





Reference Guide and User's Manual

-www.syneticsystems.com-

### Introduction

Congratulations! You now own a powerful new tool for personal growth. Mental Games includes a series of biofeedback-enabled training programs, specially designed to help you achieve the following goals:

- Quickly shift from relaxed to highly focused states of mind/body integration and back again.
- "Fine-tune" your ability to pay close attention.
- Stay calm in difficult/stressful situations.
- Achieve sustained states of mental clarity.
- Plus much more!

# The Mental Games Concept

In modern society, we are exposed to many forms of stress. It's often difficult to avoid the sources of stress, but you can learn to react to it in a more efficient or even in a more intelligent way. Learning these new strategies for stress management will enable you to unlock the full potential of your inner energy resources.

The Mental Games multimedia software analyzes the tiny changes in your skin resistance values (GSR) sent by the ThoughtStream<sup>tm</sup> biofeedback system to your personal

#### -NOTICE-

Mental Games and ThoughtStream are intended for use as tools for enhancing consciousness, promoting relaxation and personal growth. They are not intended for use as medical diagnostic or therapeutic devices, and no medical claims of any sort are made for them, either singly or in combination.

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incorporate into Mental Games, please contact AudioStrobe directly at info@audiostrobe.com May be we can help you in realizing your ideas by developing a new module, for yourself or to share it with other users of Mental Games.

A very pleasant voyage to you!

——Andrzej Slawinski, creator of *Mental Games* 

of mind: "When I am focused and relaxed give me more!"

### "Netgames"

This small collection of games can actually run in real time via the internet! If you have internet access on your computer and you are a registered user you can use "NetGames" for loading new game modules. They will communicate with the main game giving you all the possibilities of positive and negative loops. The "on the disk" samples of the *NetGames* are simple but very effective strategy games: in mental and abstract thinking as well.

## Playing with different settings

Try different sensitivity and time scale options to find your own optimal settings for each state of the training.

Try to speed up the games or increase the sensitivity of the biofeedback loop after some experience. You will find out that your attention, ability to relax will change from day to day and playing the Mental Games will let you develop—both consciously and unconsciously—new behaviors and strategies, which you suddenly find yourself applying to everyday situations. Think on your ability to relax and concentrate during such stressful situations like doing exams, or becoming totally immersed "in the moment" in sport activities and having the ability to relax and regenerate after them at will.

### **Custom Game**

There is a reserved place in *Mental Games* for custom made modules. If you have an idea which you want to

Training modules of Mental Games "feel" how much you are focused and relaxed and will change their response according to your mental state.

Using this combination of multimedia technology and biofeedback, you enter a new dimension of personal training. Playing Mental Games will help you in changing your habits regarding learning, concentration and relaxation. You may soon notice that you are more relaxed in your everyday life, being more present and focused without "burning out." You will learn different strategies of interaction—your own strategies—preserving and developing your valuable inner resources.

We plan to produce seven "levels" of Mental Games, together with a range of helpful add-ons. Currently we are working on a personal database, to allow you to analyze your progress over time in much more detail; integration into an online personal training system; and sports performance training. We also are at work on a multichannel biofeedback system to further enhance your Mental Games experience.

There are two levels available in this version of Mental Games. Level 1, "Psychophysiological" and Level 2, "Sensomotoric".

**Level 1** includes a group of basic biofeedback exercises. Here you can learn to move objects on the screen as you learn to become relaxed and focused. In this sense it's a "classical" biofeedback training application.

There are 4 different stages in Level 1, each more diffi-

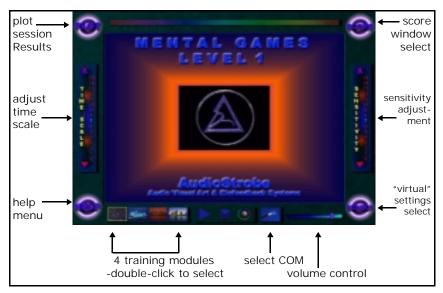


Figure 1.

cult than the last. Starting with stage "A," try to progress through stages "B", "C" and "D". You may also start from any other stage. You select the stage of your choice by clicking on one of the four small pictures on the bottom left of the Level I screen (see figure 1).

Before you start training in Level 1 we suggest that you personalize your virtual settings. You start this process by clicking the "select" button on the bottom-right of the screen. You will be presented with four rows of seven pictures, each corresponds to one of the four stages A through D. These pictures will become the background images for your Level I training sessions. You may also select the moving object which your biofeedback will control by clicking on the object at the bottom left of this screen. When done, click on the exit

TIP: As an advanced user you may lower the sensitivity and speed up the objects, which will force you to be in control of more extreme psychophysiological changes.

laxation sessions, for learning just how far your GSR reading can drop while relaxing, and for general "chill out" applications. You can also use it with light/sound machines as a means to verify the effect the session is having on your physiology. In this case, try plugging your headphones into your PC's headphone output.

