## CyberMind v1.0

1997 by CyLog Software

Welcome to CyberMind! A game designed to satisfy both mind and vision. It is a clone of the popular puzzle game, and gives you the opportunity to play the game in different difficulty levels.

CyberMind was made for two particular reasons. First, we wanted to contribute to the world a different type of game. A visual attraction to the eye, something beyond the "rectangular window world", something that moves and reacts in a different way, something that Kai Krause taught us. The second reason was to make a program that solves the popular mind bending game and help people learn more on combination resolving. CyberMind can give you a hint to solve the actual puzzle.

Have fun!

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### Interface

CyberMind's interface is not at all familiar. The game does not even have a title bar or a border. It uses true color images, and therefore a display adapter with the capability of 65,536 or true color resolution is required to view the beauty of CyberMind. The optimal display resolution is 800x600 pixels, but in greater resolution, CyberMind looks a lot better.

### Moving windows

To move windows simply click on their surface (not on a "<u>hot</u>" area) and while holding the mouse, move it around. This will move the window along with its contents. You may experience some delay in redrawing the image in some slow graphic adapters, but this is ok although CyberMind is greatly optimized in image display.

### **Clicking on buttons**

Several buttons are placed in CyberMind's windows. Moving the mouse pointer over a button, usually makes this button lit! Some buttons do not react to this movement such the selection of the combination in the Options Window.

When a button is lit, click it with your mouse, just once, to activate it.

Window positions are maintained throughout executions of the program, and the general interface will remain as left the last time you used the game.

### Commands and Keys

To the right of the main program window, you can find a cluster of buttons arranged in a circular order.

In the center is the <u>Evaluate</u> button and around it are the following buttons, starting from 12:00 o'clock and turning clockwise:

New, Options, Hint, High, About, Help, Exit

The are also two buttons on the top-left corner of the cluster. These are used to toggle the viewing of the <u>Timer</u> and the <u>Combinations</u> windows.

### Shortcut Keys

Help		
New		
New, Hint and Evaluate all in one		
Options Hint High		
Timer Window On/Off Combinations Window On/Off		
Evaluate		
instead of choosing <b>Ok</b> in several Dialog Boxes instead of choosing <b>Cancel</b> is the Options Dialog Box		

### The Windows

Apart of the main window, several extra windows appear in the game and need some explanation:

<u>The Main Window</u> <u>The Options Window</u> <u>The High Score Table</u> <u>The Timer Window</u> <u>The Combinations Window</u>

### The Main Window



This is the main window of the game. You can see the most important components in the image.

Double Clicking everywhere in the window (except buttons and hot places) will fill the playfield with holes. You can see other windows that are underneath CyberMind (unique effect!). Try it! Double-click again to fill the holes of the playfield with black color.

### The Options Window



The Options window contains the settings for the current game. After making changes, pressing **Ok** will start a new game using the options you selected. Pressing **Cancel** will abort the changes and return you to your current game.

### Settings:

Spaces 4 or 5

Choose between four or five spaces that the combination will have.

### Colors 6, 8 or 10

Choose the number of colors that can be used to build up a combination.

### Doubles Yes or No

Yes, means that a combination can contain a color two (or more!!!) times. This makes solving a lot more difficult.

No, means that every color is used exactly once in a combination. Try this if you are a novice player.

#### **Combinations:**

To give you a hint about the difficulty of each setting, here is a table of the combinations that are possible using the above settings:

	No Doubles		Double or more possible	
	4 spaces	5 spaces	4 spaces	5 spaces
6 colors	360	720	1,296	7,776
8 colors	1,680	6,720	4,096	32,768
10 colors	5,040	30,240	10,000	100,000

#### See also: <u>Tactics</u>

### The High Score Table



This is the High Score table window. Arranged in rows and columns are the best scores achieved by the current user of your computer (probably you). Every score is given as two numbers separated by a slash (/). The first is the number of attempts you made and the second is the number or seconds it took you to find the correct combination.

The number of attempts is the most important one. This means that fewer attempts make a new high score. When the number of attempts is the same as a previous score, less time is better.

### **Reset Scores**

The Reset Scores button, clears all high score entries. To clear only one high score entry just double click on it.

### The Timer Window



This is the Timer Window. In the left-hand box is displayed the number of seconds elapsed since the start of this game. In the right-hand box, is it displayed the high score of this game setup, if there is one.

In the image above you can see, that we started this game before 11 seconds and the best score in this level, has been made in 5 attempts and 165 seconds.

### The Combinations Window



In the combinations window, you can see the number of combinations left, after the past attempts in the game. While you try to solve the problem, CyberMind tries also to solve it, making it possible to give a hint, every time you request it.

If you see for example, that there are 259 combinations left, this means that during play, the combinations you built and the results you got have eliminated certain combinations, and now the only possible solutions are 259. Pressing hint at this time will select one of those possible solutions and display it in the current row of the main window. If you see a 1, it means that CyberMind is now able to determine the one and only solution. So think clearly and find it alone, because using hints does not count in High Scores!

### How To Play

CyberMind is a quite simple game to play; yet, it requires strength in mind, in order to find the secret combination. After starting a **new** game, a combination is placed in computer's memory. Using the colored spheres in the left area of the main window, enter your combination starting from the lowest row and press the **Evaluation** button.

CyberMind will reply with a number of white and red pegs right next to your combination.

A **Red Peg** means that one of the colors is right and is in the right place. A **White Peg** means that you have found a color but it is not in the right place. There is no

Then the game goes on, until you find the combination or make use of all the 12 attempts you have.

### Note:

Combinations are placed from bottom to up, and you cannot place a colored sphere in a wrong row (e.g. not the row you should play).

