Stereograms 2 Help Index

The Index lists the Help topics available for Stereograms 2. Use the scroll bar to see entries not currently visible in the Help window.

To learn how to use Help, choose Using Help from the Help menu.

Introduction

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Stereograms 2

This program converts monochrome bitmaps into random-dot stereograms, which can be viewed on-screen or printed.

A stereogram is a two dimensional graphic that appears three dimensional when viewed properly. Stereograms have been recently popularized by "The Magic Eye" and other books. Many newspapers include stereograms in their comics sections.

The Stereograms 2 program converts monochrome bitmaps like the following:

Figure 1: Monochrome Bitmap

and converts them into random-dot stereograms like the following:

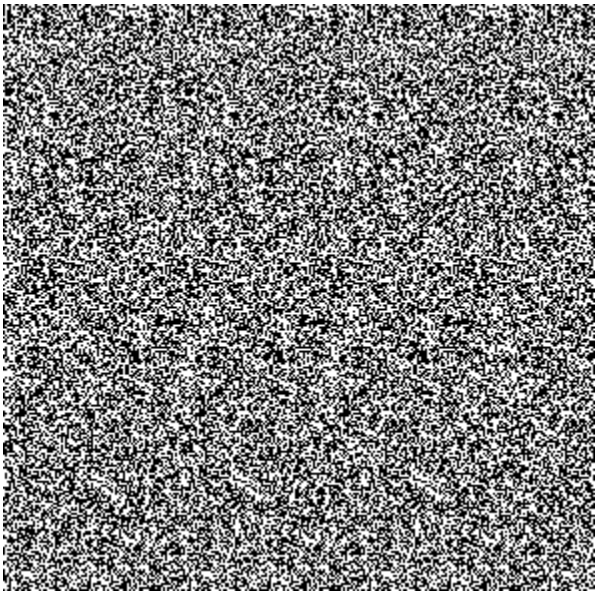

Figure 2: Random-Dot Stereogram

When you view Figure 2 properly, you will see the star floating above the background. The star and the background will both have the "snowy" appearance of Figure 2.

The Stereograms 2 program requires Windows 95, NT, or Win32s running on a '386, '486, or Pentium computer.

A 16-bit version of Stereograms for Windows 3.1 is also available.

How to Create a Stereogram

To create a stereogram, select the File menu and the Open menu item. Select a monochrome bitmap (*.BMP) file and press the OK button.

After the bitmap has been loaded it will automatically be converted into a stereogram and displayed on-screen. Then the stereogram can be printed.

To view the original bitmap, select the View menu and the Original Bitmap menu item. To view the stereogram, select the View menu and the Stereogram menu item.

The following bitmaps are included with the Stereogram program: AIRPLANE.BMP, CIRCLE.BMP, DIAMONDS.BMP, FLOWER.BMP, RING.BMP, SMILE.BMP, and STAR.BMP.

How to View a Stereogram

The ability of the human brain to synthesize a three dimensional scene from a flat stereogram is awe-inspiring. But it takes most people some time to learn how to see the three dimensional scene "hidden" in stereograms.

To view a stereogram, deliberately put your eyes out of focus. Focus at a point well beyond the stereogram. Slowly move closer to and further away from the stereogram. Allow plenty of time - eventually you will perceive a subtle depth to the scene. Finally you will see the foreground plainly visible floating above the background.

Don't settle for just a vague appearance of depth. When viewed properly, the foreground will leap up from the background. Once this happens you will be able to see each part of the raised foreground. Once you begin to properly see the image, it will continue to get clearer.

The most important thing is to relax and give it time. After some practice stereogram viewing gets much easier.

Viewing with Convergence Marks

Some people have an easier time viewing stereograms when they use convergence marks:

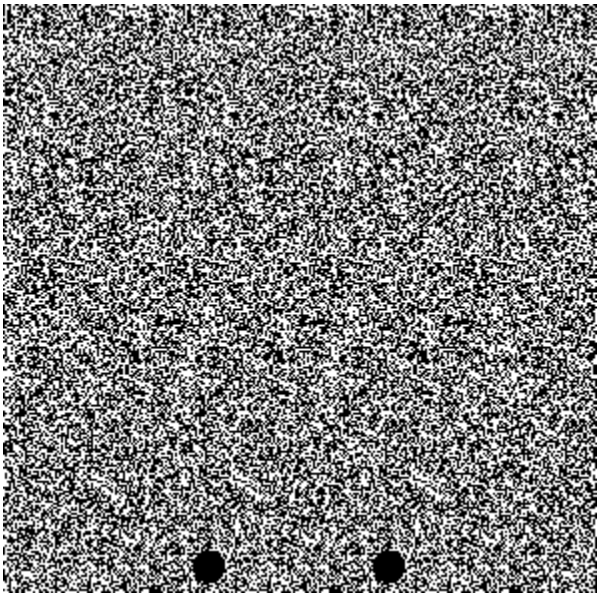

Figure 3: Stereogram with Convergence Marks

The convergence marks are the two black circles on the bottom of the stereogram.

To view a stereogram using convergence marks, first select the View menu, and make sure that the Convergence Marks menu item is checked. Then open a bitmap file. Then a stereogram will be drawn with convergence marks.

