

# **Twister**

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**COLLABORATORS**

	<i>TITLE :</i> Twister		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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**REVISION HISTORY**

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# Chapter 1

## Twister

### 1.1 Twister Documentation

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Twister
*****

This is the documentation for Twister V0.38(beta), the Ultimate
Rubik's Cube Program. Copyright © 1996-1997 Argyris Maistralis. All
rights reserved. Program and documentation by me.
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~Introduction~
~Disclaimer~~~
~Requirements~
~Installation~
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~Usage~~~~~
~History~~~~~
~Todo~~~~~
~Credits~~~~~
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MUI~is~Copyright~by~Stefan~Stuntz.
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### 1.2 Introduction

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Introduction
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Twister is a very ambitious project. It is supposed to be the ultimate simulator, solver and tutorial of Rubik's cube and other similar puzzles. This is the very first beta release of Twister and it is not at its final state nor it has its final look. The only puzzle available by now is the NxNxN Rubik's cube and you can only have one puzzle window open. Twister is under development and this is just a sample. (I took the 0.37 version, fixed a couple of obvious bugs, named it 0.38beta, and released it.) Only a 68020+fpv version is included in this archive because the drawing routines are completely unoptimized and still very slow. So you need a fast machine to run it.

### 1.3 Disclaimer

Disclaimer  
\*\*\*\*\*

Twister IS PROVIDED AS-IS. I AM NOT RESPONSIBLE FOR ANY KIND OF CONSEQUENCES ON YOU OR ON YOUR SYSTEM FROM THE USE OF THIS SOFTWARE. USE IT AT YOUR OWN RISK.

Twister is distributed as freeware.

### 1.4 Requirements

Requirements  
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Even though Twister was built using an Amiga3000 68030+fpv 16MByte OS3.1, to use Twister you need an Amiga running OS 2.04 or higher,

MUI  
3.3 or higher and 68020 or better.

### 1.5 Installation

Installation  
\*\*\*\*\*

Simply extract the archive in the directory where you want the Twister directory to reside.

### 1.6 Overview

Overview  
\*\*\*\*\*

Twister 0.38beta simulates a Rubik's cube from 2x2x2 up to 7x7x7 in a

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colorful perspective or parallel 3D view. You can rotate the cube using sliders or you can perform some turning by clicking on the control panel buttons. Every movement is performed in real time. The colors and the size of the cube can be changed by the user. The window can be resized making the cube to resize as well. The program can't solve the cube yet; you can only scrabble it. You can choose the speed of the animations according to the speed of your computer.

## 1.7 Usage

Usage

\*\*\*\*\*

As this only a beta version there are no menus, keyboard shortcuts, or other usefull things, but only the basic gui (Using The Great MUI).

The main (and the only) window consists of the

view~area

,

the

puzzle area

, the

setup~area

and the

display~area

.

## 1.8 View Area

View Area

\*\*\*\*\*

Around the viewing window there are four sliders and a button. You can use the sliders to change the heading, pitching, banking and distance of the cube, and the button to reset the view to the default.

## 1.9 Puzzle Area

Puzzle Area

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From here you can choose the puzzle (only Rubik's cube for now), and change the cubes size. Also you can load or save the settings, iconify the program or change the MUI settings.

## 1.10 Setup Area

Setup Area

\*\*\*\*\*

The colors that are used to draw the cube puzzles can be selected from here. You can also tell Twister to scrabble the puzzle by its self.

## 1.11 Display Area

Display Area

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The four sliders and the button do the same things as the

View~Area

ones. Here you can select how the cube will be displayed. Parallel ↔  
and

perspective viewing types are available, animations can be fast, medium or slow, and the aspect ratio of the view can be 1:1 or 2:1 so that the cube will be "cube" in any screen mode. The sliders around the view, the outlining of the puzzle and the animations can be turned on or off from here.

## 1.12 History of Twister

History

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Version 0.10

My first work on twister. Never Finished. Never Released.

- \* Just a window with a single cube view opened on a custom colored screen.
- \* When the window is resized the cube is resized changing its aspect ratio.
- \* Only static Parallel view mode.
- \* No animations.
- \* Font insensitive.
- \* NxNxN cubes with N>=2. Size selected only at startup.
- \* Movements performed using mouse button compinations on the view window.

Version 0.20 and above

Now Using

MUI

and written almost from the begining. Still under development.

## 1.13 Todo list

ToDo

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Some of the things I must do:

- \* Allow many different puzzle windows be started from a central puzzle manager window.
- \* Optimize and expand the drawing code.
- \* Make 68000 version possible.
- \* Compile 680x0 versions.
- \* Build solving code for the 3x3x3 cube and/or for the NxNxN cube.
- \* Use localization.
- \* Add menus and keyboard shortcuts.
- \* Allow turnings performed by the mouse on the view area.
- \* Allow the user to 'paint' the puzzles.

Some of the things I should do:

- \* Implement a few other puzzles such as Skewb, Octahedron, Tetrahedron etc.
- \* Add an Arexx interface.
- \* Immediately check if particular color setups can be solved.

Some of the things I could try to do:

- \* Solve the Skewb, Tetrahedron and/or others.
- \* Implement solving algorithms other than my own.
- \* Implement some tutorial sequences.
- \* Making patterns.
- \* Improve my english.
- \* Graduate from university.

## 1.14 Feedback

Feedback

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During the development of Twister I had no problems on how Rubik's cube looks and moves. Even here in Greece everybody has one such cube in home. But as soon as other 3D puzzles are concerned, you simply cannot find one here. So I will be having problems in implementing any of these puzzles, because I have never seen or twisted any of them. So if anyone wants to waste his/her time by sending me descriptions of such puzzles, please do. I can't promise anything in return for your information, but letting you know when new versions of Twister are available. Suggestions on how Twister should look are also wellcome.

My email address is: [e193637@zeus.central.ntua.gr](mailto:e193637@zeus.central.ntua.gr)

## 1.15 Credits

Credits

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Greetings to all the active Amiga users and cube lovers. Go on twisting the cube, and supporting the only computer for the creative mind. Many thanks to Stefan Stuntz for his great

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Magic~User~Interface

. And don't

forget that Rubik's cube was built by Erno Rubik, a Hungarian Professor of design.

' We turn the Cube and it twists us. '

Erno Rubik.

## 1.16 MUI

This application uses

MUI - MagicUserInterface

(c) Copyright 1992-97 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With the aid of a preferences program, the user of an application has the ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing lots of examples and more information about registration please look for a file called "muiXXusr.lha" (XX means the latest version number) on your local bulletin boards or on public domain disks.

If you want to register directly, feel free to send

DM 30.- or US\$ 20.-

to

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80935 München  
GERMANY

Support and online registration is available at

<http://www.sasg.com/>

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