

# About This Guide

## ***About ThoughtCaster***

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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## 1 Neurofeedback and Effectiveness

The Attention Trainer™ is a consumer-oriented application of a technology that has been used for the past 25 years for a variety of training, athletic, health, and performance purposes.

NASA has used this technology to train pilots to maintain their levels of attention; clinicians have used the technology to help people improve in areas such as attention skills; and Olympic athletes have incorporated the technology into training regimens to help improve their control of both their bodies and their minds.

This painless and non-invasive technique is best described as a learning exercise that trains people to control their brainwaves. When a person trains to become aware of their brain activity in real time, they can learn to positively control their brainwaves. It is, quite literally, exercise for the brain.

The area in which this technique has been used the most, with the largest number of studies produced, is establishing clinical protocol to help children with attention difficulties improve their ability to focus.

More than 35 studies, conducted over the past 25 years, consistently have yielded impressive results in that particular area. These studies cover a variety of demographics and varied degrees of attention-related difficulties.

Researchers acknowledge that the sample sizes varied greatly among the experimental groups and some studies lacked a control group, but they also point to an overwhelmingly positive record of long-term, beneficial results.

## 2 Maximizing Results

### 2.1 General Use

If attention and/or impulsivity difficulties exist, we strongly recommend that you consult a licensed clinician for a complete diagnosis of your child's symptoms. Individuals with a history or risk of seizure or bipolar disorders should seek consultation from a physician before using The Attention Trainer.

### 2.2 Recommended Usage

We recommend **15 to 30-minute training sessions, 2 to 3 times a week** (15 minutes is more appropriate for younger children).

Performance normally varies based on the time of day. Children often focus and perform well in the mornings. After-school hours may show higher levels of daydreaming.

For best results, use The Attention Trainer at different times of the day. However, when comparing a child's progress over time, **compare performance for the same time of day** (compare performance in afternoon sessions to prior afternoon sessions; compare performance in morning sessions to prior morning sessions).

For example, a standard training regimen could consist of a 15-30 minute training session on each of two afternoons after school. A third weekly training session could be scheduled for a weekend day during morning hours. In this example, when tracking progress over time, you should compare the afternoon sessions with each other and the morning sessions with each other.

It may be easier for your child to learn to maintain better attention levels if he or she concentrates on one game at a time. We suggest starting with BreakAway Racer to learn how to use the system. In addition, we recommend sticking with one game across several sessions at a time. Once your child learns how maintaining a good attention level positively improves game play and is comfortable with the basics of the skill, he or she then can move on to a more complicated and engaging game.

Starting with simpler games and moving to more complicated ones will help your child master the attention skills necessary to perform well in more complex game settings and increase long-term interest and success. This may be especially true for younger children, children with learning disabilities, or children who are not very familiar with video games.

### 2.3 Concentration Index (CI)

We recommend administering the Concentration Index (CI), available for download from the **Attention.com** Web site, **before the first training session and after every 10 sessions** to assist in charting your child's progress.

Since time of day can be a factor in performance on this test, the CI should be taken at the same time of day each time it is administered. We recommend administering the test **in the morning hours (9am – 12 pm)** before lunch, to factor out natural fatigue that normally occurs during the afternoon.

This consistency in time of day also allows for an effective comparison of scores over time. If the child is on medication, note current medication and dosage each time the CI is taken, as this also may have an effect on test performance.

For more information, see the chapter called *Concentration Index (CI)*.

### 2.4 Setting Goals/Expectations

When attention training, patience is important! Reconditioning brainwaves to control attention levels happens very gradually. It is important to not get discouraged and to keep your child from getting discouraged.

It also is important to manage your child's expectations of when results can be seen and in what manner. Parents and teachers may start seeing results in as few as 20 sessions; however, **instruct the child to complete a full 40-50 sessions** in order for the training to really take hold.

Children may not notice much of an overall difference on their own. However, if asked specifically, they may report that:

- they are getting their homework completed
- their grades have gone up
- they can catch themselves daydreaming, or

- they are getting into less trouble.

Progress may also be inconsistent. That is, there may be highs and lows throughout the course of the 40-50 sessions. Significant improvements in performance may be followed by one or two days where the child's scores drop again.

Ups and downs can be expected, as performance can be affected by a number of factors including mood, medication, sickness, or having a bad day, etc. Improvement in performance measures is commonly seen in a stair-step pattern, rather than a solid session-to-session increase. A common performance pattern includes successive intervals and plateaus, followed by an overall increase in intervals leading to a higher plateau.

The Learning Circle is an important tool to use in monitoring these improvements over time. Comparing measurements taken at the *beginning* of the training regimen to those at the *end* can lend a clearer picture of progress than looking at the shorter gains in-between.

Utilizing The Learning Circle to upload your child's data and record significant observations, behavioral reports, and CI scores can greatly improve your understanding of your child's overall progress.

## 2.5 Reward System

An established incentive program may prove helpful in maintaining your child's interest throughout the entire training regimen. Token reward systems may greatly improve a child's motivation to continue learning, *as long as they provide short- and long-term rewards that are accessible and tangible for the child.*

For example, you could initiate a program in which your child earns a certain number of points for completing a training session. Upon earning a certain number of total points, he or she can "cash in" for a particular prize, or continue to accumulate points for a larger prize.

