/Spectrum Pro to allow access to CDP files. A CDP file is a file containing the information (CD title, track names, artist, etc) for one or more CDs. These files can then be emailed, or put on web sites, or otherwise exchanged so that others can benefit from your effort of typing in all of that information. (Of course you too can benefit by finding CDP files for your CDs.)

The best way to understand how CDP Tool works is to play with it. For that reason, the majority of the help below is in the format of tutorials on how to perform common tasks in CDP Tool. The overview is short, so read that first, then come back here and click on the task you are trying to perform to learn how to do it.

- [Overview](#)
- [What do all of those menu options actually do?](#)
- [How do I make a backup?](#)
- [How do I import CDP files?](#)
- [How do I create a CDP file?](#)
- [How do I copy/move CDP information from one CDP file to another?](#)

## CDP Tool Overview

The CDP Tool main window is split into two parts - left and right. On the left is a tree-view showing the database, files and CDs. On the right is shown the contents of whatever is selected on the left.

The tree-view on the left always has at least one entry - "CD Info in Database". Additionally, it may contain any number of other entries, each being either a file or a CD. CD entries are always under either the database entry, or a file entry. You can click the "+" to the left of the database or file entry to get it to expand and show you the CD entries.

The CDs listed under "CD Info in Database" are the ones that CD/Spectrum Pro knows about. The database is stored in a file named CDPINFO.CDP in the same directory as CD/Spectrum Pro. To get CD/Spectrum Pro to recognize a CDP info, you have to get that info into the "CD Info in Database" entry. There are several ways to do this.

You can also get additional file entries in the left side by opening CDP files, or by selecting File->New to create a new file.

If you select (click on) a file entry or the database entry in the left side, the right side of the CDP Tool will show you the CDs which are contained in that entry. If you select a CD entry on the left side, the right side of the CDP Tool will show you the track and title information for that CD.

## CDP Tool - How do I make a backup?

Making a backup of your CD information is very easy. Simply choose the menu option:

***File->Make Backup***

The program will then prompt you for a file name. Type in the name of the CDP file in which you'd like to store all of your CDs' informations, and click "Save".

Once you've made a backup, we urge you to send it (via a binary attachment to email) to [cdspro@synthesoft.com](mailto:cdspro@synthesoft.com). This way, if your machine ever does crash (it can happen to anyone), you can simply connect to the web site and with a couple mouse clicks all of your CD information will be back on your computer. Also, this will allow other folks to benefit from your effort of typing in the CD information. If we make the CDP file library larger, everyone wins!

## CDP Tool - How do I import CDP files?

There are four ways to import a CDP File:

- 1) Click on the CDP file from inside Internet Explorer (or any browser that adheres to standards regarding file associations). This will automatically launch the CDP Tool in import mode. In import mode, only a dialog box is shown, and in that dialog you select the CDs which you wish to import, then click on the "Import" button.
- 2) Double-click on the CDP file in Windows' Explorer, or right-click on the file and choose Open. This too will bring up the CDP Tool in Import mode, described in #1 above.
- 3) Start CDP Tool, then choose menu option File->Import. This will bring up a dialog in which you enter the CDP file name (or browse for it) then click on the "Open" button. At this point you will see the Import mode dialog described in #1 above.
- 4) Start CDP Tool, then choose the menu option File->Open to open the CDP file. After entering the file name, you will see an additional entry in the left side tree-view of the main application. From there you can follow the directions in the [section on moving CD information between files](#) to move the CD informations into the "CD Info in Database" entry.

A note about internet browsers: Some versions of Netscape's browser choose to ignore file associations and therefore are unable to launch CDP Tool when you click on a CDP file inside that browser. There is nothing I can do about Netscape's error in this case. Similarly, I've had several reports that AOL's browser has trouble with the CD/Spectrum Pro web site. I'm told that newer versions of AOL work fine with it, but in any case you can always choose to use Internet Explorer, or a good version of Netscape. I'm also told that even with AOL, you can use these other browsers.

## CDP Tool - How do I create a CDP file?

There are two ways to create a new CDP file:

- 1) The easiest way is to create a backup using [the directions in this help file](#).
- 2) You can also choose the menu option - File->New, then move some CD information into that file using the directions in the [section on moving CD information between files](#), then choose File->Save to write the new file.

In the [section on moving CD information between files](#), directions are given for an example in which a new CDP file is created.

## **CDP Tool - How do I copy/move CDP information from one CDP file to another?**

CDP Tool uses the clipboard to shuffle CDP information between CDP files (between entries in the left-side tree-view). The following example shows how this works:

Note: to prepare for this example, you'll need to have at least one CD information already either typed in, or imported into the database.

### Directions:

- 1) Start CDP Tool (in the left side, you should see only "CD Info in Database")
- 2) Choose the menu option File->New (you should now have an "Untitled" entry in the left)
- 3) Left-click on "CD Info in Database" (the right side should show the CDs you've entered/imported)
- 4) Select one or more CDs from the list in the right side of the main window by clicking on them.
- 5) Choose the menu option Edit->Copy
- 6) Left-click on the "Untitled" entry in the left side. (the right side should go blank)
- 7) Choose the menu option Edit->Paste (the right side should show the CDs you copied)
- 8) Choose the menu option File->Save (type in a filename and hit "Save")



## CDP Tool - What do all of those menu options actually do?

- File
  - New - creates a new file entry in the left side. You can later copy/move CD information into that file and save it.
  - Open - opens a CDP file on disk.
  - Import - imports the CD information in a CDP file on disk.
  - Save - saves a CDP file.
  - Save As - saves a CDP file under a new name.
  - Close - closes a CDP file entry.
  - Close All - closes all CDP file entries (except "CD Info in Registry")
  - Compact Database - this compacts the CDPINFO.CDP file, removing empty space.
  - Import CDPlayer's INI file - use this to import the entries in the Windows' CD Player's INI file into the CD/Spectrum Pro database.
  - Make Backup - makes a backup of all CDP information currently stored in the registry.
  - Exit - closes CDP Tool.
- Edit
  - Copy - copies the selected CDP information(s) to the clipboard.
  - Copy Text - copied the selected CDP information to the clipboard in text format.
  - Cut - copies the selected CDP information(s) to the clipboard, deleting it from the current file entry.
  - Delete - deletes the current CDP information.
  - Paste - pastes in CDP information(s) from the clipboard to the current CDP file entry.
  - Edit - launches dialog in which you can edit the current CDP information, including title, track names, artist(s), etc.
  - Select All - selects all CD informations.
  - Select None - selects no CD informations.
- View
  - Sort by Artist - sorts the list using artist name as key.
  - Sort by Title - sorts the list using CD title as key.
  - Sort by CDID - sorts the list using CD ID as key.
  - Show Artist - toggles display of the artist name.
  - Show Title - toggles display of the CD title.
  - Show CDID - toggles display of the CD ID.
- WebLinks - If you have a properly configured web browser, these options will take you to various web pages:
  - CD/Spectrum Pro Home Page - the main CD/Spectrum Pro web page.
  - CDP File Library - the place to get free CDP informations.
  - FAQ (Frequently Asked Questions) - the FAQ and troubleshooting pages in case you are having trouble.
  - Online Documentation - this manual on the web.
  - License Agreement - the license agreement you agree to by installing and using this product.
  - Technical Support - where to get technical support for CD/Spectrum Pro and CDP Tool.
- Print
  - Print List of All CDs - prints a list of all the CDs for which you have CD information
  - Print List of Selected CDs - prints a list of all the CDs which are selected in the right-hand side list box.
  - Print Jewelcase - prints a jewelcase for the selected CD
- Help
  - Help - Launches help.
  - About - an about box.



# CD / Spectrum Pro FAQ

## (Frequently Asked Questions)

By far, the most common issues revolve around sound card and driver problems. Please, before sending email with a problem report, be sure your system is in a state where you can record CD audio using only the Win95/NT CD player and the Win95/NT Sound Recorder. CD/Spectrum Pro requires that your system be able to do this. All multimedia systems should be able to do this with no trouble. However, some drivers exist that can't handle this task properly. If you are unfortunate enough to have one of those drivers, you should contact your computer or sound card manufacturer for a replacement driver.

CD/Spectrum Pro uses the same resources and functionality as the combination of the Win95/NT CD player and the Win95/NT Sound Recorder. Once your system is in a state where those two applications can be used to record CD audio, chances are \*very\* good that CD/Spectrum Pro will work flawlessly.

### Frequently Asked Questions:

[Why am I having trouble connecting to the CDDDB server\(s\)?](#)

[Why can't I hear WAVs/chimes/system sounds when CD/Spectrum Pro is running?](#)

[Why isn't the spectrum animating?](#)

[Why is the system so slow when CD/Spectrum Pro is running?](#)

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## CD/Spectrum Pro FAQ

### **Q. Why am I having trouble connecting to the CDDB server(s)?**

**A.** By far, the most common cause of trouble connecting to the CDDB servers is when you are using CD/Spectrum Pro on a computer that is behind a corporate firewall. Most firewalls do not proxy the port(s) used to communicate with the CDDB servers, so this function will not work from behind those firewalls. To work around this problem, CD/Spectrum Pro now supports the HTTP protocol for communicating with the CDDB servers. So to use the CDDB from behind a firewall, simply choose a server with the letters 'http' in the name. CD/Spectrum Pro will gather the proxy information automatically if you are using MS IE - some other browsers don't set the proxy information in the standard locations, so you may have to configure the proxy yourself using the "Choose Server" dialog on the CDDB page of the CDInfo dialog.

## CD/Spectrum Pro FAQ

### Q. Why isn't the spectrum animating?

A. There are five common causes for this.

- The gain is set too low - drag it up.
- The CD audio line volume is set too low - look in the Mixer window and drag it up..
- The color of the spectrum is set to the same as the color of the background - right-click on the spectrum graphics and choose Configure. From there, you can set colors.
- The CD player is not hooked up to the sound card - if you are able to listen to CDs only through headphones, this is your scenario. (By the same token, if you listen to CDs through your sound card, this is not your scenario.) You need to connect a proper cable between your CD player and your sound card. Please let only a qualified technician perform this.
- By far, the most common cause of this problem is that the sound card is configured to digitize an audio source other than the CD audio (usually the microphone). Look in the Mixer window in CD/Spectrum Pro. If the Mixer window will not come up, then you will need to use whatever software came with your sound card because your sound card does not support standard mixer interfaces for programmers to access the card.

CD/Spectrum Pro uses the same mechanisms in your computer that are used by the Windows 95/NT components 'CDPlayer' and 'Sound Recorder'. You should first make sure that you can indeed record CD Audio by shutting down CD/Spectrum Pro and playing a CD with the Win95/NT CD player and recording with the Win95/NT Sound Recorder. Once you can successfully do this, chances are good that CD/Spectrum Pro will work fine.

## CD/Spectrum Pro FAQ

### **Q. Why is the system so slow when CD/Spectrum Pro is running?**

**A.** Some CDROM drivers (usually real-mode drivers) can cause CD/Spectrum Pro to have very poor performance. On systems equipped with those faulty drivers, other applications become extremely sluggish whenever CD/Spectrum Pro is running. Admittedly, CD/Spectrum Pro is a demanding application. But when running on good drivers, reasonable performance should be expected even on high end 486 machines, or low end Pentiums.

If your machine has one of these slow drivers, the best thing you can do (short of buying a new CD drive, or getting better drivers) is to disable the CD player in CD/Spectrum Pro and use only the spectrum analyzer. This will allow you to continue to use The Psychedelic Screen Saver to produce visuals that sync to the beat.

To disable the CD part of CD/Spectrum Pro, right-click on the "CD" indicator in the Console window. Choose "Disable CD Engine".

You should also visit the web site of the computer, or CD driver manufacturer. They may have a newer fixed driver available. They may also have a feedback mechanism where you can let them know you are unhappy with the quality of their drivers.

## CD/Spectrum Pro FAQ

### **Q. Why can't I hear the music when CD/Spectrum Pro is running?**

**A.** Some "off-brand" sound cards do not permit simultaneous listening and recording of sound. When recording starts, they stop sending the sound to the speakers. CD/Spectrum Pro uses the wave capture, or recording mechanism to determine what the sound looks like. Therefore, on these substandard cards, the sound will go silent when the spectrum is engaged. Although there is nothing we can do about this, there is something you can do - complain to your sound card manufacturer and ask for updated drivers. It is possible that they have a driver that will fix the problem. Also, keep this in mind the next time you buy a sound card - is it *\*really\** SoundBlaster compatible? SoundBlasters are :)

## CD/Spectrum Pro FAQ

**Q. Why do I get some color squares even when the CD is stopped?**

**A.** The color you see (usually in the left-most bin) is simply the baseline noise that your sound card is putting out. We don't make the sound, we just FFT it :) Sometimes, the sound is due to the digitizing of the ambient noise in the room captured by the microphone. If you have a microphone attached, look in the Mixer window, under "Record", and you can turn off the microphone input.



## CD/Spectrum Pro FAQ

**Q.** How can I check for hardware conflicts?

**A.** Look in

*Start->Settings->Control Panel->System->DeviceManager*

and make sure your CD player and sound card are configured properly with no resource conflicts.

## CD/Spectrum Pro FAQ

### **Q. Why would I sometimes experience a lockup?**

**A.** Some people with lesser known sound cards have reported cases where the computer will lock up when running CD/Spectrum Pro. It is important to note that in Win95 and NT, applications (like CD/Spectrum Pro) need help from poorly written drivers or faulty hardware to lock up the computer in this way. Therefore, if you experience one of these lockups, the only way to fix it is get better drivers from your computer or sound card manufacturer.

We've also noticed that the majority of the people reporting lockups have been using Cyrix CPUs. We don't know if the Cyrix chip is the cause of the problem on those computers, but we thought we should mention it.

## CD/Spectrum Pro FAQ

**Q. Is CD/Spectrum Pro an equalizer?**

**A.** No, CD/Spectrum Pro is not an equalizer. It is a spectrum analyzer. This means that it simply displays the frequency spectra without giving you any opportunity to adjust them. We may add equalizer capabilities when more sound cards support full-duplex wave I/O, but that remains to be seen.

## CD/Spectrum Pro FAQ

### Q. How would I write a similar program?

**A.** I've had many requests for information regarding how to write code to do some of the things that CD/Spectrum Pro does. We regret that we don't have the bandwidth to answer programming questions, but we will offer the following:

- CD/Spectrum Pro was written in C using the Win32 SDK.
- Most of the interesting code uses the multimedia APIs and some OLE/COM. You can find documentation on everything we did with those APIs in the Win32 SDK online help, or on MSDN.
- Specifically, folks seem to be interested in the spectrum analysis. We use standard Win32 multimedia APIs to gather the data. You should be able to find all you need in the online help for the Win32 SDK. To process the data, we use a Fast Fourier Transform (FFT) - although there are other transformation functions available. Unfortunately, the FFT is too complex to describe here, or in email - so your best bet would be the local library. Be prepared to invest a hefty amount of time to reach "FFT Nirvana" - for me it was several months.

## CD/Spectrum Pro FAQ

### **Q. Why can't I hear WAVs/chimes/system sounds when CD/Spectrum Pro is running?**

**A.** Many sound cards/drivers do not support what is known as 'full-duplex' WAV operations. This means that they do not allow you to record WAV data at the same time that you are playing WAV data. CD/Spectrum Pro uses the WAV recording mechanism to digitize the music. So, while CD/Spectrum Pro is running, if your sound card/driver does not support full-duplex mode, attempts to play WAV sounds will fail.

Fortunately, this is almost always a driver limitation, not a hardware limitation. What this means is that you can usually fix this limitation by simply installing a new driver that *does* support full-duplex operation. Contact your sound card or computer manufacturer to obtain such a driver (they are usually free, and most times you can download them off the web).

## CD/Spectrum Pro FAQ

**Q. Why does the volume change when I start/stop CD/Spectrum Pro?**

**A.** Some sound cards reduce the volume to the speakers when recording begins. We've tried to work around this as much as possible, but remember that the Mixer module is available to allow you to adjust the sound volumes if needed.

## CD/Spectrum Pro FAQ

### **Q.** How would I uninstall CD/Spectrum Pro?

**A.** There are three ways to uninstall:

1. Start->Programs->CDSpectrum Pro->Uninstall
2. Control Panel's 'Add/Remove Programs' applet
3. <http://www.synthesoft.com/cdspro/delcdsp.exe>

## CD/Spectrum Pro FAQ

**Q. Is it possible to synchronize the spectrum/screen savers to LINE-IN (or any other source)?**

**A.** Yes. If your sound card/driver supports digitizing a source, then you may use that source to drive the spectrum and/or the screen saver(s) visuals. In other words, if you can record the source using the Windows Sound Recorder, then CD/Spectrum Pro should be able to use that source when it is run. The Mixer module in CD/Spectrum Pro exposes whatever standard functionality your sound card/driver might have to allow you to select which source(s) is/are being digitized (press the Record button).