### "Insects" and "Drops"

These two modules work with so called positive and negative feedback loops. In each game you will be asked to catch some moving objects. In *Insects* these are ants, which have to be changed first into "ladybugs"; clicking on a ladybug causes it to "fly". This game is especially helpful for increasing your spatial abilities.

With *Drops* you catch as many falling drops as you can with your "bucket." This one integrates eye/hand coordination with perception of vertical movement, and may be especially well suited for use with children who have difficulty concentrating.

Use the difficulty-select buttons on the bottom left of the screen to toggle between three modes: normal, and positive.

When you choose the positive loop the speed of the objects will increase when you get stressed, or decrease when you concentrate and relax. The training supports you in finding your own optimal mental strategy. The negative loop, where the objects will accelerate when you are focused and relaxed is for more advanced users, who want to be challenged while in an optimal state

embedded in "clutter": that is, increase your visual "signal to noise" ratio.

In "Digits" you have to click on the numbers in sequence (1,2...), which are randomly distributed each time you play. You work to "beat the clock" while staying calm.

In "Focus" you learn to train your attention and reaction times as well as memory. This module was specially designed for sport like activities, where you have to be ready for any sudden reaction and action. The most difficult version of this may also improve your peripheral vision.

#### "Mandala" and "Music Plot"

These are more "passive" modules. In "Mandala" you can mentally control direction and speed of rotation of several objects. You can also set a background sound loop to support you in reaching a desired mental state. You can choose from relaxing, exciting, exotic or even trance-like sounds simply by clicking on the little colored spheres on either side of the display. Note also the sensitivity ("amplify") and "time scale" settings at the top of the screen. The time scale may be adjusted from between five and sixty minutes; this is how long the session runs.

*Mandala* is recommended for meditation, energizing or trance-induction.

With "Music Plot" you can learn to control music with your thoughts and feelings while watching a real-time display onscreen. This module is ideal for long, deep re-

button to return to the Level I screen. At this point you are ready to start your session. However, there are two additional settings you will eventually wish to personalize: **sensitivity** and **time scale (speed)**.

"Sensitivity" refers to how large a difference there is in your minimum and maximum GSR responses. For some people a range of only 25% is required for such "full scale" response, while others require as much as 1,000%. We suggest that you start your training with the default setting and change the setting based upon your actual results.

"Time scale" refers to how fast the objects on the screen respond to changes in your GSR response. Again, it is best to start with the default setting, and change it as necessary.

Both settings are controlled by a left click-hold-drag of the mouse.

**Keeping Score.** There is a simple score window, reporting your results for each stage. You can printout your personal scores and follow your progress.

In the *Plot* window you can draw a diagram of your last session with a simple statistic like start and average value, maximum and minimum GSR change in percent or kilo ohms (kOHM; for the hard-core user). Here you can save and load the sessions data or print it out. The plot window functions for Level 2 as well.

Starting a session. Follow these steps;

- Start Mental Games and select Level I.
- Connect your ThoughtStream to the PC, place the sensor snugly on your hand, and turn it on.
- Select one of the four training modules by left-

- double-clicking it.
- Select the COM port if requested to do so.

Once you've completed these steps, you should see a clock-like display on screen while ThoughtStream calibrates itself, then the session will begin.

Level 2, the "Sensomotoric", consists of a number of independent modules for active training of your responses. While Level I was intended to allow you to train your GSR either up or down or both, Level II is intended to develop more narrowly focused skill sets, with your GSR being monitored and displayed on screen in real time and logged to a data file. You can use most of the modules with or without ThoughtStream.

This series of modules have been structured as games of skill. Each one may be played at three or more levels of difficulty.

The goal in playing these games is to achieve the highest score while in an optimal mental state. The total score includes both your sensomotoric (eye/hand/reflex) and mental skills. Each module has several versions differing in difficulty or some biofeedback options.

Every module incorporates the same basic interface, as shown in Figure 2. On the left and right sides of the

**Tip:** Use MG II *without* ThoughtStream to practice and to sharpen your skill-sets. Use MG II *with* Thought-Stream to monitor and control your psychological stress level, perform "systematic desensitization", and chart your gains over time.

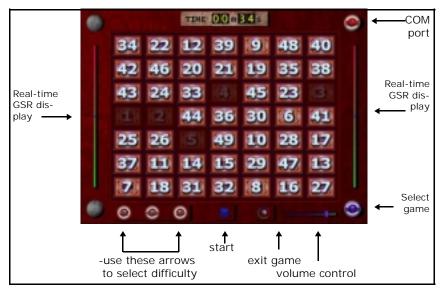


Figure 2.

screen is a "real-time" display of your GSR. The indicator is higher when you are feeling more anxious or stressed, and lower when you are more relaxed. Typically you will want the indicators to remain fixed or move lower during the game.

Use the three arrow buttons on the bottom left of the screen to select a level of difficulty for the game, and press the large arrow button in the bottom-center of the screen to begin your training.

There are several groups of modules in Level II:

# "Digits" and "Focus"

These are ideal for improving concentration and learning to focus on the "big picture" while maintaining attention for individual details. They also help you learn how to perceive meaningful/important details that are