# **Short Description**

Welcome to the Enigma Puzzle – a game as difficult as the Rubik's cube. This puzzle was invented by Douglas A. Engel and it consisted of two intersecting disks in a plastic holder. This is an adaptation for computers running a windows OS (XP, Vista, Windows 7).

#### Overview

In the middle of the screen you see the actual playing area. It consists of two circular disks that are intersecting each other. On each disk, there are six *stones* alternating with six *bones*. The *stones* look like overweight triangles, the *bones* as malnourished rectangles.

Since the disks are intersecting, they share two stones and a bone. If a disk, let's say the upper one, is rotated by 60 degrees, then one stone and one bone that had previously also belonged to the lower disk are replaced by a new stone and new bone.

Right next to the playing area there are four buttons arranged with little arrows. With these buttons, the two disks may be rotated. **7** means, for example, that the upper disk shall be rotated 60 degrees to the left (anticlockwise). More information is available in the next section.

The rotations can also be initiated with an intuitive mouse movements (or on a touch screen with a finger gesture). This requires a mouse click on the appropriate disk and then a mouse move while holding the mouse button pressed. When you release the mouse button, the rotation is executed. With a touch screen you can do that with the finger.

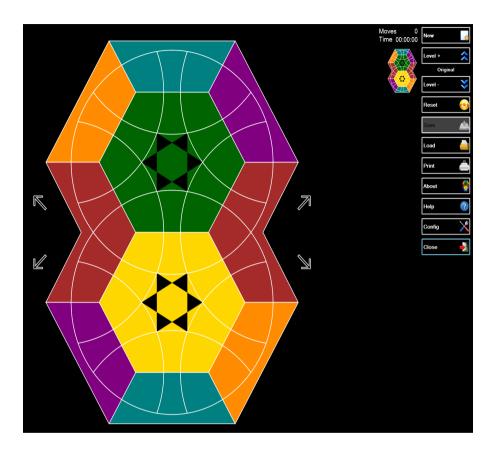
On the right side of the screen you will find a series of buttons with which the game can be controlled. The functions of the buttons are described in detail below.

When you first start the game the level is set so that the playing area looks like the original puzzle by Douglas A. Engel (this is the second highest level). It is however recommended to start with simpler levels. Click on the button *Level* - to reduce the game level. Just above the button, the current level is displayed. The active level is stored and during the subsequent launch of Enigma restored.

Click on the button **New** to start a new game. Right next to the buttons for the setting of the game level you will find the original configuration of the currently selected level. There you can see how the disks have to look to solve the puzzle.

You may pause a running game by just closing the programm. The next time you start it the game will be restored and continued.

# Enigma-Puzzle



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#### The buttons



This starts a new game. The disks are randomly rotated a few times. How many times the disks are rotated, and whether the rotations are displayed, you can set in the configuration dialog.

Before turning the disks are brought into the starting position of the actual game level



Brings the playing area back to the original state of the current game level. A started game will be canceled.



This feature allows you to save the current state of a game, so you can play later on. You get a *Save As* dialog and you can specify a file name for the current score. The file type must be set to *Enigma*.

You can also save just the image as a JPEG file. Then select the *Save As* dialog with the file type (Image).



This loads a saved game. You'll get a *FILE OPEN* dialog where you can select the file with the saved game.



This increases the difficulty of the playing area. The playing area is brought into the starting position of the level.



This reduces the difficulty of the playing area. The playing area is brought into the starting position of the level.



With this button you can print out the playing area. It prints only the actual playing area on one sheet. The print uses the default printer.



A small dialog is started which provides some information about the program.



Here you find the instructions to the program. It appears this instructions as a PDF document. This of course only works if a PDF viewer is installed.



Clicking on this button launches the configuration dialog.



Quits the program.

### Playing

When you start a game (*New* button), the computer rotates the two disks randomly to the left or to the right so that the parts come to lie at other positions. How often the computer should turn and if the rotations are displayed can be specified in the configuration. Goal of the game is of course to bring the disks back to the original positions by turning the disks. How you can rotate the disks is explained in the following section. The frame is always fixed and sets the target position of the colors.

## Turning the disks

The two disks in the playing area can be easily turned by clicking on one of the buttons with the little arrows on it. The buttons have the following meanings:

- rotate the upper disk 60 degrees to the left (anticlockwise)
- rotate the lower disk 60 degrees to the left (anticlockwise)
- rotate the upper disk 60 degrees to the right (clockwise)
- rotate the lower disk 60 degrees to the right (clockwise)

#### Turning with the mouse

The rotations can also be initiated with an intuitive mouse movement (or on a touch screen with a finger gesture). This requires a mouse click on the appropriate disk and then a mouse move while holding the mouse button pressed. When you release the mouse button, the rotation is executed. With a touch screen you can do that with the finger. The program takes the starting point and the direction of the mouse movement to calculate the rotation. Try it out.

In the center of the playing area, where the disks overlap, everything above the center line of the playing area belongs to the upper disk and everything below that line to the lower disk.

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