## CD/Spectrum Pro FAQ

**Q. Is it possible to synchronize the spectrum/screen savers to MP3, MIDI, MPG, AVI, WAV, RealAudio, or other files?**

**A.** The MediaFiles module in CDSPro will play WAV and MP3 files and the spectrum and/or screen savers will respond automatically. For the other file types, the answer is “maybe - if you have a full-duplex driver”. Use your favorite player for these file-types, and if you have a full-duplex driver and if it can record WAV out, then CD/Spectrum Pro will be able to digitize the sound. (You need a full-duplex driver since most player software uses WAV output to play the sounds. For more information on full-duplex drivers, see [this other FAQ item.](#))



# CD / Spectrum Pro

**CD / Spectrum Pro Version** is a CD-Audio player with built-in graphical spectrum analyzer. It was designed to run on **Windows 95** and **Windows NT 4.0**. Version 3.3 was designed to run in conjunction with **The Psychedelic Screen Saver v3.9** and **The Kinemorphic 3D Screen Saver v2.1** to provide stunning visuals that are synchronized to the beat of the music you play on the CD. This document describes how **CD/Spectrum Pro** operates.

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## CD/Spectrum Pro Hardware Requirements

Although **CD/Spectrum Pro** will run on a 486, a Pentium is recommended for optimum performance. If your machine has trouble keeping up with the processor-intensive spectrum analysis, you may choose to use only the CDAudio part of the program.

Of course a CD player is required for the CDAudio portion of the program to function. If your system has more than one CD drive, you can choose which one **CD/Spectrum Pro** will use by right-clicking either on the “CD” indicator in the Console window, or anywhere in the CD player window. Currently, **CD/Spectrum Pro** provides no special support for multidisc changers, so although it should work with them, it will not be able to provide changer-specific functionality like changing which slot is playing.

A sound card is necessary for the spectrum analyzer to function. The spectrum analyzer uses the wave capture on the sound card to determine what the CDAudio signal looks like. If no sound card is present, or the sound card does not support wave capture, you may choose to use only the CDAudio part of the program.

Generally speaking, your machine should be in a state where you can record CD audio using the Windows 95 or NT CD player and sound recorder.

## CD/Spectrum Pro Installation

Installation is simple. A self-installing executable program is provided that performs all of the necessary installation chores. This installation program puts an icon on your desktop from which you can run **CD/Spectrum Pro**. Note that if you later choose to uninstall CD/Spectrum Pro, you should do so using the “Add/Remove Programs” applet in Control Panel. We also provide a menu option for uninstalling.

## CD/Spectrum Pro General Information, Tips, and Tricks

The following tricks and tips may be helpful when using *CD/Spectrum Pro*.

- You can resize and move each window individually.
- To move a window one pixel at a time, use the arrow keys.
- To resize a window one pixel at a time, use ‘x’ to make it smaller horizontally, ‘X’ to make it bigger. Use ‘y’ to make it smaller vertically, ‘Y’ to make it bigger.
- If you hold the control key down while dragging a window around, the rest of the windows will move as well.
- You can align all the windows on one edge by holding the <Control> key down and hitting one of the arrow keys. All CD/Spectrum Pro windows will then align themselves with the respective side of the active window.
- You can stretch all the windows to reach the same point by holding the <Shift> key down and hitting one of the arrow keys. All CD/Spectrum Pro windows will then stretch themselves so that they are aligned on the respective side of the active window.
- You can lock the windows so that they move together by right-clicking on the Console window and selecting the “Lock Windows Together” menu option.
- You can keep the windows from moving at all by right-clicking on the Console window and choosing the “Prevent Window Movement” menu option.
- If you accidentally move a window(s) and would like to jump back to the last saved setting, press the <home> key.
- Right-click on things to get context menus. You can get such a menu from almost anywhere in the program.
- Tooltips are provided for most buttons. Let the mouse cursor linger over a button to get a small text description of what the button does.
- The program remembers the last position of each of the windows. Further, you can store your favorite layouts in the Layouts window.
- The *Register* buttons turns into an *About* button and the nag dialogs disappear once the program is registered.
- Hit <Enter> to move between tracks, or <Tab> to move between fields, in the CD entry screen.
- Click the CD taskbar icon to pause/unpause CD play.
- The 'Large font size' option allows you to increase the text size in small configurations, making it easier to read. Note that it is possible that this option could make the text too big for the buttons.

## CD/Spectrum Pro Configuration

You can configure each element of CD/Spectrum Pro. The engines are configured by right-clicking either on the indicator in the Console window, or on the respective window (for example the CD window for the CD engine). The individual windows are configured by right-clicking on the respective window. Suffice to say, right-click on something to configure it.

- **CD Audio**

- Is Default CD Player - if this option is chosen, Windows will run CD/Spectrum Pro to autoplay CDs.
- Intro Duration - the number of seconds that will be played from each track in Intro mode.
- Logical CD Drive - the logical drive letter of the CD drive that CD/Spectrum Pro will use.
- Autorun on Startup - if this option is chosen, CD/Spectrum Pro will begin playing the CD as soon as the program is run.
- Auto Eject after Last Track - If this option is chosen, CD/Spectrum Pro will automatically eject the CD after play has completed.
- Stop CD on Exit - If this is chosen, the CD will stop playing when you exit CD/Spectrum Pro.

- **Spectrum**

- HiColor and LowColor - The spectrum will be displayed with the high color unless the Gradient option is chosen, in which case the spectrum is dithered so that the low elements are LowColor and the high elements are HiColor.
- Spectrum Trails Duration - adjusts the linger duration of the spectrum trails.

- **Global**

- 3D Look - if chosen, CD/Spectrum Pro will make its buttons look recessed.
- Layouts - provides a quick interface to choosing from the saved layouts.
- Colors - this option provides a dialog box within which you can set the colors CD/Spectrum Pro uses for things like background color, button color, etc.

## CD/Spectrum Pro CD-Audio

The CD/Audio player in CD/Spectrum Pro has the following features:

- Up to 100 tracks per CD.
- Programming by track, or by segment (time within a track).
- It reads information from the Windows CDPlayer, so if you have already entered your CD titles and tracks, CD/Spectrum Pro will read them so will not have to enter them again. However, CD/Spectrum Pro store the information in another location to allow more CDs to be stored. In fact, the number of CDs you can enter is almost unlimited.
- It is integrated with The Psychedelic Screen Saver for stunning visuals that are synchronized to the music you play.

Several buttons make the CD audio player easy to use. To play a track on the CD, simply click on the track's number in the grid.

Click the Tracks button to get a list of tracks. Other buttons include:

*Repeat* button. When it is depressed, play will repeat after the program or CD is finished.

*Random* button. When it is depressed, tracks will be played in a random order.

*Program* button. When it is depressed, tracks will be played in the order dictated by the program for the current CD.

*<note: if both the Random and Program button are selected, the programmed tracks will be played in a random order.>*

*Intro* button. When it is depressed, only the beginning of each track will be played. This option affects Regular, Random, and Programmed play.

*Eject* button. This button ejects the CD. On computers with CD players that support it, this button will also suck the drawer back in. Not all CD players support this.

*CD Info* button. This button launches a dialog box used to edit the title, artist, tracks and programming on this CD. The dialog box and entering of this information are discussed below.

*Play* button. This button begins playing the CD.

*Back* button. This button moves back to the previous track. In random or programmed mode, it moves to the previous random or programmed track, respectively.

*Forward* button. This button moves forward to the next track. In random or programmed mode, it moves to the next Random or programmed track, respectively.

*Pause* button. When depressed, play will be paused.

*Stop* button. Stops play.

*Restart* button. Restarts play at the beginning of the current track.

A trackbar is also provided to locate the current position within a track. Simply drag the trackbar to the desired location and play will resume there.

## Editing the Program List

The "CD Info" button will bring up a dialog in which the current CD's information can be edited. This dialog has three pages.

*CD Overview* Page: This page displays the current CD title, artist(s) and track titles.



*CD Information Page:* This page is used to enter the title, artist and track title information for the current CD. You can also enter an optional comment for the CD, and an optional comment for each track. If CD/Spectrum Pro is not recognizing a CD for which you have downloaded a CDP file, you can click on the Override button to locate the CD information and use it for the current CD. On this page, <Tab> moves between fields, and <Enter> brings up the next track. For the fields which allow multiple lines (comments), <ctrl><enter> will insert a line-break.

*Programming Page:* This page is used to edit program for the current CD. On this page, you can add/move/remove tracks, and music segments to/from the program. A segment starts at a track-minute-second and ends at a later track-minute-second. If your program does not play, it is probably because the music segment is invalid. Be sure to choose a segment that exists and has an ending time which is later than the starting time.

## CD/Spectrum Pro Spectrum Analyzer

The Spectrum Analyzer employs a Fast Fourier Transform to derive the frequency spectrum of the sound as it comes off the sound card. This spectrum is then displayed in the Spectrum window as a series of graphics. Below the frequency spectrum, left and right volume are displayed.

Eight buttons adorn the right side of the Spectrum Analyzer: *Left & Right*, *Center*, *Split*, *Combined*, *Audio*, *Spectral*, *Trails* and *Gradient*.

- *Left & Right* - When this button is selected, frequency information for both left and right channels is displayed.
- *Center* - When this button is selected, monaural frequency information is displayed. This button and the *Split* button cannot be depressed at the same time.
- *Split* - When this button is selected, the left, right and center channel frequency information is physically separated in the graph.
- *Combined* - Opposite of split.
- *Audio* - When this button is selected, the spectrum is shifted to compensate for our human ears. It should look a lot like it sounds.
- *Spectral* - When this button is selected, the spectrum is shown in its raw state - each frequency is given equal weight and the spectrum is physically accurate.
- *Trails* - When this button is selected, the spectrum graphics will show trails at the peak values. Trail duration is adjusted by right-clicking on the spectrum and choosing to configure the spectrum.
- *Gradient* - When this button is selected, the spectrum is displayed using a gradient of colors ranging from the low color to the high color. These colors can be selected by right-clicking on the spectrum and choosing to configure the spectrum.

A *Gain* trackbar is also provided to help adjust the gain of the signal into the spectrum analyzer. This has no effect on volume - to change volume, look to the Console or Mixer windows.

Right-click on the spectrum to get a context menu that will allow you to turn spectrum trails and hi resolution on/off, as well as perform other functions.

## **Design and Philosophy of CD/Spectrum Pro**

Version 3.0 of CD/Spectrum Pro represents a departure from the previous versions in its design. Previous versions were designed with one main window containing all of the program, and it was found that this was restrictive. So, version 3.0 was written (from scratch) to be much more modular - both in code and in use.

CD/Spectrum Pro 3.0 (or later) now has a main window (a console) from which many other windows can be launched. Control over the engines are also available from the console, as is a master volume control.

The engines are the parts of the code that control the hardware. For example, the CD engine keeps track of what's happening on the CD drive. There is an engine each for the CD drive, the wave capture, and the mixer. These engines can be on without any windows other than the console being up. This separation of engine from user interface (UI) mimics a client-server approach in that any number of UIs (clients) can be written to use each engine (server). For example, both the CD window, and the CD taskbar icon use the CD engine.

Version 3.0 is also the first multithreaded version of CD/Spectrum Pro. This helps the program remain responsive even when one of the components is busy with a time-intensive task.

## CDDB Database on the Internet

Version 3.3 of CD/Spectrum Pro adds the ability to download CD information from CDDB servers on the internet. A new page (titled "*CDDB on Internet*") was added to the CDInfo dialog in which you can press the "*Download Information for Current CD from Internet*" button to have the program connect to an internet server and download the track/artist/title information for the CD which is currently in the drive.

There is also a checkbox labeled "*Automatically download information for each new CD*" which, when checked, causes the program to automatically connect and download the CD information for each new unrecognized CD when it is inserted into the drive.

You may also select the server by clicking on the "*Choose Server*" button.

CD/Spectrum Pro also has the ability to use HTTP to talk to the server. If you are behind a corporate firewall, you should select a server which uses the HTTP protocol so that CD/Spectrum Pro can take advantage of your corporate proxy to connect to the HTTP server.

**Note that this CDDB connectivity will work only if you are connected to the internet. The current server is shown in a text field next to the "*Choose Server*" button on the "*CDDB on Internet*" page of the CDInfo dialog. If you are having trouble with the CDDB connectivity, try closing the program and using the TELNET program to connect to that server and port. If you can telnet to that server/port, then CD/Spectrum Pro should have no trouble downloading CD information.**

## CDDB Connectivity

Version 3.3 of CD/Spectrum Pro introduced the ability to connect to the CDDB servers on the internet to download CD information such as track/title/artist information. The “CDDB on Internet” page of the CDInfo dialog provides the following controls:

**Username and Hostname:** here you enter your username and the name of your machine. CD/Spectrum Pro will attempt to fill these controls with suitable defaults.

**Automatic download checkbox:** if this box is checked, CD/Spectrum Pro will automatically attempt to connect to the default server and download the information each time it sees a new CD.

**Download button:** pressing this button causes CD/Spectrum Pro to attempt to connect to the default server and download information for the currently loaded CD.

**Default server name:** This looks like:

sunsite.unc.edu cddb 888 - N035.23 W079.00 Chapel Hill, NC USA

and names your default server. If the letters CDDBP are present, this server supports the CDDBP protocol. If you are behind a firewall, you should choose a server with the letters http in the name (since most firewalls proxy http).

**Choose Server button:** This button brings up a dialog with a list of servers. In that dialog, select the server you wish to use. You may also download a list of servers from the currently selected server by pressing the “Download” button in that dialog. Also in the server dialog, you can select whether or not to use a proxy for the HTTP servers. If you are behind a corporate firewall, you will probably need to check the box to use a proxy (and choose an HTTP server), and fill in the name of the proxy in the edit box provided there.

A final note about the CDDB support in CD/Spectrum Pro: Ti Kan created the CDDB concept and maintains the CDDB sites. Steve Scherf co-designed the CDDB interfaces, and wrote the CDDB server software. CD/Spectrum Pro has no control over the CDDB servers, and neither Ti nor Steve has any control over CD/Spectrum Pro. **Do not contact Ti or Steve with questions about CD/Spectrum Pro - they cannot help.** For technical support, please see the technical support section of our web site at:

<http://www.synthesoft.com>

## **CD/Spectrum Pro Uploads to CDDB**

CD/Spectrum Pro will allow you to upload your CD information to the CDDB servers. This is done internally via email. CD/Spectrum Pro composes an email message and sends it to [xmcd-cddb@amb.org](mailto:xmcd-cddb@amb.org). This email address is user-configurable. The reset button sets it back to this default value.

Before you can upload to the CDDB, you must fill in the text in the “Your return email address” and “Your email server” controls. If you don’t know what to type in there, please consult whomever provides your internet account (your “ISP”).

Uploads to the CDDB are stored based on “Revision”, so you may wish to increment the revision by one before uploading. This can be done on the “CD Information” page.

## **CDDB vs CDP**

It is important to note the distinction between the **CDDB** and **CDP**. **CDDB** is an internet database of CD titles, and CD/Spectrum Pro supports accessing this database via the internet. **CDP**, on the other hand, is the means by which CD/Spectrum Pro stores your CD information locally - after it has been downloaded from the internet. We do maintain a library of CDP files on <http://www.synthesoft.com> and once you've got your collection in order, you can send the CDP file to us to be included on the site. This provides a second means with which to restore or build your CD information library locally.

## MediaFiles Module

CD/Spectrum Pro includes a MediaFiles module which is capable of playing MP3 and WAV files. It also supports play lists, so you can program it to play several files in succession.

CD/Spectrum Pro can be configured to handle WAV, MP3, PLS and M3U files for you via file associations. Detailed control over these associations is provided via context menu (right-click) on the MediaFiles window.

Decoding MP3 files is a CPU-intensive process. We have tested the MP3 decoder in CDSPro on 90Mhz Pentiums with success. We would consider a 90Mhz Pentium to be an absolute minimum platform for the MP3 part of CDSPro. Note that to use the synchronized visuals, you should probably have a 200Mhz or better processor. Generally speaking, performance is better under NT than under Win95, but either should do fine.