"By blinking (or covering) the eyes alternately, you can make the marks produce four images, two with the right eye and two with the left. Now deconverge your vision so that all four images can be seen with both eyes open. The aim is to move the two pairs of images closer together until the inner two coincide and only three distinct marks are seen. The center mark is binocular, while the outer two are seen monocularly (with only one eye each). Fixate on the center mark to stabilize the image, then carefully allow your gaze to wander around the whole picture." [1]

How to Print a Stereogram

To print a stereogram displayed on-screen, select the File menu and the Print menu item. Then enter the printout size, which is a number between 10 and 100, specifies the percentage of the page's width or height that will be occupied by the printed stereogram.

To preview the printout, select the File menu and the Print Preview menu item. To configure the printer prior to printing, select the File menu and the Print Setup menu item.

How to Create Your Own Stereograms

To create your own stereogram, simply create a drawing using Paintbrush or any other drawing program. Make sure that the background is white and the foreground is black. Make the images simple - avoid excessive detail.

Save the drawing as a monochrome bitmap (*.BMP) file. Then run Stereograms 2. Load the file you created by selecting the File menu and the Open menu item.

Recommended Reading

Stereogram, Cadence Books, 1994. ISBN 0-929279-85-9.

Stereogram is a wonderful book that covers the history of stereograms, stereogram viewing, random-dot stereograms, artistic uses of stereograms, and computer generation of stereograms. The book is full of stunningly beautiful illustrations. Highly recommended.

Magic Eye A New Way of Looking at the World, N. E. Thing Enterprises, Andrews and McMeel, 1993, ISBN 0-8362-7006-1.

Magic Eye is a collection of many large and colorful stereograms. Recommended.

"Displaying 3D Images: Algorithms for Single-Image Random-Dot Stereograms", Harold W. Thimbleby, University of Sterling, Stuart Inglis and Ian H. Witten, University of Waikato, I.E.E.E. Computer, October 1994, p. 40.

The Stereograms 2 program uses the algorithm published in the above article. Highly recommended for people interested in writing stereogram programs.

Publisher Addresses:

Cadence Books
A Division of Viz Communications, Inc.
P. O. Box 77010
San Francisco, CA 94107 USA

Andrews and McMeel
4900 Main Street
Kansas City, MO 64112 USA

I.E.E.E. Computer Society
Publications Office
10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, CA 90720-1264 USA

Credits

The Stereograms 2 program uses the algorithm published in the following article:

"Displaying 3D Images: Algorithms for Single-Image Random-Dot Stereograms", Harold W. Thimbleby, University of Sterling, Stuart Inglis and Ian H. Witten, University of Waikato, I.E.E.E. Computer, October 1994, pp. 38 - 47.

File Menu Commands

Open	Use the Open command to load a monochrome bitmap and convert it into a stereogram.
Print	Use the Print command to print a stereogram or the original image.
Print Preview	Use the Print Preview command to see how a printout will appear before printing.
Print Setup	Use the Print Setup command to configure your printer prior to printing.
Most Recently Opened Files	The Stereograms 2 program keeps track of the last 4 files that have been loaded. To load any of those files, select its name from the File menu.
Exit	Use the Exit command to quit the Stereograms 2 program.

View Menu Commands

Original Bitmap	Causes the original bitmap to be displayed on-screen.
Stereogram	Causes the stereogram to be displayed.
Convergence Marks	Causes Convergence Marks to appear in stereograms when checked.
Toolbar	Causes the Toolbar to be displayed when checked.
Status Bar	Causes the Status Bar to be displayed when checked.

Help Menu Commands

Contents	Displays the on-line help table of contents.
Search for Help on	Searches for help on a specific topic.

Help Using Help	Gives information on using on-line help.
How to Register this Shareware Program	Gives information on registering the Stereograms 2 program.
About Stereograms 2	Gives information about the Stereograms 2 program (version number, copyright, etc.).

The Toolbar

The toolbar contains buttons for three of the menu items:

The buttons are (from left to right): File Open, File Print, and Help About.

How to Register this Shareware Program

Stereograms 2 may be freely copied without cost, provided it is not changed in any way. If you find the program useful, please send $10.00 to:

Pocket-Sized Software
8547 E. Arapahoe Road
Suite J-147
Greenwood Village, CO 80112 USA

Other Shareware Programs from Pocket-Sized Software

Program Name	Description	Requires	Windows 95, NT, and Win32s Version
Astronomy Lab	Astronomy program for MS Windows 3.X	Win 3.1	AVAILABLE
Astronomy Clock	Clock for astronomy enthusiasts	Win 3.1	AVAILABLE
Bog	Word search game	Win 3.1	AVAILABLE
Bomb Squad	Logic Puzzle	Win 3.1	AVAILABLE
FracView	Fractal viewer	Win 3.1	AVAILABLE
Hangman	Hangman game	Win 3.1	AVAILABLE
MIDI JukeBox	Plays multiple MIDI files on sound card	Win 3.1	AVAILABLE
Puzzle-8	8 tile puzzle	Win 3.1	AVAILABLE
RCALC	Talking RPN calculator	Win 3.1	AVAILABLE
Stopwatch	Clock/stopwatch program	Win 3.1	AVAILABLE
Talking Clock	Talking clock	Win 3.1	AVAILABLE
Telephone Puzzle	Word Game	Win 3.1	AVAILABLE

"Displaying 3D Images: Algorithms for Single-Image Random-Dot Stereograms", Harold W. Thimbleby, University of Sterling, Stuart Inglis and Ian H. Witten, University of Waikato, I.E.E.E. Computer, October 1994, p. 40.