

P.D.B Software  
*presents*  
*Guy Argo & Mark Dunlop's*  
**3D Noughts And Crosses**  
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## Introduction

3D Noughts and Crosses is a version of noughts and crosses (tick-tac-toe) which is played on a 4x4x4 three dimensional board. The object of the game is to place four crosses in a straight line in three dimensions, however the computer player is trying to do the same with noughts.

## Levels of play

There are three levels of play in this version of 3D Noughts and Crosses:

Hard & Fast: a zero look ahead computer player with a very fast response time

Harder: a one look ahead computer player with a response time of roughly a few seconds

Impossible & Slow: a two look ahead computer player with a response time of roughly a few minutes

## MultiFinder™ Usage

Under MultiFinder you can swap out to other applications while the computer player is thinking, you have access to other application windows and the menu bar while the computer is thinking. A standard memory allocation of 150K is given for the application, if you find any problems running 3D X&O then try increasing the applications memory allocation.

## Beta Release

This version of 3D X&O is a beta release, if you find any bugs or have any suggestions for improvements please mail me stating the precise nature of the bug or the improvement you would like. The following are planned for version 1:

- time based search algorithm giving more flexibility over level of play
- option for computer to go first
- save & restore facilities
- computer player thinking during human players time
- high scores table based on play level, board fill, and who won
- saving of various parameters (e.g. window locations, last play level)
- implementation of 'hints' suggested on the inactive Game menu
- on line help pages
- improved display of the board

## System Requirements

This application shall run on a Macintosh Plus or any newer Macintosh and requires approximately 150K of free memory to run. The Macintosh must also be running system version 4.2 or greater. 3D Noughts and Crosses has been tested on a Macintosh Plus, IICx, and an SE/30 all running system 6.0.4, however it should run on all present and future Macintoshes. At release date suitable Macintoshes are the Macintosh Plus, SE, II, SE/30, IICx, IIX, IIFx, IICI, Classic, LC, IISI, and the portable.

## Shareware Scheme

This application is distributed under the understanding that if you use the application then you will send a small sum of UK £10 (15 ECU or US \$20) to repay some of the time spent developing the application. You may copy and distribute the software (on a non-commercial bases) so long as you do not keep a copy for more than 14 days without sending your shareware contribution. The application must not be altered, the copyright warnings must stay in place, and this file must also be distributed with the application. Any failure to adhere to these copyright rules will be considered as an infringement of this agreement and any copies will be deemed illegal.

Companies or individuals wishing to package this application with other software should contact the authors. Persons wishing to translate the application into a non-English language should also contact the authors.

## Upgrades

Registered users shall receive notice of any upgrades to the software. The upgrade shall be posted in a similar manner to this version but may also be obtained on disk in response to the letter informing you of the upgrade. There shall be no charge made to registered users (except to cover disk & postage if required) for version 1.0 of the software or for any future beta releases. P.D.B. Software reserve the right to ask for a further shareware contribution for version 2.0 or later.

It is PDBs policy not to charge for bug fix releases, but we may charge extra for versions with major new functionality - no charge shall be made for upgrades from beta version (e.g. version 0.4) to version 1.0 or for bug fixes (e.g. v 1.0 to 1.1).

This statement does not bind P.D.B software to release any future versions of the software, however, this is more likely if the application is successful. A future version 1.0 or future beta version fixing any bugs from 0.4 is guaranteed to registered users.

## Sending your contribution and comments

Comments and shareware contribution may be sent to:

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Scotland, UK

Please make cheques payable to P.D.B. Software.

Comments and bug reports may also be sent by e-mail to :

ARPA: mark%cs.glasgow.ac.uk@nsfnet-relay.ac.uk  
USENET: mark@cs.glasgow.uucp  
JANET: mark@cs.glasgow.ac.uk

or

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USENET: guy@cs.glasgow.uucp  
JANET: guy@cs.glasgow.ac.uk

*Thanks for reading this message, I look forward to hearing from you. Enjoy 3D  
Noughts and Crosses,*

*Guy Argo and Mark Dunlop*

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