Many factors contribute to the playback quality. If you are experiencing breakup of the sound while playing an MP3, try the following:

1. Try turning off the CD engine. Many Windows 95 computers ship with real-mode CD ROM drivers. These can cause CDSPro to become sluggish. Try turning off the CD engine by right-clicking on the CD indicator in the console window and choosing "Disengage CD Engine".
2. Try turning down the FFT rate. To do this, right-click on the Waves indicator in the console window and choose "Configure Waves Engine". This will bring up a dialog in which you can choose to "FFT 1/2 Data" or less.
3. Try closing the Spectrum window. (Or make it smaller.)





# Synthesoft

*At Synthesoft, we believe that computers are capable of providing intense interactive audio-visual experiences. Our goal is to provide quality software that brings these experiences to life. Our products are a fusion of light, sound, and structure with a decidedly "digital" twist.*

The current Synthesoft product line includes: ***The Psychedelic Screen Saver***, ***The Kinemorphic 3D Screen Saver***, and ***CD/Spectrum Pro***. For the latest versions of the programs, documentation and information, visit Synthesoft on the web at <http://www.synthesoft.com>.

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This help file contains information on:

- **Synthesoft Products**
  - [The Psychedelic Screen Saver](#)
  - [The Kinemorphic 3D Screen Saver](#)
  - [CD/Spectrum Pro](#)
- **Product Licensing And Registration**
  - [License Agreement](#)
  - [Registration Information](#)
- **Technical Support**
  - [Frequently Asked Questions \(FAQ\)](#)
  - [Using the screen savers with CD/Spectrum Pro](#)
  - [How to get technical support](#)

# The Kinemorphic 3D Screen Saver

The Kinemorphic 3D Screen Saver will animate an endless variety of awesome 3D patterns and images. As the 3D patterns animate on your screen, the objects, images, lighting, and colors will move through, around, and on top of each other. Kinemorphics has been designed to give you an unprecedented amount of control over the effects used. You can use your own graphical images as object textures and backgrounds while Kinemorphics generates super-realistic lighting effects on top of super-realistic "living" 3D objects.

The Kinemorphic 3D Screen Saver has been designed to work in conjunction with CD/Spectrum Pro v3.1 (or later) in order to provide stunning 3D visual effects that synchronize with the sounds from an audio device (like the CD player in your computer). With many module controls, you can associate a sound frequency, a range of effect, and a sensitivity. Fluctuations in the amplitude of the frequency will oscillate the control values within the range of effect.

Kinemorphics will work with both Windows 95 and Windows 95 (v4.0 and up). OpenGL 1.1 (or higher) is also required. OpenGL 1.1 will be installed along with Kinemorphics if your system does not yet have OpenGL 1.1 AND you run kinegl21.exe (rather than kine21.exe) or download and extract kinegl21.zip (rather than kine21.zip). OpenGL 1.1 for Windows NT 4.0 is included with the operating system and does not need to be installed separately.

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# The Kinemorphic 3D Screen Saver

## Release Notes For v2.1

- The Kinemorphic 3D Screen Saver v2.1 is available now for \$20. This fee licenses you for Kinemorphics v2.1 but not for CD Spectrum Pro. CD Spectrum Pro is a separate product made by another ShareWare developer.
- Registering Kinemorphics v2.1 gives you a license to use all updates of The Kinemorphic 3D Screen Saver.
- You must have a sound card installed (and properly configured) in your system in order for Kinemorphics to sync with sound.
- CD Spectrum Pro **must** be running in order for Kinemorphics to sync with sound.
- Questions about the screen saver should be sent to [kine@synthesoft.com](mailto:kine@synthesoft.com) and questions about the CD player should be sent to [cdspro@synthesoft.com](mailto:cdspro@synthesoft.com).

# The Kinemorphic 3D Screen Saver

## System Requirements

Suggested:

- The Kinemorphic 3D Screen Saver v2.1 runs quite nicely on a P-90 system. Machines with higher speeds or with 3D accelerator cards will of course perform even faster.
- Microsoft Windows NT 4.x or Windows 95 with OpenGL 1.1.
- Quality/Speed tradeoffs – Note that as you increase your display's x-y resolution, the image size will improve at some expense to performance. Conversely, as you decrease resolution, the image quality will decrease as the animation speed increases. Also, high color depths (high color or true color) are recommended for optimal display quality.

# The Kinemorphic 3D Screen Saver

## Installation / Removal

### Installation

To install the Kinemorphic 3D Screen Saver, run the setup program (INSTALL.EXE) and then follow the directions. We recommend that you use the default options if you are installing for the first time.

### Removal

If you later decide that you would like to remove the software from your system, run the uninstall program (UNINSTALL.EXE) that's in the directory you installed to. You can also uninstall from the "Add-Remove Programs" applet in the Windows "Control Panel."

# The Kinemorphic 3D Screen Saver

## Questions / Support

If you have access to the World Wide Web, check out the technical support section of the Synthesoft web site at:

<http://www.synthesoft.com>

If you can't find the information you need in the [FAQ](#), send us email at [kine@synthesoft.com](mailto:kine@synthesoft.com)

If you are experiencing a problem, check to see if the problem exists in the latest version of the software which can be found on my WWW site. If you are still experiencing the problem, email me with a description of the behavior and information on your hardware configuration and operating system. Please be sure to indicate which version of the screen saver and which version of the operating system you are running.

# **The Kinemorphic 3D Screen Saver**

## **Updates**

Release 2.x is going to be regularly updated. Keep checking the web site. The currently released version number and release date will be posted there.



# **The Kinemorphic 3D Screen Saver**

## **Credits**

Synthesoft would like to thank Tom Seiler of The Graphics Depot  
(email: [gdepot@graphicsdepot.com](mailto:gdepot@graphicsdepot.com)) for providing us with lots of awesome settings.

# The Kinemorphic 3D Screen Saver FAQ

## (Frequently Asked Questions)

Before sending email with a question or problem report, read over the entire FAQ to be sure that your problem hasn't been addressed. Most of the problem reports we receive are related to (buggy) video drivers so check the answers to questions 9 and 10 if you are experiencing any display anomalies....

### **QUESTIONS:**

1. "What are fields, objects, and textures?"
2. How can I capture the images that the screen savers generate so that I can use them for my wallpaper, WWW pages, etc.?
3. What are the \*.KIN files?
4. What does the "Effects" module do?
5. Can Kinemorphics be run on Windows 3.11 or earlier?
6. I've noticed that each of the "motion" modules has a "Strength" setting -- what does it do?
7. How do I remove SS Runner (Runner.EXE) from my taskbar?
8. How do I remove The Kinemorphic Screen Saver from my system?
9. I'm seeing leftover graphics that stay around after the screen saver has exited -- do you know what's going on?
10. My system locks up periodically after running the screen saver...what's going on?
11. Which video cards are able to accelerate Kinemorphics?
12. The "random" modules reset (start a different display) every 16 seconds or so. How can I increase or decrease this time period?

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *What are fields, objects, and textures?*

**A.** Please see the **Module documentation.**

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *How can I capture the images that the screen savers generate so that I can use them for my wallpaper, WWW pages, etc.?*

**A.** On Windows 95 you can just press the "Print Screen" key and this will copy the image to the clipboard. From here, you can paste the image into your favorite image processing application and save/edit it.

On Windows NT, after the screen saver time-out period, the OS switches over to a secure desktop and then runs the screen saver. Because of this, pressing the "Print Screen" key will terminate the screen saver rather than copying the image to the clipboard. In order to avoid this behavior, you can run the screen savers (\*.SCR files are just \*.EXE files that have been renamed) from the command line or create icons for them. When you run them this way, you run them on the application desktop and the "Print Screen" key works just fine.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *What are the \*.KIN files?*

**A.** The KIN files are saved setting files. You can use the "Import" button in the "Main Settings" panel to load the files and display them. You should also be able to click on the KIN files and have the screen saver launch and display using the settings in that file. If you want to export your own settings into KIN files, you can just use the "Export" button in the "Main Settings" panel. You can also make shortcuts on your desktop to the KIN files so that you can launch the screen saver with different settings just by clicking on the shortcut. The KIN files that come with Kinemorphics get installed when you run the setup program. They should show up in the drop-down listbox that contains the "Saved Settings" in the "Main Settings" panel.

If you have your own saved settings that you really like and you'd like to share them with others, please send the \*.KIN file (and any objects, fields, or textures it uses) to us and it might get added to the next update of Kinemorphics!

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *What does the "Effects" module do?*

**A.** The "Effects" module differs from the other modules in the way it works. Instead of producing a pattern, "Effects" modifies whatever pattern is currently on the screen. So, if nothing is on the screen not much will happen.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *Can Kinemorphics be run on Windows 3.11 or earlier?*

**A.** No. Kinemorphics will \*only\* run under Windows 95 or Windows NT (4.0 or later).

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *I've noticed that each of the "motion" modules has a "Strength" setting -- what does it do?*

**A.** The "Strength" setting is a weighting that controls how much one module is favored compared to another. For example, if you made "Spin" as strong as possible and "Bounce" as weak as possible then the "Spin" module would draw quickly while the "Bounce" module would lag behind. Strength only has an effect when there is more than one module selected.



## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *How do I remove SS Runner (Runner.EXE) from my taskbar?*

**A.** To remove SS Runner from your task bar you need to follow the following steps:

- 1) Right click the SS Runner icon on the taskbar and select close from the popup menu.
- 2) Right click on the taskbar itself and select "Properties" from the popup menu.
- 3) Select the "Start Menu Programs" tab in the "Taskbar Properties" dialog.
- 4) Press the "Remove" button.
- 5) Double click on the "Startup" folder in the tree view in order to see its contents.
- 6) Select "Runner.EXE" (or "Runner") and press the "Remove" button.
- 7) Confirm the removal by pressing the "Yes" button.

At this point, SS Runner has been removed from your taskbar and will no longer be run when your system is started.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *How do I remove The Kinemorphic 3D Screen Saver from my system?*

**A.** Run the uninstall program (UnInstall.EXE) that's in the directory that you chose to install to (C:\Kine by default). You may then delete the directory.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *I'm seeing leftover graphics that stay around after the screen saver has exited -- do you know what's going on?*

**A.** This problem is probably due either to a problem in your video driver or to the way the driver is configured. There are several things you can try that may resolve the problem.

- Your graphics performance setting may be set to too high a value. To change the setting, right click on "My Computer" and select "Properties" from the popup menu. Now, select the "Performance" tab and then press the "Graphics" button. This should bring up a slider that will let you control how much the acceleration options for your video driver. Try setting the slider all the way to the "None" side and see if you still get the problem. If you don't, try setting it to the next higher value. Keep doing this until you find the fastest setting that doesn't exhibit the problem.
- Your video driver may have a bug in it. To see if this is the case, try using a another driver and/or a different resolution and see if the problem persists. (The standard VGA driver that ships with the OS is a good one to test with.) If the problem does not occur with a different driver you may want to check with the folks who made the video card to see if they have a new version that fixes the problem. You can probably find their WWW site on the internet.
- If the previous suggestions don't fix the problem, please follow the instructions on our technical support page at <http://www.synthesoft.com> to obtain further help.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *My system locks up periodically after running the screen saver – what's going on?*

**A.** See the answer to the "I'm seeing leftover graphics that stay around after the screen saver has exited -- do you know what's going on?" since this is probably due to a video driver problem.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *Which video cards are able to accelerate Kinemorphics?*

**A.** Since the 3D graphics that Kinemorphics uses are produced entirely by OpenGL, any video card/driver that accelerates OpenGL-based programs will accelerate Kinemorphics. For a partial list of the many cards that accelerate OpenGL-based programs, see <http://www.opengl.org/Info/Product/AcceleratorsTable.html>.

At this time, 3Dfx-based cards are unable to accelerate OpenGL. However, they are working on software that will allow OpenGL acceleration and as soon as it becomes available, it will be packaged with Kinemorphics. The reason that GLQuake runs accelerated on 3Dfx-based cards is that it does not use standard OpenGL.

## Kinemorphic 3D Screen Saver FAQ Entry

**Q.** *The “random” modules reset (start a different display) every 16 seconds or so. How can I increase or decrease this time period?*

**A.** The timeout value for random modules is set under the “Random” tab. Choose the Random module you’re interested in (the primary ones that come with Kinemorphics are “[R] Saved Settings I”, “[R] Saved Settings II”, “[R] Saved Sound Settings I”, “[R] Saved Sound Settings II”), and then click on the “Random” tab. Under the Random settings you will see a Duration field. This is the number of seconds that pass before the Random setting you are running chooses another display. The default is 16 (seconds).

# The Kinemorphic 3D Screen Saver

## Main Settings

This panel provides you with a convenient way to browse and select a Display from the list of available Displays. The Display that is selected will be used whenever the screensaver is run.

Here is a brief description of each of the controls in the **Main Settings** panel:

**Saved Displays** - From here you can pick which settings will be used when the screen saver runs. To **pick a new display** from the list of available displays, select its name from those in the drop-down listbox. All of the settings for that display will be loaded.

**Animation Speed** - Controls how fast the animations are drawn. This allows users of faster systems to slow things down so that they can watch them.

**Seconds to display title** - This allows you to configure how long the name of the currently running settings will be displayed in the top center of the screen before being erased. A setting of zero will keep the name from being displayed at all.

**Allow Quick Preview** – If this is checked then the currently selected Display will be previewed in the small preview window. The preview window will always display the last **saved** version of a Display so, if you make changes to a display, you'll need to save them before the preview window will display them. If you have a slower system you may want to disable the quick preview in order to keep the user interface responsive. You can view the settings in full screen mode by pressing **Preview** button.

# The Kinemorphic 3D Screen Saver

## Auxiliary Settings

From here you can configure options that control how the screen saver should behave regardless of which Display you have selected.

Here is a brief description of each of the controls in the *Auxiliary Settings* panel:

**Blank screen timeout** –Determines the number of minutes that the screen saver will draw before blanking the screen and completely giving up the CPU to other applications.

**Timeout before password is required** - Determines how many seconds the screen saver should run before it will ask for a password when the mouse is moved or a key is pressed. This is useful for times when the screen saver kicks in while you are reading what's on the screen.

**CPU Usage** - Determines how much processing time the screen saver receives when other applications are contending for the CPU. Keep in mind that the fact that other applications are running does not imply that they are placing a high demand on the CPU. In general, it is a good idea to keep this set to the “Low” setting unless the screen saver does not appear to be animating smoothly.



# The Kinemorphic 3D Screen Saver

## Edit Displays

Use the controls here to build and manage your displays. A particular display is comprised of one or more modules and a palette. The modules will provide the structure or shapes used in the display while the palette will determine the colors used to display the structures. To select which modules are used, check the box corresponding to the name of the module. If you wish to modify the way that a modules draws you can select the tab for that module and make adjustments to its controls. Similarly, select the palette tab if you wish to change to colors used in the display.

Here is a brief description of each of the controls in the **Edit Displays** panel:

**Active Modules** - Determine which modules are being used in the current display.

**Saved Displays** - From here you can pick which settings you are using, save new settings, and export settings to \*.KIN files. To **pick a new display** from the list of available displays, select its name from those in the drop-down listbox. All of the settings for that display will be loaded. To **Save** a display, just enter a name in the drop-down listbox and press the "Save Selection" button. You should now see the new display listed with the manes of the existing displays. Likewise, to **Delete** a display, select it's name from the drop-down listbox and press the "Delete Selection" button. Its name will be removed from the list of available displays.

In some cases you may want to create a file that contains the settings for a particular display. This can be useful if you want to send the settings to someone else or if you want to create a backup copy of the settings. You can use the **Import** and **Export** buttons to load or create saved setting files (\*.KIN files). You can also place KIN files on your desktop and launch them by double-clicking on them.

**Note:** If you want to capture the current settings while the screen saver is running, press the **F1** key. This will copy the settings into the list of saved settings under the name "Capture #n". Press the **F2** key if you wish to reinitialize the current settings while the screen saver is running.

**Clear Screen** - If this is checked, your screen will be cleared when the screen saver starts. If you are using the "Effects" module by itself, you may want to leave this unchecked.

# The Kinemorphic 3D Screen Saver

## Sound

Use the controls here to configure general options relating to the interaction between CD Spectrum Pro and The Kinemorphic 3D Screen Saver. To configure a particular palette or module control to use sound, select the "Palette" or module panel and set the "Source" for the control to one of the sound options. Please note that not all controls support sound based sources. If you are looking for tips and tricks on how to use the screen saver with sound, be sure to read the topic titled ["Using The Kinemorphic 3D Screen Saver With CD/Spectrum Pro."](#)

**Turbo Mode** - If CD Spectrum Pro is running and this is checked, the all sound sources that specify a frequency source will be forced to a "Volume" source at run time. This keeps CDSPRO from having to do some time consuming operations to the data that it sends on to the screen saver.