See also: <u>Placing Colors</u> to find out which way you should use the interface and <u>Tactics</u> to learn how to win

### **Placing Colors**

Colors can be placed either by dragging and dropping from **anywhere** in the main window, or by right-clicking a color. Right-click places automatically the color you selected in the first available place in the current combination (from Left to Right).

You can drag a previously used sphere from another combination. Not only from the left-side area which contains all colors.

### Checking Color Existence

If during play you are sure that one colors exists in the secret combination, or another color does not exist, then you can **click** on the balls in the left-hand side of the main window while holding down the **Ctrl** key. This will place a small **X** mark on the ball. Doing this twice will place a small **O** mark on the ball. Repeating that again will remove the small mark from the ball.

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### **Tactics**

There are two main variations on this game. In the <u>Options</u> window, you will find the Doubles Yes/No setting. If you select **Doubles**, means that a combination may contain one color two or more times. For example:

#### Red-Red-Blue-Red-Yellow

If you play without Doubles, then the combination may contain each color only once.

In the following examples colors will be substituted by numbers.

### **Playing without Doubles**

Start with a combination with many colors (e.g. 1-2-3-4). After some play check for combinations that have many colors in common but different results. For example if :

1-2-3-4 gives you 0 reds 3 whites 2-3-4-5 gives you 0 reds 2 whites: 3-4-1-6 gives you 1 red 2 whites

**Rows 1 and 2:** by replacing 1 with 5, you have one color less, so 1 exists but 5 doesn't. **Rows 1 and 3:** by replacing 2 with 6, we have no change in the number of colors found. So if 2 exists then 6 exists too, if 2 doesn't 6 doesn't either.

Finding differences like these, will make you a great player. So, practice!

After finding out which colors exist, then you should find the exact position of them. The previous combinations will help you. Where did you get red pegs? Where did you get whites? Why? All these questions must be answered in order to reveal the secret combination.

#### **Playing with Doubles**

Try to start like without Doubles. First, you should find out which colors are being used. Later, you will be sure that if a double (or triple or whatever) exists that will be one of the colors in use.

The previous results will help you with this task.

A helpful "strategy" is to try a comb with only one color. This will show you how many times this color is used. This is a very **bad** practice however, but in your first steps it may prove worth trying.

#### Playing safe

Remember not to make mistakes like placing a color in a position that it is impossible to be as in the next example:

1-2-3-4 gives you 0 reds and 1 white.

You decide to keep color 2, and add colors 5, 6 and 7. **Don't** place 2 in the second position because 2 is not there, that's for sure (check why). So try this:

5-6-2-7 and assume that it gives you 0 reds and 2 whites.

You can't be sure that 2 exists, but if it does, it is certainly not in the second or in the third position.

This way you simply go on forward trying not to make a mistake that will give you information you don't need.

### The Design

The design of this game, took a long time, longer than coding, but we think it is worth it. **CyberMind** claims to be the most beautiful program in your hard disk, the most awkward and most impressive one.

We have used **Adobe Photoshop v4.0** for all image manipulation. The plastic 3D look of the main window is a result of the use of **Lighting effects** and many other built-in filters. Kai's **"Spheroid designer"**, from the collection of **Kai Power Tools v3.0** plugins, has been used to make the colored spheres, and **Alien Skin's "Glow"** and **"Drop Shadow"** have been very helpful in creating text.

The shape of main window is perhaps a bit weird. We wanted the window to be a container for our staff, little colored balls and buttons. We didn't fit all these things in a rectangular window, cause they didn't fit. Of course we could make a rectangular window, and pretend that this suits our needs and place a menu and

all things straight in rank and file like soldiers. But this is easy and certainly not attractive nor challenging.

Here is a quote that precisely describes what we think and explains the whole philosophy behind CyberMind:

"When I see Windows 95 imposing these structural guidelines, down to how things work, where they're placed, how the buttons look... that to me is fascism. It certainly is not a good thing" *Kai Krause* Metatools

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### Freeware - Registration - Contact

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If you like this game and you want to become a registered user and receive future notifications on other CyLog Software products by e-mail, then:

# e-mail your praise, comments and everything you want to tell us, to: cylog@hyper.gr

to contact directly the authors e-mail to: ksymeon@hyper.gr or itsouk@otenet.gr

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Kostas Symeonidis Skiathou 14 GR-54646 Thessaloniki GREECE

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### About the Authors



Kostas Symeonidis & John Tsoukalidis the designer & the programmer

*Kostas Symeonidis*, is a mathematician and computer programmer, teaching and writing commercial software for a living. He's made numerous utilities and small games in the past years; some of them have been released to the public domain. You can sent an e-mail to **ksymeon@hyper.gr** or visit his web page at: http://hypernet.hyper.gr/~ksymeon/

*John Tsoukalidis*, a 14-year-old student, is a very promising computer programmer, preparing to attend the International Olympiad in Informatics IOI 97 in Cape Town, South Africa. He is training with his coach, former teacher and friend K.Symeonidis, and in their free time they write programs like this... You can send him an e-mail to **itsouk@otenet.gr**.

In **CyberMind** Kostas made the visual design and John wrote the code (a very nice yet easy... exercise).

the surface of a button or an object that reacts on mouse clicks

Use it to evaluate the combination you selected. You must fill all the spaces first with colored spheres.

Use it to start a new game, using the current setup.

Use it to open the <u>Options</u> window, to select a different game setup.

Use it to display a hint. The hint replaces the combination in the current row. If you request a hint your score will not be considered a high score, except if you hint for your first combination (this will give you the first colors of the color-table).

This button show the <u>High Score Table</u> window.

The about button show the about dialog of the game.

This will launch the windows help system to view this help file.

Use it to exit the program.