**Display CD Info** - If CD Spectrum Pro is running and this is checked, the title, track, and artist information for the current audio CD will be displayed in the lower left corner of the screen for a few seconds every time a new track begins.

**Auto run CDS/Pro** - If this is checked, then CD Spectrum Pro will be run whenever the screen saver is run. We recommend that you leave this turned off to avoid scenarios where you leave your office for a few minutes and the screen saver kicks in and launches the Megadeath CD you just purchased at peak volume. This particular option is not conducive to good relations with your coworkers.

**Auto Adjust Gain** - If this is checked, the screen saver will attempt to adjust the gain level that is applied to the data from CD Spectrum Pro to provide reasonable visual appearance. If this is not checked, you will need to adjust the gain slider in CDSPRO manually.

**Amplitude Homing** - This allows you to adjust how strongly the graphics "home-in" to the current minimum and maximum sound amplitude.

# The Kinemorphic 3D Screen Saver

## Module Settings

Here are some general pointers on how the controls operate. In general, controls are composed of several parts. To the right of a control is a drop down list box that you can use to select the source for a particular control. The source determines where that control gets information on how to calculate a value. The control will change depending on the source that is selected. Sources could be any of the following:

Here are a few examples of the way controls can appear.



**Set** - The value for the control is set to whatever value is indicated by the slider component. The controls in “A” (above) demonstrate a “Set” source. In this case, the value will be set to 2.

**Random** - The value for the control is set randomly generate so that it is between the two values indicated by the two sliders. The controls in “B” (above) demonstrate a “Random” source. In this case, the value will be a random number between 0 and 100.

**Oscillate** - The value for the control will oscillate between the values indicated by the two sliders. The frequency of the oscillation can be controlled using the up/down control just to the left of the source control. Higher values for the frequency will yield faster oscillation. The controls in “C” (above) demonstrate a “Oscillate” source. In this case, the value will oscillate between 1 and 50 with a frequency of 10 (fastest).

**Volume (and all frequency ranges)** - The value for the control will set between the values indicated by the two sliders using the volume from the audio input source. The sensitivity of the audio sampling can be controlled using the up/down control just to the left of the source control. Higher values for the sensitivity will yield faster sampling and be responsive to amplitude changes. The controls in “D” (above) demonstrate a “Volume” source (frequency sources work the same way). In this case, the value will fluctuate between 0 and 320 with a sensitivity of 10 (the most sensitive).

## The Bounce, Cyclic, Spin, and Position Modules

The following is intended as a brief overview of what each control does in the **Bounce, Cyclic, Spin, and Position** modules. Each of these four “motion” modules contains 6 pages of information. The page can

be set by the arrows in the upper-left corner of each module's tab.

### Page 1 - Field Origin Motion

This page describes how the origin (or center-point) of the "field" moves. This is the only page that differs between the three "motion" modules, and this field movement *defines* the difference between them.

A field is a set of points. At each point in a field, an "object" is drawn (see the page 3 documentation below for a description of objects). Field complexity can range from a single point (this is the default if you don't specify a field name) to a large list of points in 3D space that are "static" (set in 3D space relative to one another) or "living" (meaning, moving in a pattern relative to one another).

The center of a field is what you apply a high-level motion to in page 1 of each module's settings. For example, using the Bounce module, you choose how the center-point for the field bounces around in 3D space in page 1 of the Bounce module.

The "Reset" field determines how long this particular module resets itself. That is, how often it clears the screen and starts again, reinitializing any random settings.

### Page 2 - Field Properties

Unlike page 1 which specifies how the entire field moves through space, page 2 allows you to specify how each field moves around its origin. In other words, you can think of the field as a living entity that moves through 3D space (specified by page 1), but "walks" a certain way (specified by page 2).

First of all, you can specify the name of a field. The fields are kept in the "fields" subdirectory of the directory Kine is installed in. Each field is kept in a \*.FLD file. If you do not specify a field file name, a single point field will be defined at the field origin. You can also choose to **MODEL** your own fields!

You can also specify how the field rotates about its origin in all three directions in 3D space and the scale (or size) of the field in 3D space (note like most other settings, this is something you can oscillate from frame to frame).

### Page 3 - Object Properties

Objects, as mentioned above, are the 3D objects that are drawn at each point in a field. For instance, you could specify a "Pawn" object for the Cyclic module. If the Cyclic module has a field which consists of 2 points, you will see the Cyclic module move 2 pawns through 3D space.

This page allows you to specify how each object moves around its origin (not to be confused with the field's origin).

First of all, you can specify the name of an object. The objects are kept in the "objects" subdirectory of the directory Kine is installed in. Each object is kept in a \*.KOB file. If you do not specify an object file name, the default is "sphere1.kob". You can also choose to **MODEL** your own objects!

You can also specify how the object rotates about its origin in all three directions in 3D space and the scale (or size) of the object in 3D space (note like most other settings, this is something you can oscillate from frame to frame).

### Page 4 - Object Visual Properties

Texture Name - Textures are graphical images (bitmaps) that are applied in various ways to the sides of

the objects. How module textures are applied is controlled under the 3D Settings tab. You can specify that textures are mapped “solidly” onto the sides of the objects (texture mode 1), that textures are laid out in space and mapped onto objects “fluidly” as the objects intersect them (texture mode 2), or that textures are mapped onto the sides of the object “solidly” as if the object were a sphere (texture mode 3). You can also specify how the bitmap textures are scaled under the 3D settings tab (scaling only effects textures when using texture mode 1 or 2).

Red, Green, and Blue - This specifies the base color of the objects. Note that the color is also effected by the lighting used and any texture you might have applied to the objects.

Red Step, Green Step, and Blue Step - These allow you to produce a nice flowing color effect. They define how much each color changes from its initial setting (see Red, Green and Blue above) as the animation is running.

Texture Tile - When on, the texture you use (if any) is tiled 2x2. When off, the texture is not tiled at all.

## Page 5 - Drawing Properties

This page lets you specify various module-specific effects.

X Tile, Y Tile, and Z Tile - This allows you to specify that whatever is drawn by this module be repeated in the X, Y, and Z (depth) directions.

X Flip, Y Flip, and Z Flip - This is closely tied to the Tiling options (previous line). Turning flipping on in a particular direction specifies that the tiling is flipped (mirrored) for every two tiles in that particular direction. This only has an effect if tiling is greater than one for that direction.

Symmetry - Like tiling, this allows you to specify that the drawing be repeated. However the repeating is done in a circle instead of tiled like a grid.

Mirror - When Symmetry is greater than one, this specifies whether the symmetry is flipped (mirrored) for every two tiles (much like X, Y, and Z Flip effect the tiling).

Sweep - This specifies how far around a circle the symmetry goes. In other words, if you have symmetry set to 4 and sweep set to 360, each of the 4 fields is 90 degrees apart (like 4 compass points). If you reduce the Sweep, those 4 fields will be squeezed into the portion of a circle you specify (180 would put the “symmetried” fields into a half-circle).

## Page 6 - Orientation

This page lets you specify the overall orientation of the module.

X Orientation, Y Orientation, and Z Orientation - This allows you to define the overall 3-dimensional orientation of the module. The default (0,0,0) means that the module is oriented around the z-axis (i.e. the axis from near to far).

# The Branch Module

The following is intended as a brief overview of what each control does in the **Branch** module. This module contains 6 pages of information. The page can be set by the arrows in the upper-left corner of the module’s tab.

## Page 1 - Tree Properties

This page describes how the overall “tree” (or set) of branches appears.

X, Y, and Z Start Angles - Define the 3-dimensional direction in which the tree starts growing. 0,0,0 means that the tree starts growing straight up.

Depth - Defines how “deep” the tree is. In other words, a tree that is only 3 deep is typically going to be a very short and simple tree. A tree that is 8 deep will be taller and usually much more complex. NOTE: Be careful setting your “tree” up to have a huge Depth and a huge number of Branches! You could easily end up creating a tree that takes many minutes to create.

Branches - Defines how many “branches” branch off of each “node” (a node is an element of the tree). NOTE: Be careful setting your “tree” up to have a huge Depth and a huge number of Branches! You could easily end up creating a tree that takes many minutes to create.

Branch Chance - Determines the % (percent) chance there is that a branch is generated at a given node. If Branch Chance is 100% and you have number of Branches set to 5, then 5 branches will be generated for every node. If Branch Chance is set to 50% and number of Branches is 5, then each of the 5 branches at a given node has a 50% chance of coming into being. Note that there is always at least 1 branch per node until the depth limit is reached.

Clear Per Tree - Determines whether the screen is automatically cleared after each tree is generated (this clear is independent of the “Clear screen freq.” field found in 3D Properties).

Pause Length - Determines number of seconds (0 to 10) that the Branch module should pause drawing after each tree is drawn.

The “Reset” field determines how long this particular module resets itself. That is, how often it clears the screen and starts again, reinitializing any random settings.

## Page 2 - Random Properties

This page determines whether the Branch module’s object properties (see Page 3 below) are randomized per node or not.

Random X, Y, and Z Angle - Determines whether the X, Y, and Z angles, respectively, are randomized for every node to be between 0 and “X, Y, and Z Angle” as specified in Page 3.

Random X, Y, and Z Scale - Determines whether the X, Y, and Z scales, respectively, are randomized for every node to be between 0 and “X, Y, and Z Scale” as specified in Page 3.

## Page 3 - Object Properties

Objects, as mentioned above, are the 3D objects that are drawn at each point in a field. The Branch Module always uses a single-point field! The Pipe object is generally a good one for the Branch Module, although, as always, you can get some cool effects by experimenting.

This page allows you to specify the branch angle of each object in the tree (what direction it branches toward) and the scale of each object in the tree.

First of all, you can specify the name of an object. The objects are kept in the “objects” subdirectory of the directory Kine is installed in. Each object is kept in a \*.KOB file. If you do not specify an object file name, the default is “sphere1.kob”. You can also choose to **MODEL** your own objects!

X, Y, and Z Angle - Determines the X, Y, and Z angles, respectively, in which each "node" (or object) branches. This can be effected by the Random Properties on Page 2. When you choose "Random" or "Oscillate" for these properties here (on Page 3), you are randomizing per tree...not per node as with Page 2.

X, Y, and Z Scale - Determines the X, Y, and Z scales, respectively, in which each "node" (or object) branches. This can be effected by the Random Properties on Page 2. When you choose "Random" or "Oscillate" for these properties here (on Page 3), you are randomizing per tree...not per node as with Page 2.

Size Adjust % - This determines how much smaller (or larger) each "node" (or object) becomes as you get farther into the tree. For instance, 100% will mean that all "nodes" (or objects) are the same size throughout the tree as determined by X, Y, and Z Scale (unless Random X, Y, or Z Scale is specified on Page 2). 80% would mean each "node" is 80% smaller than its "parent node" (again, unless you've randomized the scales on Page 2).

#### Page 4 - Object Visual Properties

Texture Name - Textures are graphical images (bitmaps) that are applied in various ways to the sides of the objects. How module textures are applied is controlled under the 3D Settings tab. You can specify that textures are mapped "solidly" onto the sides of the objects (texture mode 1), that textures are laid out in space and mapped onto objects "fluidly" as the objects intersect them (texture mode 2), or that textures are mapped onto the sides of the object "solidly" as if the object were a sphere (texture mode 3). You can also specify how the bitmap textures are scaled under the 3D settings tab (scaling only effects textures when using texture mode 1 or 2).

Red, Green, and Blue - This specifies the base color of the objects. Note that the color is also effected by the lighting used and any texture you might have applied to the objects.

Red Step, Green Step, and Blue Step - These allow you to produce a nice flowing color effect. They define how much each color changes from its initial setting (see Red, Green and Blue above) as the animation is running.

Texture Tile - When on, the texture you use (if any) is tiled 2x2. When off, the texture is not tiled at all.

#### Page 5 - Drawing Properties

This page lets you specify various module-specific effects.

X Tile, Y Tile, and Z Tile - This allows you to specify that whatever is drawn by this module be repeated in the X, Y, and Z (depth) directions.

X Flip, Y Flip, and Z Flip - This is closely tied to the Tiling options (previous line). Turning flipping on in a particular direction specifies that the tiling is flipped (mirrored) for every two tiles in that particular direction. This only has an effect if tiling is greater than one for that direction.

Symmetry - Like tiling, this allows you to specify that the drawing be repeated. However the repeating is done in a circle instead of tiled like a grid.

Mirror - When Symmetry is greater than one, this specifies whether the symmetry is flipped (mirrored) for every two tiles (much like X, Y, and Z Flip effect the tiling).

Sweep - This specifies how far around a circle the symmetry goes. In other words, if you have symmetry

set to 4 and sweep set to 360, each of the 4 fields is 90 degrees apart (like 4 compass points). If you reduce the Sweep, those 4 fields will be squeezed into the portion of a circle you specify (180 would put the “symmetried” fields into a half-circle).

## Page 6 - Orientation

This page lets you specify the overall orientation of the module.

X Orientation, Y Orientation, and Z Orientation - This allows you to define the overall 3-dimensional orientation of the module. The default (0,0,0) means that the module is oriented around the z-axis (i.e. the axis from near to far).

# The “Effect” Module

This module allows you to apply a visual effect to all other running modules. You specify the type of effect (currently there are seven possibilities), and the frequency (strength) at which the effect is applied in the X and Y directions. A lower strength means the effect is repeated in small increments, thus, there are more steps. A higher strength means the effect is repeated in large increments, thus, there are fewer steps.

# The “Random” Module

This module allows you to automatically run different Kinemorphics settings in random order. The Random module is active when you first run Kinemorphics.

Active/Saved – This specifies whether the Random module chooses which settings to run from the currently selected Active modules OR from the saved settings in your settings directory.

Maximum at once – This specifies the maximum number of active settings that can be run at once by the Random module. This has no effect when Active/Saved is set to Saved.

Duration – This determines how many seconds the Random module will run each active or saved setting before switching to a new active or saved setting.

Random Controls – When turned on the Random module will generate settings randomly. Note that things like tiling can make this choice run very slowly. Turning this option on is not recommended unless you have a very fast machine.

Clear Screen – When turned on, the Random module will clear the screen before jumping to the next Active or Saved setting. When turned off, whatever the previous setting left behind will be left untouched by the next setting until one of the settings performs its own clear operation.

Sound Only – When turned on, only settings that use sound will be chosen by the Random module if CD/Spectrum Pro is running. If CD/Spectrum Pro is not running, this option has no effect.

Single/Double Buffer – This determines the type of saved settings chosen by the Random module. All saved settings fall into two basic categories – single-buffered and double-buffered. The Double Buffering field in the saved module’s 3D Settings tab determines whether the saved setting is considered single or double buffered.





# The Kinemorphic 3D Screen Saver

## 3D Settings

These are the main 3D settings that effect all of the modules selected in the “Main Settings” panel...

**Local Lighting** - This is what gives all the objects the smooth shaded (lit) look. You will usually want this on unless you are using textures and you \*don't\* want to see the object colors change “through” the textures.

**Wireframe** - When you turn this on, all objects are drawn with “outlines”. This can be much faster, but of course, much less realistic.

**Dithering** - This will make colors on the screen saver flow together (or shade) more smoothly. When this is off, you will often see lines or blocks of solid colors instead of a smooth fading between colors.

**Perspective** - You will usually want this on. Basically, this is what makes the objects (and the “viewing volume” itself) appear smaller as they move farther away and bigger as they move closer. Turning this off will keep the object the same size no matter how far or close it is (in other words, it won't look like its moving farther or closer)...this can lead to some very different and interesting visual effects however.

**Texture Mode** - This determines in what way texture images (selected in the individual modules' “texture name” fields) are applied to its module's objects. 1 means the texture is applied directly to the object sides, 2 means the texture “sticks” to the object wherever the object happens to “hit” it, 3 means the texture is applied to the object as if it were a sphere. See the FAQ for more info on Texture Mode.

**Texture Scale** - This determines how big or small each module's texture appears when mapped onto that module's objects. This only has an effect when Texture Mode 1 or 2 is chosen. See the FAQ for more info on Texture Scale.

**Shininess** - Determines the relative “shininess” of all objects. A high value will make them appear very shiny (more white) and a low value will make them appear less shiny.

**Z Depth** - Z Depth is how “deep” the viewing volume (the apparent 3D area in which Kinemorphics runs) is. When running with Perspective turned on, this will determine how far back (and how close up) objects can move when they are animating.

**Clear depth freq.** - This determines how often (in seconds) the stored up depth information is cleared. When the depth information is cleared, all of the old drawing is suddenly considered infinitely far away. This of course means that all subsequent frames will be drawn on top of the frames drawn prior to the clear, regardless of their depth position. A setting of 1 means the depth information is cleared after every frame of animation.

**Clear screen freq.** - This determines how often (in seconds) the screen is cleared. Note that this includes clearing the depth information (see Clear depth freq.). A setting of 1 means the screen (and depth information) is cleared after every frame of animation (usually more than every second). In this case (setting of 1), double-buffering is used which is a smoother way of redisplaying each frame. When the setting is greater than 1, standard single-buffering (no buffering) is used.

**Object Quality** - This determines how accurately “living” objects will be displayed. If you are running on a slower system, you may want to lower the object quality in order to increase performance.

Conversely, if you are running on a fast system, you may want to increase the object quality in order to smooth out the angles. A value of 100 indicates that the object will be displayed at the same quality level in which it was created.

# The Kinemorphic 3D Screen Saver

## Background Settings

These are the settings that determine what your background looks like while Kinemorphics is running...

**Background Picture** - This can contain the name of a bitmap that will be drawn in the background while Kinemorphics is running. Image Quality determines how sharp the image looks. When lowered, this can sometimes improve the overall animation speed.

**Background Color** - This determines the color of the background. Of course, you won't see this color if you have a Background Picture specified.

# The Kinemorphic 3D Screen Saver

## The Modeler

The Modeler is a tool that you can use to create your own objects and fields. You can launch the Modeler by pressing the “Field / Object Creation” button in the Main Settings window or you can press the “Create” button on the field or object definition pages for the modules that support fields and objects. When the Modeler comes up you will see three windows. The window in the upper left is the Profile window, the window in the upper right is the Display window and the window along the bottom is the Controls window. In order to create an object, you place the vertices of the profile of the object in the Profile window with a left mouse click. The profile that you draw is then moved and rotated along a path that is guided by the settings in the Settings window. The rendered version of this movement is displayed in the Display window.

### Settings window:

**Steps** - Sets the number of steps along the path. Adding a lot of steps will make your object appear smoother, however it will also slow down the rendering time.

**X Sweep** - Sets the path’s total amount of rotation around the x-axis. This amount is applied incrementally to each step along the path.

**Y Sweep** - Sets the path’s total amount of rotation around the y-axis. This amount is applied incrementally to each step along the path.

**Z Sweep** - Sets the path’s total amount of rotation around the z-axis. This amount is applied incrementally to each step along the path.

**X Trans** - Sets the path’s total offset along the x-axis. This amount is applied incrementally to each step along the path.

**Y Trans** - Sets the path’s total offset along the y-axis. This amount is applied incrementally to each step along the path.

**Z Trans** - Sets the path’s total offset along the z-axis. This amount is applied incrementally to each step along the path.

**Twist** - Sets the total amount of rotation of the profile about a “pivot” point. You can set the pivot point with a right mouse click in the profile window. This amount is applied incrementally to each step along the path.

**Radius X** - Sets the scaling of the profile along the x-axis.

**Radius Y** - Sets the scaling of the profile along the y-axis.

**Freq X** - Sets the frequency of the oscillation of the **Radius X** value.

**Freq Y** - Sets the frequency of the oscillation of the **Radius Y** value.

**End Style** – Determines how the ends of your object are capped. A value of 0 indicates that you don’t want any capping. A value of 1 indicates that you want the ends capped while a value of 2 indicates that you would like the end connected to the beginning.

## Profile window:

**Moving vertices** - You can move a vertex in the profile window by holding down the shift key while left clicking and dragging the vertex to its new location.

**Profile Slider** - You can use the slider bar at the bottom of the Profile window to set the size of the background grid. This can be helpful for guiding the placement of points.

**Setting the Pivot point** - Set the pivot point with a right mouse click in the profile window. The pivot point can be moved just like a vertex.

## Display window:

**Changing the Display view** - You can left click and drag to change the rotation of the rendered object in the Display window.

**Display Slider** - You can use the display slider for moving the object closer or further away. Note that this does not scale the object, it only determines the distance at which it is viewed.

## Menu options:

**File / Load** - Allows you to load existing objects and fields so that you can edit them. Note that some of the default objects are stored in a format that does not allow you to edit them.

**File / Save as Object** - Save the current settings to a file that can be used as an object in The Kinemorphic 3D Screen Saver. edit them.

**File / Save as Field** - Save the current settings to a file that can be used as a field in The Kinemorphic 3D Screen Saver. edit them.

**Edit / Undo Point** - Removes the last vertex that was added to a profile.

**Options / Profile / Clear Profile** - Clears all of the vertices and the pivot point from the profile window.

**Options / Profile / Snap To Grid** - Forces new vertices to appear on the closest grid intersection.

**Options / Renderer / Animate** - This will allow you to edit and view your settings in motion. Note that you will only see motion in an object if you are using settings that contain oscillation based or sound based control sources.

**Options / Renderer / Display As Field** - Display the current settings as a field.

**Options / Renderer / Wireframe** - Display the object as a wireframe model rather as a rendered object.

**Options / Renderer / Load Texture** - Load a texture file and apply it to the current object. This is useful for seeing how an object will appear with a given texture mapped onto it. Note that this is for viewing only, the texture will not be associated with the object when the object is saved.

**Options / Renderer / Color** - Pick the color that the object will be rendered with. Note that this is for viewing only, the color will not be associated with the object when the object is saved.

## In General...

The best way to get a feel for what the controls do is to play with them. Any change to a control setting is immediately reflected in the Display window so it's easy to see the effect of a particular control by changing it and watching what happens. While you experiment, you'll notice that the visual effect of a

particular control can change based upon the state of the other controls. This allows you to create a huge variety of shapes.

If you set any of the control sources to oscillate or to a sound based source and you have a fast system, you may want to turn on the “Animate” option under the Options menu. This will allow you to view and edit your object in motion. If CD Spectrum Pro is running and a CD is playing, you can see how your objects will be effected by the sounds.

# The Kinemorphic 3D Screen Saver

## Keyboard Commands

There are a number of keyboard commands that you can use to control the screen saver while it is running.

**F1** - Captures the current display and saves it to the list of saved displays. You can select, rename, review, and/or edit the display in the main settings panel for the screen saver. The captured display will show up under the name "Capture #n" where "n" is the number of the capture.

**F2** - Advances the screen saver to the next set of settings for the current display. If you are running in a random mode where you are selecting from the saved displays, then you will get a new display. If you are running in a random mode where you are selecting from a set of modules, a new subset will be selected.

**F5** - Toggle suspend/resume drawing.

**F9** - Toggle disable/enable mouse interrupt. You can use this to stop (or start) mouse movements from waking up the screen saver. Keep in mind that you can still wake up the screen saver by pressing a keyboard key that is not part of this command list.

**Left Arrow** - Moves CD player back one song (when CD/Spectrum Pro is running)..

**Right Arrow** - Moves CD player forward one song (when CD/Spectrum Pro is running)..

**Up Arrow** - Increases audio volume (when CD/Spectrum Pro is running).

**Down Arrow** - Decreases audio volume (when CD/Spectrum Pro is running).

**1 - 9** - Jump to track 1 - 9 (when CD/Spectrum Pro is running).

**TAB** - Lock module(s) parameters (i.e. turns random module off).

**+ / -** - Increase / decrease drawing speed.



# License Agreement

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\$20 if you are just registering 'The Psychedelic Screen Saver'

\$20 if you are just registering 'The Kinemorphic 3D Screen Saver'

\$20 if you are just registering 'CD Spectrum Pro'

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\$30 if you are registering both 'CD Spectrum Pro' and 'The Kinemorphic 3D Screen Saver'

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# The Psychedelic Screen Saver

The Psychedelic Screen Saver generates an endless variety of mesmerizing patterns. As the patterns materialize on your screen, the colors will shift, undulate, and generally speaking, look cool. Whether you're into abstract art, mathematics, or just have a history of mental illness, you'll love this screen saver.

Version 3.9 of The Psychedelic Screen Saver has been designed to work in conjunction with CD/Spectrum Pro in order to provide stunning visual effects that synchronize with the sounds from an audio device (like the CD player in your computer). With many of the module controls you can now associate a sound frequency, a range of effect, and a sensitivity. Fluctuations in the amplitude of the frequency will oscillate the control values within the range of effect.

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  - [Plug-In Modules – Adding New Patterns](#)
- **The Psychedelic Screen Saver User's Manual**
  - [Main Settings](#)
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  - [Edit Displays](#)
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# The Psychedelic Screen Saver

## Plug-In Modules

Plug-In Modules are 3rd party modules that you can use to increase the variety of patterns that The Psychedelic Screen Saver can use. Like the modules that come with the screen saver, these modules can take advantage of the sound sync capabilities and the palette animation capabilities provided by Psych. In order to use Plug-In Modules you must be using version 3.9.950 (or later) of The Psychedelic Screen Saver. To install a Plug-In module, just copy it (usually a \*.DLL file) to the PlugIns subdirectory under the directory where you installed Psych.

You can find more information about Plug-In Modules as well as a number of Plug-Ins on our WWW site at:

<http://www.synthesoft.com>

## Plug-In Module SDK

The Plug-In Module SDK allows programmers to create their own modules that can be used with The Psychedelic Screen Saver. Like the modules included with the screen saver, Plug-In Modules can take advantage of all of the features provided by the core engine.

These features include:

- Sound Sync capability
- Palette/Color control
- Configuration of control values
- Storage of control values
- On-the-fly video mode switching

You can find more information about Plug-In Modules and download the SDK from our WWW site at:  
<http://www.synthesoft.com>

# The Psychedelic Screen Saver

## Release Notes For v3.9

- The Psychedelic Screen Saver v3.9 is available to users who have registered a previous version of The Psychedelic Screen Saver as a \$10 upgrade. This fee licenses you for Psych 3.x but not for CD Spectrum Pro. While CD Spectrum Pro works with the screen saver, it is a separate product.
- Registering Psych v3.9 gives you a license to use all updates of The Psychedelic Screen Saver prior to version 4.0 and \*ALL\* previous versions.
- You must have a sound card installed (and properly configured) in your system in order for Psych 3.9 to sync with sound.
- CD Spectrum Pro 3.3 **must** be running in order for Psych v3.9 to sync with sound.
- Questions about the screen saver should be sent to [psych@synthesoft.com](mailto:psych@synthesoft.com) and questions about the CD player should be sent to [cdspro@synthesoft.com](mailto:cdspro@synthesoft.com).

# The Psychedelic Screen Saver

## System Requirements

Suggested:

- The Psychedelic Screen Saver v3.9 runs quite nicely on a 80486 DX2-66 system. However, if it is being used in conjunction with CD Spectrum Pro then we recommend at least a 90Mhz Pentium system. In general, faster systems will yield more responsive displays.
- Microsoft Windows NT 4.0 or Windows 95
- We recommend (but don't require) a display card capable of running in a 256 color mode. See the answer to the following FAQ question "[How come the colors don't "shift and undulate" in high/true color display modes?](#)" for more information on video modes.

# The Psychedelic Screen Saver

## Installation / Removal

### Installation

To install the Psychedelic Screen Saver, run the setup program (INSTALL.EXE) and then follow the directions. We recommend that you use the default options if you are installing for the first time.

### Removal

If you later decide that you would like to remove the software from your system, run the uninstall program (UNINSTALL.EXE) that's in the directory you installed to. You can also uninstall from the "Add-Remove Programs" applet in the Windows "Control Panel."

# The Psychedelic Screen Saver

## Questions / Support

If you have access to the World Wide Web, check out the technical support section of the Synthesoft web site at:

<http://www.synthesoft.com>

We maintain a "Frequently Asked Questions" page similar to the [FAQ](#) that we've included here with the screen saver (but more up to date). The [FAQ](#) provides answers to the vast majority of the questions we get via email.

If you can't find the information you need in the [FAQ](#) or in the FAQ on the web, send us email at [psych@synthesoft.com](mailto:psych@synthesoft.com)

Note: If you are experiencing a problem, check to see if the problem exists in the latest version of the software which can be found on our WWW site. If, after installing the latest version, you are still experiencing the problem, email us with a description of the behavior and information on your hardware configuration and operating system. Please be sure to indicate which version of the screen saver and which version of the operating system you are running.



# The Psychedelic Screen Saver

## Updates

We post updates to the software on our web site fairly often. When we're feeling particularly creative we may post updates as many as 2 or 3 times a week!

If you have any suggestions or would like to request that we add a feature, please feel free to email us (at [psych@synthesoft.com](mailto:psych@synthesoft.com)) with your ideas. Many of the features currently included in our software are a result of suggestions from our customers.

# The Psychedelic Screen Saver FAQ

## (Frequently Asked Questions)

Before sending email with a question or problem report, read over the entire FAQ to be sure that your problem hasn't been addressed. Most of the problem reports we receive are related to (buggy) video drivers so check the answers to questions 17 and 18 if you are experiencing any display anomalies.

### QUESTIONS:

1. How come the colors don't "shift and undulate" in high/true color display modes?
2. Once I have my registration code, what do I do with it?
3. How can I capture the images that the screen savers generate so that I can use them for my wallpaper, WWW pages, etc...?
4. Do you do custom screen saver development?
5. I've noticed that the date on the ZIP you post changes fairly often but the name hasn't changed.
6. Once I download the file, how do I set up the screen savers?
7. Where can I find out more about how to write screen savers?
8. What the heck are \*.PSY files?
9. What does the "Effects" module do?
10. How come you don't have documentation for the module controls?
11. Can Psych 2.5 (or higher) run on 16 bit Windows?
12. How come when I run the setup program I get a black screen for a second and nothing gets installed?
13. I've noticed that each of the modules has a "Strength" setting -- what the heck does it do?
14. How do I remove SS Runner (Runner.EXE) from my taskbar?
15. How do I remove The Psychedelic Screen Saver from my system?
16. What is your official upgrade policy?
17. I'm seeing these strange boxes that stay around after the screen saver has exited -- do you know what's going on?
18. My system locks up periodically after running the screen saver. What's going on?
19. I've activated the password protection on my Windows NT system but when I run the screen saver and then move the mouse I'm not prompted to enter my password. How come?
20. The installation is taking forever to complete -- why?
21. How come I have to keep re-selecting the screen saver every time I boot my system?

## Psychedelic Screen Saver FAQ Entry

**Q.** *How come the colors don't "shift and undulate" in high/true color display modes?*

**A.** While the screen savers should still work in high/true color modes, you will only get the palette animation effects in 256 color video modes. In order to get some of the effects that they use, the screen savers use a palletized video mode. This means that colors are referenced by index rather than by RGB value. By using a palletized video mode, the screen savers can change the RGB value that corresponds to a particular palette index and the result is that all of the colors on the screen that use that index are immediately updated. Neither high or true color modes use a palette, so it is not possible to achieve the effects without manually updating the entire display. Since updating the entire display is far too slow, I didn't code the screen savers to do it.

If you have Microsoft's DirectX extensions installed then you can use the "Video Mode" panel inside the Psychedelic Screen Saver configuration dialog to set the video mode that the screen saver will run in. The screen saver can only provide this feature if the DirectX extensions are installed on your system. You can find out if you have the extensions installed by selecting the "Video Mode" panel. If there is a message telling you that they are not installed then you can download them from Microsoft's web site at: <http://www.microsoft.com/directx/>

## Psychedelic Screen Saver FAQ Entry

**Q.** *Once I have my registration code, what do I do with it?*

**A.** Once you've received your registration number you can enter it into the screen saver and remove the registration reminder messages by following these steps:

- . From the start menu, select "Settings" then "Control Panel"
- . Double click the "Display" icon
- . Select the "Screen Saver" tab of the display dialog
- . Press the "Settings" button
- . Press the "REGISTER" button of the Psych configuration dialog. (It's in the lower left corner next to the "Help" button.)
- . Press the "Enter Registration Number" button and then press "Next".
- . Enter your registration number in registration dialog.
- . Press the "Register" button

The next time the screen saver runs it should be fully registered!

## Psychedelic Screen Saver FAQ Entry

**Q.** *How can I capture the images that the screen savers generate so that I can use them for my wallpaper, WWW pages, etc...*

**A.** Well, on Windows 3.1 and Windows 95 you can just press the "Print Screen" key and this will copy the image to the clipboard. From here, you can paste the image into your favorite image processing application and save/edit it.

On Windows NT, after the screen saver time-out period, the OS switches over to a secure desktop and then runs the screen saver. Because of this, pressing the "Print Screen" key will terminate the screen saver rather than copying the image to the clipboard. In order to avoid this behavior, you can run the screen savers (\*.SCR files are just \*.EXE files that have been renamed) from the command line or create icons for them. When you run them this way, you run them on the application desktop and the "Print Screen" key works just fine.

## Psychedelic Screen Saver FAQ Entry

**Q.** *Do you do custom screen saver development?*

**A.** No.

## Psychedelic Screen Saver FAQ Entry

**Q.** *I've noticed that the date on the ZIP you post changes fairly often but the name hasn't changed.*

**A.** I make changes fairly often to the screen saver and post the updates in the same file. The reason I haven't changed the name is that quite a few people have added links to their page that directly reference the file by name. In order to make it easier for people to know when I've made updates, I've put together a WWW page that describes what changes have been made by date. You can find the updates page on our WWW site at: <http://www.synthesoft.com>

## Psychedelic Screen Saver FAQ Entry

**Q.** *Once I download the file, how do I set up the screen saver?*

**A.** The file that you've downloaded is actually an archive file that contains the collection of screen savers. In order to extract the files needed to install the screen saver, you will need to obtain a program that can extraction files from a ZIP archive. You can probably find a number of these archive programs from the Simtel Archive at <http://www.simtel.net/simtel.net/>  
An excellent Windows 95/Windows NT utility for managing archives can be found at <http://www.winzip.com>  
In any case, once you have used the archive utility to extract the files from the archive file, follow the instructions in the README.TXT file on how to install the screen saver on your system.



## Psychedelic Screen Saver FAQ Entry

**Q.** *Where can I find out more about how to write screen savers?*

**A.** If you are interested in writing screen savers for Windows 3.1, there is a source code sample in the Microsoft Windows 3.1 SDK called BOUNCER that should be helpful. If you are interested in writing a 32 bit screen saver for Windows NT or Windows 95, you might want to check out a sample in the Microsoft Win32 SDK called FRACTAL.

To write After Dark modules, you'll want to get a copy of Berkeley Systems' After Dark Module SDK which should be available somewhere on their WWW site at: <http://www.berksys.com/>

## Psychedelic Screen Saver FAQ Entry

**Q.** *What the heck are \*.PSY files?*

**A.** The PSY files are saved setting files. You can use the "Import" button in the "Main Settings" panel to load the files and display them. You should also be able to click on the PSY files and have the screen saver launch and display using the settings in that file. If you'd like additional PSY files you can find quite a few on our saved settings page at <http://www.synthesoft.com>.

If you want to export your own settings into PSY files, you can just use the "Export" button in the "Main Settings" panel. You can also make shortcuts on your desktop to the PSY files so that you can launch the screen saver with different settings just by clicking on the shortcut.

## Psychedelic Screen Saver FAQ Entry

**Q.** *What does the "Effects" module do?*

**A.** The "Effects" module differs from the other modules in the way it works. Instead of producing a pattern, "Effects" modifies whatever pattern is currently on the screen. For this reason, the effects module will produce the best results when it is used with one of the other modules.

## Psychedelic Screen Saver FAQ Entry

**Q.** *How come you don't have documentation for the module controls?*

**A.** As you've noticed, I have provided documentation for everything but the module controls. The best way to discover what the module controls do is to experiment with them.

## Psychedelic Screen Saver FAQ Entry

**Q.** *Can Psych 2.5 (or higher) run on 16 bit Windows?*

**A.** Psych 2.5 (and higher) will *\*only\** run under Windows 95 or Windows NT. It is multi-threaded so it won't run under Win32s.

## Psychedelic Screen Saver FAQ Entry

**Q.** *How come when I run the setup program I get a black screen for a second and nothing gets installed?*

**A.** You are trying to install the 32 bit version (Psych 2.5 or later) on Windows 3.1. Psych 2.5 is for Windows 95 and Windows NT only. Fortunately there are 16 bit versions that should work just fine on your system. You can download them from our download page at <http://www.synthesoft.com/>

## Psychedelic Screen Saver FAQ Entry

**Q.** *I've noticed that each of the modules has a "Strength" setting -- what the heck does it do?*

**A.** The "Strength" setting is a weighting that controls how much one module is favored compared to another. For example, if you made "Pattern" as strong as possible and "Stain" as weak as possible then the "Pattern" module would draw quickly while the "Stain" module would lag behind. Strength only has an effect when there is more than one module selected.

## Psychedelic Screen Saver FAQ Entry

**Q.** *How do I remove SS Runner (Runner.EXE) from my taskbar?*

**A.** To remove SS Runner from your task bar you need to follow the following steps:

- . Right click the SS Runner icon on the taskbar and select close from the popup menu.
- . Right click on the taskbar itself and select "Properties" from the popup menu.
- . Select the "Start Menu Programs" tab in the "Taskbar Properties" dialog.
- . Press the "Remove" button.
- . Double click on the "Startup" folder in the tree view in order to see its contents.
- . Select "Runner.EXE" (or "Runner") and press the "Remove" button.
- . Confirm the removal by pressing the "Yes" button.

At this point, SS Runner has been removed from your taskbar and will no longer be run when your system is started.



## Psychedelic Screen Saver FAQ Entry

**Q.** *How do I remove The Psychedelic Screen Saver from my system?*

**A.** If you have version 2.6b or later installed you can run the uninstall program (UnInstall.EXE) that's in the directory that you chose to install to (C:\Psych by default).

If you have an older version of the collection you can download and run the uninstaller from our WWW site at: <http://www.synthesoft.com>

## Psychedelic Screen Saver FAQ Entry

**Q.** *What is your official upgrade policy?*

**A.** My policy on upgrades is that, by registering a particular version, you are entitled to use any and all versions up to but not including the next major version. For example, if you register version 2.1 you are automatically registered for all 1.x and 2.x versions but not for 3.x versions. Basically, you get updates to the version you registered and a discount to upgrade to a new version if there is an upgrade fee.

## Psychedelic Screen Saver FAQ Entry

**Q.** *I'm seeing these strange boxes that stay around after the screen saver has exited -- do you know what's going on?*

**A.** This problem is probably due either to a problem in your video driver or to the way the driver is configured. There are several things you can try that may resolve the problem.

- Your graphics performance setting may be set to too high a value. To change the setting, right click on "My Computer" and select "Properties" from the popup menu. Now, select the "Performance" tab and then press the "Graphics" button. This should bring up a slider that will let you control how much the acceleration options for your video driver. Try setting the slider all the way to the "None" side and see if you still get the problem. If you don't, try setting it to the next higher value. Keep doing this until you find the fastest setting that doesn't exhibit the problem.
- Your video driver may have a bug in it. To see if this is the case, try using a another driver and/or a different resolution and see if the problem persists. (The standard VGA driver that ships with the OS is a good one to test with.) If the problem does not occur with a different driver you may want to check with the folks who made the video card to see if they have a new version that fixes the problem. You can probably find their WWW site on the internet.
- If the previous suggestions don't fix the problem, please follow the instructions on our technical support page at <http://www.synthesoft.com> to obtain further help.

## Psychedelic Screen Saver FAQ Entry

**0 Q.** *My system locks up periodically after running the screen saver – what's going on?*

**1 A.** See the answer to the "I'm seeing these strange boxes that stay around after the screen saver has exited -- do you know what's going on?" since this is probably due to a video driver problem.

## Psychedelic Screen Saver FAQ Entry

**0 Q.** *I've activated the password protection on my Windows NT system but when I run the screen saver and then move the mouse I'm not prompted to enter my password. How come?*

**1 A.** When you run the screen saver on a Windows NT system the screen saver has to run for about seven seconds before the operating system will prompt you for a password. This has nothing to do with the screen saver, this is a (very useful) feature of Windows NT.

## Psychedelic Screen Saver FAQ Entry

**0 Q.** *The installation is taking forever to complete -- why?*

**1 A.** There are a number of registry monitoring programs on the market which slow the installation process to a standstill. One example of such a program would be CyberMedia's FirstAid 97. The best thing to do speed up the install process is to close these types of programs before starting the installation.

## Psychedelic Screen Saver FAQ Entry

**0 Q.** *How come I have to keep re-selecting the screen saver every time I boot my system?*

**1 A.** This is a known problem with Win95. Microsoft has documented this problem in a knowledgebase article that can be found on their web site. The URL for the article is <http://www.microsoft.com/kb/articles/q141/5/43.htm>

# The Psychedelic Screen Saver

## Main Settings

This panel provides you with a convenient way to browse and select a Display from the list of available Displays. The Display that is selected will be used whenever the screensaver is run.

Here is a brief description of each of the controls in the **Main Settings** panel:

**Saved Displays** - From here you can pick which settings will be used when the screen saver runs. To **pick a new display** from the list of available displays, select its name from those in the drop-down listbox. All of the settings for that display will be loaded. If you find yourself looking for additional Displays, there is an archive of interesting PSY files (**Exported** Displays saved as files) available at <http://www.synthesoft.com> in the Psychedelic Screen Saver section.

**Animation Speed** - Controls how fast the animations are drawn. This allows users of faster systems to slow things down so that they can watch them.

**Seconds to display title** - This allows you to configure how long the name of the currently running settings will be displayed in the top center of the screen before being erased. A setting of zero will keep the name from being displayed at all.

**Allow Quick Preview** – If this is checked then the currently selected Display will be previewed in the small preview window. The preview window will always display the last **saved** version of a Display so, if you make changes to a display, you'll need to save them before the preview window will display them. If you have a slower system you may want to disable the quick preview in order to keep the user interface responsive. You can view the settings in full screen mode by pressing **Preview** button.



# The Psychedelic Screen Saver

## Auxiliary Settings

From here you can configure options that control how the screen saver should behave regardless of which Display you have selected.

Here is a brief description of each of the controls in the *Auxiliary Settings* panel:

**Blank screen timeout** –Determines the number of minutes that the screen saver will draw before blanking the screen and completely giving up the CPU to other applications.

**Timeout before password is required** - Determines how many seconds the screen saver should run before it will ask for a password when the mouse is moved or a key is pressed. This is useful for times when the screen saver kicks in while you are reading what's on the screen.

**CPU Usage** - Determines how much processing time the screen saver receives when other applications are contending for the CPU. Keep in mind that the fact that other applications are running does not imply that they are placing a high demand on the CPU. In general, it is a good idea to keep this set to the "Low" setting unless the screen saver does not appear to be animating smoothly.

# The Psychedelic Screen Saver

## Edit Displays

Use the controls here to build and manage your displays. A particular display is comprised of one or more modules and a palette. The modules will provide the structure or shapes used in the display while the palette will determine the colors used to display the structures. To select which modules are used, check the box corresponding to the name of the module. If you wish to modify the way that a module draws you can select the tab for that module and make adjustments to its controls. Similarly, select the palette tab if you wish to change to colors used in the display.

Here is a brief description of each of the controls in the **Edit Displays** panel:

**Active Modules** - Determine which modules are being used in the current display.

**Saved Displays** - From here you can pick which settings you are using, save new settings, and export settings to \*.PSY files. To **pick a new display** from the list of available displays, select its name from those in the drop-down listbox. All of the settings for that display will be loaded. To **Save** a display, just enter a name in the drop-down listbox and press the "Save Selection" button. You should now see the new display listed with the names of the existing displays. Likewise, to **Delete** a display, select its name from the drop-down listbox and press the "Delete Selection" button. Its name will be removed from the list of available displays.

In some cases you may want to create a file that contains the settings for a particular display. This can be useful if you want to send the settings to someone else or if you want to create a backup copy of the settings. You can use the **Import** and **Export** buttons to load or create saved setting files (\*.PSY files). You can also place PSY files on your desktop and launch them by double-clicking on them. There is an archive of interesting PSY files available at <http://www.synthesoft.com> in the Psychedelic Screen Saver section.

**Note:** If you want to capture the current settings while the screen saver is running, press the **F1** key. This will copy the settings into the list of saved settings under the name "Capture #n". Press the **F2** key if you wish to reinitialize the current settings while the screen saver is running.

**Clear Screen** - If this is checked, your screen will be cleared when the screen saver starts. If you are using the "Effects" module by itself, you may want to leave this unchecked.

**Plug-In Modules** - From here you can select which of the available Plug-In modules will be used when the Plug-In module is active. For more information on Plug-In Modules, read the following help topic: [Plug-In Modules – Adding New Patterns](#)

# The Psychedelic Screen Saver

## Palette

You can use the Palette configuration panel to control how the colors are generated for the displays you create. In order to understand how the effects apply, you need to know a little bit about how colors are created on the computer. Each pixel (picture element) on your screen is composed of certain amounts of red, green, and blue. On the computer, these amounts can vary between 0 and 256. By mixing the amounts of red, green, and blue in a particular pixel, you can produce just about any color in the spectrum. The purpose of the palette configuration panel is to allow you to control how the red, green and blue will be mixed.

Each of the three color guns (red, green, and blue) can be configured independently of the other two. This means that you can apply different effects to each of the guns to produce a wide variety of colors when the effects are combined. In order to control which gun you are editing the settings for, you use the three push buttons in the upper left. They are labeled "Red", "Green", and "Blue":

- **Color Gun Selection** - These control which color guns changes are being applied to. To change all of the guns simultaneously, hold the CTRL key down while making changes to any of the controls.

**Red** - If this button is depressed then all setting changes are applied to the red color gun.

**Green** - If this button is depressed then all setting changes are applied to the green color gun.

**Blue** - If this button is depressed then all setting changes are applied to the blue color gun.

- **Color Effects** - These control how the palette engine generates colors for the color gun you've selected.

**Ramp** - Generate intensities that start out bright then fade to black. You can control how quickly the fade to black takes place by using the "Ramp Frequency" control.

**Fade** - Generate intensities that will start out black then brighten and then fade to black again. You can control how quickly the fade takes place by using the "Fade Frequency" control.

**Smooth** - Will generate smooth, even, intensity transitions.

**Coarse** - Will generate intensity transitions that vary.

**Blackout** - Will set the intensity to 0.

**Random** - Will randomly pick one of the previous color effect options.

**Custom** - Intensities will be taken from the custom palette created in the "Custom" configuration panel.

- **Control Settings** - Use these to configure how the color effects are applied.

**Brightness** - This will scale all of the intensities for the selected color gun. A value of 50 would

indicate that all values will be reduced by 50%.

**Color Frequency** - This control how quickly the selected gun will oscillate. A high value will produce faster, more hectic, intensity transitions while lower values will produce smoother, more gradual, intensity transitions.

**Fade Frequency** - If the "Fade" color effect is selected, this will control how fast the fade takes place.

**Ramp Frequency** - If the "Ramp" color effect is selected, this will control how fast the fade takes place.

**Duration** - This controls how long (in seconds) the set of settings for the selected gun will last before a new set is generated. When a new set of settings is generated, the old settings are morphed (or interpolated) into the new settings (this produces smoother transitions between settings). You can control how quickly the interpolation occurs using the "Morph Rate" control documented below.

**Cycle Rate** - This controls how much delay (in milliseconds) there is between palette animation frames. Lower values will cause the palette to animate faster. *At the present, only the "Red" gun is used -- its value is applied to green and blue.*

**Event Rate** - This controls how often an event will take place for the selected gun. Events include things like changing the direction of animation or changing the frequency of the intensity transitions.

**Direction** - This controls which "direction" the selected color gun will animate and how fast it will move in that direction.

**Morph Rate** - This controls how quickly the transition from one set of settings to another will take place for the selected gun. A lower value will produce more gradual transitions while a high value will produce faster transitions.

**Intensity** - Like the brightness control, this will scale all of the intensities for the selected color gun. The difference is that the "Intensity" value is only applied to the intensities generated in the current frame of the animation rather than all the intensities (as brightness is).

# The Psychedelic Screen Saver

## Sound

Use the controls here to configure general options relating to the interaction between CD Spectrum Pro and The Psychedelic Screen Saver. To configure a particular palette or module control to use sound, select the "Palette" or module panel and set the "Source" for the control to one of the sound options. Please note that not all controls support sound based sources. If you are looking for tips and tricks on how to use the screen saver with sound, be sure to read the following [section in the help for tips and tricks on getting the most out of the sound sync capabilities.](#)

**Turbo Mode** - If CD Spectrum Pro is running and this is checked, the all sound sources that specify a frequency source will be forced to a "Volume" source at run time. This keeps CDSPRO from having to do some time consuming operations to the data that it sends on to the screen saver.

**Display CD Info** - If CD Spectrum Pro is running and this is checked, the title, track, and artist information for the current audio CD will be displayed in the lower left corner of the screen for a few seconds every time a new track begins.

**Auto run CDS/Pro** - If this is checked, then CD Spectrum Pro will be run whenever the screen saver is run. We recommend that you leave this turned off to avoid scenarios where you leave your office for a few minutes and the screen saver kicks in and launches the Megadeath CD you just purchased at peak volume. This particular option is not conducive to good relations with your coworkers.

**Auto Adjust Gain** - If this is checked, the screen saver will attempt to adjust the gain level that is applied to the data from CD Spectrum Pro to provide reasonable visual appearance. If this is not checked, you will need to adjust the gain slider in CDSPRO manually.

# The Psychedelic Screen Saver

## Video Mode

Use the controls here to set the video mode that the screen saver will use when it runs. When the screen saver is invoked, it will switch into the video mode you have specified and when it exits, it will switch back to the original video mode. *This is panel is especially useful to people who run in either high color or true color video mode but would like to run the screen saver in a 256 color mode (where it looks best).*

Please note that the screen saver can only provide this feature if Microsoft's DirectX extensions are installed on your system. You can find out if you have the extensions installed by selecting the "Video Mode" panel. If there is a message telling you that they are not installed then you can download them (at no charge) from Microsoft's web site at: <http://www.microsoft.com/directx/>

**Current Video Mode** - This provides you with information about the video mode that your system is presently configured to use. It will tell you the x and y resolutions of the display and the number of colors that can be displayed at once on the screen.

**Run screen saver in** - This provides you with information about the video mode that the screen saver will use.

**Available Modes** - This is a list of the video modes that are supported by your video card and driver. Please keep in mind that some video modes may be supported by your card that are not supported by your monitor. As a result, changing the display mode can leave your display unreadable if your monitor does not support the settings you select. Avoid changing to a display mode that you can't test first unless you already know that your monitor will support it.

**Set** - This button will set the video mode that the screen saver will use to the currently selected entry in the "Available Modes" list. If the video mode that you select requires a reboot then you will not be allowed to choose that mode.

**Clear** - This button will set the video mode that the screen saver will use to the default video mode that appears in the "Current Display Mode" box.

**Test** - This button will allow you to test the currently selected entry in the "Available Modes" list. If the video mode that you select requires a reboot then you will not be allowed to test that mode.

**Use** - This button will set the video mode that your system uses to the currently selected entry in the "Available Modes" list. If the video mode that you select requires a reboot then you will not be allowed to choose that mode.

### Notes:

- You must have Microsoft's DirectX Extensions installed on your system if you want to have the screen saver switch video modes when it runs. The end user binaries for DirectX can be downloaded (for free) from Microsoft's WWW site. The full URL is: <http://www.microsoft.com/directx>
- The Psychedelic Screen Saver looks best in 256 color video modes since these modes usually support palette animation. Please see the [FAQ](#) for more information on video modes.



# The Psychedelic Screen Saver

## Module Settings

### Control Tips:

Here are some general pointers on how the controls operate. Most of the controls use in the modules are composed of several parts. To the right of a control is a drop down list box that you can use to select the source for a particular control. The source determines where that control gets information on how to calculate a value. The control will change depending on the source that is selected. Sources could be any of the following:

Here are a few examples of the way controls can appear.



**Set** - The value for the control is set to whatever value is indicated by the slider component. The controls in “A” (above) demonstrate a “Set” source. In this case, the value will be set to 2.

**Random** - The value for the control is set randomly generate so that it is between the two values indicated by the two sliders. The controls in “B” (above) demonstrate a “Random” source. In this case, the value will be a random number between 0 and 100.

**Oscillate** - The value for the control will oscillate between the values indicated by the two sliders. The frequency of the oscillation can be controlled using the up/down control just to the left of the source control. Higher values for the frequency will yield faster oscillation. The controls in “C” (above) demonstrate a “Oscillate” source. In this case, the value will oscillate between 1 and 50 with a frequency of 10 (fastest).

**Volume (and all frequency ranges)** - The value for the control will set between the values indicated by the two sliders using the volume from the audio input source. The sensitivity of the audio sampling can be controlled using the up/down control just to the left of the source control. Higher values for the sensitivity will yield faster sampling and be responsive to amplitude changes. The controls in “D” (above) demonstrate a “Volume” source (frequency sources work the same way). In this case, the value will fluctuate between 0 and 320 with a sensitivity of 10 (the most sensitive).

For information on the controls for a specific module:

- Bezier
- Cyclic
- Pattern



- Plasma
- Polygon
- Sphere
- Stain
- Star
- Vortex
- Ray
- Whip
- Flow
- Line
- Squiggle
- Effect
- Slide Show
- Random
- Plug-In

# Slide Show

## Filename (or mask):

Allows you to select the picture file(s) to display. You can use wildcards

## Display Type:

Selects how the background image is displayed.

- (0) Centered, actual size image.
- (1) Centered image, stretched to fit the display.
- (2) "Mirror" type tile effect, where the image is tiled, similar to a fun-house mirror
- (3) Standard tiling, just like Windows' wallpaper settings.

## Force Gradient:

- (0) Creates a smoothly shaded effect, where the colors run together
- (1) Enhances the edges where the colors intersect on the original bitmap.

## Duration:

Specifies the number of seconds before the image is drawn.

## Smoothing:

This affects the strength of the image's edges being drawn. Set at (0), the colors are run together more abruptly. At the highest strength the edges flow together and produce a halo effect. Used with the **force gradient** setting, you can create nearly seamless edges or draw rings around objects.

## Random Order:

Determines whether or not the files specified by the **file mask** are displayed in sequential order (0) or in random order (1).

## File or Screen:

Set to (0), the image file selected is animated. Set at (1), whatever is on the screen when the saver kicks in is used as the image for animation. To use the screen, you will either want to check one or more additional modules or clear the "Clear screen at startup" checkbox in the main settings. Otherwise you will get a blank screen of one solid color that changes.

# Stain

**Nodes:**

The nodes are “centers,” or points of origin. An “outline” is drawn around the nodes. Increasing the number of nodes increases the edges and overlapping areas.

**Folding:**

Controls how tight the “weave,” or edges are in relation to each other. The higher the value, a less random, boxier shaped design is obtained. Lower values yield more circular shapes.

**Type:**

Determines which stain sub-type will be used to generate the image. Drastically affects the finished look.

**Image Duration:**

Specifies the number of seconds before the image is redrawn.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

**Diffuse:**

Controls the contrast between pixels. Higher settings give more of a “spray paint” effect.

# Sphere

**Size:**

The radius of the sphere(s), in pixels.

**Symmetry:**

Controls how the sphere(s) are drawn. Higher values force them to draw in circles, lower values randomly dot the screen.

**Type:**

Determines how individual spheres are drawn. Lower values are similar to a raindrop, where the color flows from the center out, and higher values vary the point at which the color flows from on the sphere's edge, like a wave.

**Image Duration:**

Specifies the number of seconds before the image is redrawn.

**X Tiling:**

Determines the number of "panes" that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of "panes" that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

# Polygon

**Vertices:**

The number of corners, which also determines the number of sides. The more vertices, the more complex the final design.

**Symmetry:**

Determines whether the image is fixed in one place and “mirrored”, like a snowflake, or whether it is random and has freedom to change shape and position.

**Speed:**

Controls the rate of movement, or drawing.

**Outline:**

Set at (0), there is no definable edge on the polygon. Set at (1), there is a border one pixel wide around the entire edge that contrasts with the color of the polygon itself.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

# Plasma

**Roughness:**

Determines how “grainy” the colors are. The lowest setting has smooth coloring, and the higher values produce more contrast.

**Update Interval:**

Determines how quickly the image is redrawn. At lower settings, the plasma field becomes more “defined” and cloudlike quickly (as the resolution increases). At higher values, the image takes longer to smooth out.

**Image Duration:**

Specifies the number of seconds before the image is redrawn.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

# Pattern

**Waves:**

The number of waves of color the flow outward (or inward). Higher values produce a busier, more involved effect, and lower values are more subdued.

**Turbulence:**

This setting determines how “busy” the pattern is. At lower values, the waves are further apart.

**Type:**

Controls which pattern sub-type is used to generate the image.

**Image Duration:**

Specifies the number of seconds before the image is redrawn.

**Turbulence Type:**

Controls the different “disturbance” patterns in the waves of color.

**Pattern Density:**

Controls the number of origin points for turbulence. Lower values create more concentrated patterns, higher values aren’t quite as busy.

**Wave Type:**

Determines the pattern for the waves to be drawn in. Experiment for best results.

**Folding:**

The higher the value, the tighter the pattern of waves. At lower values, the waves are more random.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

**Diffuse:**

Controls the contrast between pixels. Higher settings give more of a “spray-paint” effect.

# Cyclic

**Objects:**

The number of individual objects occurring at once.

**Spasticity:**

The relative “mood” of the objects. Lower values are calmer and seem less excited, higher values force the objects to fly about quickly, as if they had more energy.

**Trail Length:**

Controls how long the “tail” of the object gets. Low values draw short tails, and then there is a black trail after the object.

**Diameter:**

The size of the object(s).

**Planar Symmetry:**

The freedom of the object(s). Lower values permit movement around the screen, while higher values create more of a circular pattern.

**Object Rotation:**

Determines how tight the “turning radius” is.

**Object Sides:**

The lowest value creates a sphere. More sides create multi-sided polygons.

**Object Type:**

Controls the object’s general nature – this one requires experimentation to suit taste.

**Duration:**

Specifies the number of seconds before the image is redrawn.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.



# Bezier

**Beziers:**

The number of simultaneous objects (or curves) being drawn.

**Symmetry:**

At the lowest setting, the objects move about the screen. The higher values restrict movement to a centered, flowering pattern.

**Trail Length:**

Controls how long the colors trail stays in place before being “erased.”

**Width:**

Controls the size of the objects, or lines.

**Speed:**

The speed at which the pattern evolves.

**Duration:**

Specifies the number of seconds before the image is redrawn.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(0) draws the images one after the other. (1) and (2) leave gaps between the tiles. (3) forces mirror images in the tiles.

# Random

## **Actv/Svd/Snd**

- (0) (Active) Randomly displays the modules that are checked in the “Main Settings” dialog.
- (1) (Saved) Randomly selects from the list of saved displays.
- (2) (Sound) Randomly selects from the list of saved displays that synchronize with sound.

## **Maximum at Once:**

If the first setting is set to (0) (active modules) then this specifies the maximum number of modules can simultaneously be displayed. If the first setting is not set to (0) then this control doesn't do anything.

## **Duration:**

Determines how long the each selection will be displayed before the next selection is picked.

## **Random Controls:**

If the first setting is set to (0) (active modules) then this forces all of the controls for the selected modules to be set to random values. Note that this does NOT change any of the module settings permanently. If the first setting is not set to (0) then this control doesn't do anything.

## **Clear Screen:**

If set at (0), the screen will not be cleared when the next saved setting is drawn. Set at (1), then the screen will clear between each saved setting.

# Flow

**Sides:**

Determines how many sides the drawn polygon will have.

**Thickness:**

Controls the size of the lines that comprise the polygon's sides.

**X Rate:**

Controls the "drift" speed along the X (horizontal) axis. The shape will drift between the value(s) set here.

**Y Rate:**

Controls the "drift" speed along the Y (vertical) axis. The shape will drift between the value(s) set here.

**Rotate Rate:**

Controls the speed at which the shape(s) turn. Positive values force clockwise rotation, and negative values force counter-clockwise rotation.

**Duration:**

This controls how long the image remains before it is redrawn.

**X Span:**

Controls how far along the X (horizontal) axis the shape(s) will drift before returning to center.

**Y Span:**

Controls how far along the Y (vertical) axis the shape(s) will drift before returning to center.

**Depth:**

Determines the number of polygons to be drawn, creating the depth of the "spiral."

**Flux:**

Controls the degree of rotation between each successive polygon. Lower values create a "dizzier" effect, spiraling more quickly.

**Trail Length:**

Determines how long the tail of the shapes will get before disappearing.

# Effect

**Type:**

Determines the pattern that will be used as a “template.” The shape is drawn as white on a black background, and then colors that appear on top of it form patterns that will vary according to the shape that the effect module draws. Try **effect** and **vortex** together to get a good feel for the different types.

**X Strength:**

Determines how great the effect is on the X (horizontal) axis.

**Y Strength:**

Determines how great the effect is on the Y (vertical) axis.

**Display Interval:**

Controls the length of time before the effect module is redrawn.

# Whip

**Whips:**

Controls the number of individual whips drawn.

**Symmetry:**

Determines how many mirror images will be drawn. Higher values yield more circular shapes.

**Trail Length:**

Determines how long the trail of the whip gets.

**Width:**

Controls how much girth, or width, the objects can grow to within the whip(s).

**Speed:**

The speed at which the animation is drawn.

**Duration:**

Determines how long the whip will exist before being redrawn.

**Object Rotation:**

Controls the rate of spin each individual polygon in the whip will have. The objects will all rotate together in synchronous fashion – this value only controls the spin rate.

**Object Sides:**

Determines how many sides the polygons in the whip will have.

**Object Type:**

Controls the appearance of the polygons – solid w/outline, solid, outline only, etc.

**Angularity:**

The “cohesiveness” of the parts. Lower settings allow the individual parts of the whip to fly apart randomly, while higher settings produce a flowing, snake-like effect.

**Density:**

Determines the number of entities that make up the whole. Lower values produce a more solid object, higher values create a more fragmented appearance.

**Frequency:**

The relative pattern that the whip will bounce around in. Lower values allow for rounder bouncing, almost like a sheet blowing in the breeze, where higher values create a more robotic appearance.

**Offset:**

Controls the rate at which the polygons in the whip grow and shrink. Setting this value to a sound-responsive setting produces shapes that pulse with the beat.

# Ray

**Frequency:**

Determines the shape of the pattern – loose flowing edges, or rough, uneven sides.

**Amplitude:**

Controls the density of the pattern's color rings being drawn. Higher values create a busier texture.

**Density:**

Controls the overall "busyness", of the pattern. Lower values create more smoothly flowing color patterns.

**Folding:**

Lower values allow more random drawing of the edges, while higher values present a more ordered, boxier pattern.

**Shift Rate:**

Determines how quickly the colors in the pattern "melt" into each other.

**Ray Type:**

Determines the general "attitude" of the pattern drawn. Experiment to suit your mood.

**Diffuse:**

Controls the contrast between pixels. Higher settings give more of a "spray paint" effect.

# Vortex

## Points on Edge:

Determines how many vertices, or corners, the final vortex will have. These points will always be equal distances from each other.

## Spasticity:

The “caffeine” setting. This value determines whether the vortex calmly spirals inward, or vibrates and jitters like it’s had a lot of coffee.

## Amplitude:

Determines the rate of twisting as the vortex spirals inward. Higher values produce tight rings, as the twisting speed is increased.

## Image Duration:

Determines how long the image remains until being redrawn.

## Type:

This determines how the palette will look on the vortex. Different values paint the colors in slightly different ways. Experiment for best results.

## Collapse Rate:

Controls the speed from the edges to the center as the vortex is drawn. Faster collapse rates yield bigger panes of color (like a stained glass window).

## Radius Flux:

Controls the angles between the points on the edge of the vortex. This setting is directly affected by the **Flux Amplitude** setting, which determines the degree or level of the flux effect.

## Flux Amplitude:

Controls the strength with which the value set in **Radius Flux** is applied. Higher values are greater amplification – think of this as a “volume control” for the **Radius Flux** control.

# Star

## **Stars:**

The number of objects that are drawn. They are *not* all drawn at once, so when testing watch for a few seconds before determining if you have the proper amount.

## **Star Size:**

This controls how fat the stars will be when drawn. They can go from wispy to the size of a baseball bat.

## **Speed:**

The velocity that the stars have when travelling from the center to the edges.

## **X Revolve:**

Applies a “pinch” effect to the stars. Positive values force the stars to travel upward, and negative values force a downward direction. In each direction, the higher the value, the more “pinched” the look in the screen center, as if a belt were placed around the stars.

## **Y Revolve:**

Applies a “pinch” effect to the stars. Positive values force the stars to travel to the left, and negative values force the stars to the right. In each direction, the higher the value, the more “pinched” the look in the screen center, as if a belt was placed around the stars.

## **Z Revolve:**

Causes the stars to move in a circular direction. Negative values in this setting cause counter-clockwise rotation, positives, clockwise. The higher the value, the stronger the pull to the center, or gravity.

## **Rotation:**

The spin rate of the individual stars. You can't see this effect unless the **star sides** setting is two (2) or greater.

## **Star Sides:**

Determines the number of edges the objects (stars) will have.

## **Star Type:**

Determines the look of the star – outlined with fill, hollow, et cetera. Experiment to taste.

## **Symmetry:**

Controls the degree to which the stars mimic each other. Higher settings produce more circular, uniform results, lower values allow more random activity.



# Line

**Delta X1:**

The rate at which the location of the first endpoint of the line moves across the screen.

**Delta Y1:**

The rate at which the location of the first endpoint of the line moves up and down the screen.

**Delta X2:**

The rate at which the location of the second endpoint of the line moves across the screen.

**Delta Y2:**

The rate at which the location of the second endpoint of the line moves up and down the screen.

**X1:**

The X location of the first endpoint of the line expressed as a percentage of the width of the screen.

**Y1:**

The Y location of the first endpoint of the line expressed as a percentage of the height of the screen.

**X2:**

The X location of the second endpoint of the line expressed as a percentage of the width of the screen.

**Y2:**

The Y location of the second endpoint of the line expressed as a percentage of the height of the screen.

**Trail Length:**

Determines how long the trail of lines gets.

**Strength:**

Determines how much this module is favored compared to the other modules that are selected.

**X Tiling:**

Determines the number of “panes” that are drawn, left to right. Think of a tiled floor – you determine the number and size of the tiles.

**Y Tiling:**

Determines the number of “panes” that are drawn, up and down. Think of a tiled floor – you determine the number and size of the tiles.

**Tile Type:**

(1) draws the images one after the other. (2) and (3) leave gaps between the tiles. (3) forces mirror images in the tiles.

**Symmetry:**

Controls the degree to which the lines mimic each other. Higher settings produce more circular, uniform results, lower values allow more random activity.

**Duration:**

Specifies the number of seconds before the image is redrawn.



# The Psychedelic Screen Saver

## Keyboard Commands

There are a number of keyboard commands that you can use to control the screen saver while it is running.

**F1** - Captures the current display and saves it to the list of saved displays. You can select, rename, review, and/or edit the display in the main settings panel for the screen saver. The captured display will show up under the name "Capture #n" where "n" is the number of the capture.

**F2** - Advances the screen saver to the next set of settings for the current display. If you are running in a random mode where you are selecting from the saved displays, then you will get a new display. If you are running in a random mode where you are selecting from a set of modules, a new subset will be selected.

**F3** - Captures the current display and saves it to the list of saved displays. This option is exactly like F1 except that it will capture the current color palette (instead of the current palette control parameters) and set the animation type to "Custom." This way, you can get a moving snapshot of the current display.

**F4** - Advances the palette to the next palette by generating new parameters for the palette controls.

**F5** - Toggle suspend/resume drawing and palette animation.

**F6** - Toggle suspend/resume drawing.

**F7** - Toggle suspend/resume palette animation.

**F8** - Reverse palette animation direction for all color guns.

**F9** - Toggle disable/enable mouse interrupt. You can use this to stop (or start) mouse movements from waking up the screen saver. Keep in mind that you can still wake up the screen saver by pressing a keyboard key that is not part of this command list.

**Left Arrow** - Moves CD player back one song (when CD/Spectrum Pro is running)..

**Right Arrow** - Moves CD player forward one song (when CD/Spectrum Pro is running)..

**Up Arrow** - Increases audio volume (when CD/Spectrum Pro is running).

**Down Arrow** - Decreases audio volume (when CD/Spectrum Pro is running).

**1 - 9** - Jump to track 1 - 9 (when CD/Spectrum Pro is running).

**TAB** - Lock module(s) parameters (i.e. turns random module off).

**+ / -** - Increase / decrease drawing speed.

# The Psychedelic Screen Saver

## Custom Palette Settings

The custom palette editor allows you to specify the colors that will be used when the "Color Effect" in the "Palette" configuration panel is set to "Custom". Use the mouse to select an index or a range of indices from the palette and then use the functions listed below to adjust them.

**R / G / B** - Controls how much red/green/blue is in the selected range.

**Random** - Generates a random gradient of colors for the currently selected indices.

**Negative** - Sets each of the currently selected indices to their color negative.

**Reverse** - Reverses the range of currently selected indices.

**CopyTo** - Copy from one index or range of indices to another. Select an index or range as a source then press CopyTo and select a new index or range as a destination.

**Gradient** - Takes the first and last color in the selected range and generates all of the colors between them in RGB color space.

**Undo** - Undoes the previous operation. The undo buffer is only one entry so pressing undo twice is the same as not pressing it at all.

**Smooth** - Takes all of the colors in the selected range and modifies the RGB values so that they are more like the neighboring colors.

**Rough** - Randomly modifies the RGB values of the colors in the selected range by a small amount.

**Shift** - Swaps the red, green and blue values for the selected range. Red gets the value of green, green gets the value of blue, and blue gets the value of red.

**Import** - Allows you to load a palette from a file.

**Export** - Allows you to save the current palette to a file.

**Red, Green, and Blue Masks** - Prevent color operations from effecting a particular gun.

**TAB** - Lock module(s) parameters (i.e. turns random module off).

**+ / -** - Increase / decrease drawing speed.

# Registration Information

## The Psychedelic Screen Saver 3.9 The Kinemorphic 3D Screen Saver 2.1 CD Spectrum Pro 3.3

If you enjoy using The Psychedelic Screen Saver, The Kinemorphic 3D Screen Saver and/or CD Spectrum Pro, you may register any or all of them through NorthStar Solutions by any of the methods described below. After NorthStar processes your registration, they will send you a registration number that you will need to enter in the registration dialog in order to remove the registration reminder messages.

Please note that NorthStar Solutions is **not** the author of this software. They are contracted by the authors solely to process registrations. They do not provide technical support for the software and they cannot answer questions about anything but the registration process. If you need technical support, please read the following sections in the online help:

- [Frequently Asked Questions](#)
- [How to get technical support](#)

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### REGISTRATION TYPES

Note that The Psychedelic Screen Saver, The Kinemorphic 3D Screen Saver, and CD/Spectrum Pro are three separate programs. As such, you may register each one individually for \$20 US. However, since they screen savers were designed to integrate so well with CDSPro, we also provide two special savings packages which allow you to register both a screen saver and CDSPro for one low price of only \$30 US (a savings of \$10 US). Below are the registration options:

- 1) The Psychedelic Screen Saver v3.9 (screen saver only) for \$20 US.
- 2) The Kinemorphic 3D Screen Saver v2.1 (screen saver only) for \$20 US.
- 3) CD/Spectrum Pro v3.3 (CD player/spectrum analyzer only) for \$20 US.
- 4) Psych and CDSPro for \$30 US.
- 5) Kine and CDSPro for \$30 US.
- 6) Upgrade your pre 3.0 version of The Psychedelic Screen Saver to v3.9 (screen saver only) for \$10 US.

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### SITE LICENSE PRICING OPTIONS

**Any one of the products: (Psych, Kine, or CDSPro)**

Licenses	Cost per License
1	\$20
2 - 9	\$17.50
10 - 49	\$10

**Either screen saver plus CD Spectrum Pro:**

Licenses	Cost per License
1	\$30
2 - 9	\$25

10 - 49

\$15

For site license quantities of 50+, please send email to the appropriate contact: psych@synthesoft.com, kine@synthesoft.com, cdspro@synthesoft.com

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### PAYMENT OPTIONS

You may register via any of the following methods:

**PHONE** (Credit card only) - provide the information from the order form below to the operator at:

1-800-699-6395 (Monday-Saturday 10:00 AM - 8:00 PM EST US Only)  
1-803-699-6395 (Monday-Saturday 10:00 AM - 8:00 PM EST)

**FAX** (Credit card only) - Fax the order form below to:

1-803-699-5465  
(24 hr./day International and business orders encouraged)

**EMAIL** (Credit card only) - EMail the order form below to:

CIS: 71561,2751  
Internet: 71561.2751@compuserve.com  
(International and business orders encouraged)

**WWW** - Fill out the online registration form at:

<http://nstarsolutions.com/597.htm>

**US MAIL** - send the order form below to:

NorthStar Solutions  
P.O. Box 25262  
Columbia, SC 29224

<- - - - - ORDER FORM / CUT HERE - - - - ->

**Order Form**  
**The Psychedelic Screen Saver v3.9**  
**The Kinemorphic 3D Screen Saver v2.1**  
and/or  
**CD/Spectrum Pro v3.3**

Name:  
Address1:  
Address2:  
City: State: Zip:  
Country:  
Phone:  
Email Address:

Select products to register:

Psychedelic Screen Saver with CD/Spectrum Pro (PID 797) \$30 / \_\_\_\_\_

Kinemorphic 3D Screen Saver with CD/Spectrum Pro (PID 1463) \$30 / \_\_\_\_\_  
    Psychedellic Screen Saver v3.x (PID 798) \$20 / \_\_\_\_\_  
    Kinemorphic 3D Screen Saver v2.1 (PID 1462) \$20 / \_\_\_\_\_  
        CD/Spectrum Pro v3.3 (PID 522) \$20 / \_\_\_\_\_  
    Psychedellic Screen Saver v3.x Upgrade (PID 800) \$10 / \_\_\_\_\_

Check payment type: Visa \_\_\_ MasterCard \_\_\_ Discover \_\_\_ Check/MO \_\_\_

For credit card orders:

    Name as it appears on card:

        Card Number:

        Expiration date:

#### Important Notes:

1. Be sure to make check/money orders payable to "NorthStar Solutions"
2. If you are upgrading, please include the full name under which you placed your original order.
3. NorthStar does not provide technical support, they only handle registrations. If you need support, please read [the section in the online help which discusses support options.](#)
4. After your order is processed, NorthStar will provide you with a registration code which will "unlock" the software.
5. Please note that we do not ship diskettes for any of these products. You can get the latest version of each of these products from the Synthesoft web site at: <http://www.synthesoft.com>
6. Once you have your registration number, you can enter it into the screen saver to remove the registration reminder messages by following these steps:
  - From the start menu, select "Settings" -> "Control Panel"
  - Double click the "Display" icon
  - Select the "Screen Saver" tab of the display dialog
  - Press the "Settings" button
  - Press the "REGISTER" button of the Kine configuration dialog. It's in the lower left corner next to the "Help" button.
  - Press the "Enter Registration Number" button and then press "Next".
  - Enter your registration number in registration dialog.
  - Press the "Finish" button

The next time the screen saver runs it should be fully registered!

You can also enter your registration code into CD/Spectrum Pro by following these steps:

- Start CD/Spectrum Pro (double-click on the icon on the desktop)
- A reminder dialog will appear - click the "How To Register" button
- The registration dialog will appear - click the "Enter Registration Code" button, then press "Next"
- Enter your registration number in the registration dialog
- Press the "Finish" button

# Technical Support for Synthesoft Products

Please perform the following steps to obtain technical support for Synthesoft Products:

1. Take a moment to read the online help.
2. [Read the Frequently Asked Questions \(FAQ\)](#)
3. Run the Diagnostics Program.
4. If you have a sound related problem, try recording CD audio by closing CDSPro, and using the Win95/NT Sound Recorder and CD Player.
5. Send the output of the diagnostics program, a description of what happened during the test in step 4, and a description of what isn't working as expected (with as many details as possible), to the appropriate email address:

The Psychedelic Screen Saver: [psych@synthesoft.com](mailto:psych@synthesoft.com)  
The Kinemorphic 3D Screen Saver: [kine@synthesoft.com](mailto:kine@synthesoft.com)  
CD/Spectrum Pro: [cdspro@synthesoft.com](mailto:cdspro@synthesoft.com)

***More information is available on our web site at <http://www.synthesoft.com>. There, you'll find the latest FAQ, and the diagnostics program.***

**Note: any problem-report mail which does not contain all of the information requested here will not be answered, but will instead be referred to our web site. You must include the entire output of the diagnostics even if that output indicates that it found no problem. Many times, there is other important information in that output (for example, which OS? which sound card? which video driver/mode? etc).**



## Synthesoft Products (Frequently Asked Questions)

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For technical problems and other issues which relate only to a single product, please see the appropriate single product FAQ:

[The Psychedelic Screen Saver FAQ](#)  
[The Kinemorphic 3D Screen Saver FAQ](#)  
[CD/Spectrum Pro FAQ](#)

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Below are the FAQ items which are relevant to all or some Synthesoft products:

[The screen saver does not appear to be synchronized with the music - what should I do?](#)  
[I have entered my registration code, but the program still tells me I need to register. What's wrong?](#)  
[What do you do with the registration information \(address, phone number, email ID, etc.\) ?](#)  
[Can I add a link to the Synthesoft web site on my own page?](#)  
[Once I registered, I thought I would get a CD in the mail - where is it?](#)  
[Will there ever be a MacIntosh version of Synthesoft products?](#)

## Synthesoft FAQ Item

### **Q. The screen saver does not appear to be synchronized to the music - what should I do?**

**A.** Here are a few hints, tips, tricks, and techniques to get the most out of using the two programs together.

- Settings shipped with the screen saver are prefaced by "[S] " if they use sound -- be sure to try one of these. "[S] Twitch" and "[S] Jumping Bean" are pretty good ones for demonstrating the sound synchronization.
- Music with a strong on-beat followed by a soft off-beat will produce the most dramatic results.
- If you are not seeing the patterns synchronizing with sound, check to see if sound synchronization is possible with your current system configuration. When you run CD Spectrum Pro and engage the spectrum, do the bars move with the sounds from the CD player? If not, you'll need to get this to work before the screen saver will synchronize with sound. Please see the [CD Spectrum Pro FAQ](#) for information on how to troubleshoot this problem.
- If the screen saver runs very slow with the sound engaged, try changing the "CPU Usage" (in the screen savers "Main Settings" panel) to "Normal" rather than "Low" -- this should help speed up the drawing.
- CD Spectrum Pro must be running for sound synchronization to work. If it isn't, and you run one of the settings that use sound, all of the control values that use sound are changed to "Oscillate" at run-time.
- If the synchronization doesn't appear to have much variation within the selected range, try checking the "Auto Gain" option in the "Sound" settings panel.
- If you have a fast machine, leave everything on and enjoy the ride. But if your machine is having trouble keeping up, the following CD Spectrum Pro options can be modified to increase performance:
  - Turn off the volume taskbar icon.
  - Make the spectrum window smaller, or turn it off.
  - FFT less than all of the data (right-click on the "wavin" indicator).

## Synthesoft FAQ Item

**Q. I have entered the registration code, but the program still tells me I need to register. What's wrong?**

**A.** The most common cause of this misunderstanding is when someone registers one of the screen savers (or one of the joint packages which contain a screen saver plus CD/Spectrum Pro), and the other screen saver remains unregistered. [As described in the registration material](#), The Psychedelic Screen Saver, The Kinemorphic 3D Screen Saver, and CD/Spectrum Pro are three separate software products. You can see which programs are registered by looking in the information dialog. From CD/Spectrum Pro, click on the "About" or "Register" button. From either screen saver, right-click on the desktop, choose Properties, the screen saver page, click the "Settings" button, then the "About" button. When the information dialog comes up, the titlebar will contain the name and version of the program which launched it. Below that, in the middle pane, will be listed which programs are registered (if any).

## Synthesoft FAQ Item

**Q. What do you do with the registration information (address, phone number, email ID, etc...)?**

**A.** Most of the information we request is used to validate credit card orders. We also use it to verify the identity of people who later ask us to resend their registration number due to hard disk crashes, etc. We ***absolutely do not*** give your information to anyone else - you will not end up on a mailing list, telemarketing list, or other such list because of us (we hate those lists too).

## Synthesoft FAQ Item

**Q. Can I add a link to the Synthesoft web site on my own page?**

**A.** Absolutely! Please follow the instructions on our link page to do so. And thanks! (The link page is on our web site at: <http://www.synthesoft.com>)

## Synthesoft FAQ Item

**Q. Once I registered, I thought I would get a CD in the mail - where is it?**

**A.** We do not ship any media - we distribute our products only via the World Wide Web (WWW). This way, any updates we post are immediately available to you for download. Also, we do not maintain any mailing lists, so for example we cannot email you to notify you when new versions are posted - just check the web site once a week or so (we probably average a new build every 2-3 weeks, sometimes more frequently, sometimes less).

## Synthesoft FAQ Item

**Q. Will there ever be a Macintosh version of Synthesoft products?**

**A.** Unfortunately, no. We've considered implementing Macintosh versions of our products, but the amount of time and energy required to maintain two separate forks of the source code prohibits us from doing so. Instead, we will apply our energy toward adding new modules, effects, and features to the Win95/WinNT versions. Our apologies to all of the Mac users out there. You can find something for the Mac that is similar to The Psychedelic Screen Saver at <http://www.imaja.com/imaja/BlissSaver.html>