Remember that progress may be inconsistent and slow, and some children may feel tired after training sessions. Therefore, rewards should be attainable and frequent enough to maintain your child's interest in completing the entire 40-50 sessions.

If your child has completed more than 20 sessions and parents and teachers have not seen any improvement, it may prove effective to increase the incentives offered to your child. A "flat" overall learning curve may be the result of a lack of motivation to learn. Increasing your child's incentive to show improvements may result in a sudden jump in his or her progress.

Uploading the session data regularly to The Learning Circle is an effective way to easily manage an incentive program.

## 2.6 Expanded Learning Opportunities

There are different ways to aid in the transference of skills the child is acquiring during game play to more cognitive tasks such as schoolwork.

- First, you may consider having your child perform schoolwork immediately following completion of a training session. He or she would still be in the mode of learning ways to concentrate better and may be able to maintain better focus while completing the schoolwork.
- Alternatively, you may integrate schoolwork into the training session and monitor attention levels while your child completes the work.

An interesting protocol to maximize results and integrate cognitive tasks into use of The Attention Trainer Starter Kit may be to leverage BreakAway Racer as a monitoring tool during reading tasks. For example:

- You may have your child complete a few sessions in which he or she concentrates on mastering the ability to maintain a good attention level while watching the speed of the biker on the screen.
- You could then ask your child to read while listening to the auditory "clicks" of the BreakAway Racer game to see if he or she can keep the bike going around the track at a good speed while reading.
- A listening task could then be introduced; the child watches the screen while being read to in order to make sure he or she maintains a good attention level while listening to a story.
- The intervals of game play to reading and listening tasks could be divided between sessions or could occur within one training session.



## **2.7 Parental Oversight**

The Attention Trainer is an intuitive and user-friendly product it is likely that your child can learn to manage navigation of the tool alone. Active and continual parental involvement, however, is important to the child's success. This involvement may exist at a number of levels. It is important that the parent be there as coach and cheerleader to urge the child to complete the full training regimen.

The Learning Circle provides an easy and manageable tool that allows parents to remain active participants in their child's progress. With very little effort, parents can guide and monitor their child's training program to maximize results.

Add section:

### **Ongoing Use "Booster sessions"**

- discuss the benefits of training sessions (once a week or so after the initial 50 sessions) to keep skills in shape
- more games to come = new ways to keep skills sharp

### 3 Introduction to The Attention Trainer™



The Attention Trainer uses video games, enhanced with feedback technology, to help children teach themselves to improve their attention skills.

The system uses a gaming headset and specially designed software to monitor your child's level of attention while he or she plays the games. The software allows the games to provide immediate feedback about your child's attention levels. Based on the levels of attention, the software makes decisions that encourage greater levels of attention.

The data generated from playing the game applications can be stored and uploaded to The Attention Trainer™ Web site, Attention.com.

Designed for school-age children, The Attention Trainer uses a consumer-oriented version of the technique that:

- NASA has used to train pilots
- Olympic athletes have used to improve performance, and
- clinicians have used to teach attention skills.

#### 3.1 How the Games Teach

(Awaiting copy from Jim)

#### 3.2 How Does The Attention Trainer Work?

The Attention Trainer™ system is an interactive tool for the home computer that can help your child learn. While playing specially adapted games, your child wears a gaming headset.

- Three sensors inside the ThoughtCaster headset measure brainwaves.
- The sensors transmit the brainwaves to a small PC board in the front of the headset.
- This board digitizes the data and transmits it wirelessly to the base station.

- The base station communicates to your home computer through the serial port.
- Special East3 software translates the data.
- This software allows the games to provide your child immediate feedback about his or her attention levels.

The video games keep the child interested while he or she learns to master the attention skill. For example, in a racecar game, as your child's attention levels go up and down, the car's steering and braking are affected and move from more to less responsive.

The BreakAway Racer game lends itself to a "bicycle with training wheels" analogy. Put the training wheels on and let the child try it. After gaining confidence, he or she takes off the training wheels. This game is *training wheels for the mind*. The child can play the game and get feedback immediately.

The **ThoughtCaster Software** - which the player actively accesses - provides an interface that allows the player to access East3 Enhanced applications.

The **ThoughtCaster Software Interface (TSI)** software - which runs in the background and is transparent to the player - provides a feedback loop between the player and the applications.

The Learning Circle is a secure Web site that provides tools that allow you to monitor, assess, and guide your child's progress in learning to control his or her level of attention. After each training session you can send scores to the site. You can follow your child's progress by periodically requesting reports from the Web site.

#### 3.3 What's Required to Use The Attention Trainer?

Minimum system requirements for The Attention Trainer™ System are:

- Microsoft Windows 95 or 98 operating system
- 233 MHz Pentium II processor (or equivalent)
- 32 MB RAM
- Standard video card
- CD drive for installing the software

Base station connection requires a serial port. Future enhancements of the base station include USB support.

An Internet connection is recommended. Although the Internet is not required during a training session, it is used to upload training data and to view training related reports online. A high-speed connection is not a necessity; a 28.8 modem is sufficient.

## 4 The Attention Trainer™ Starter Kit

The kit includes everything you need to get started, including:

- Headset and base station
- Three East3 Enhanced™ games
- Training Guide
- Personal Training Account™
- Batteries and extra sensors
- One-year limited warranty
- 30-day money-back guarantee
- and extra incentives to keep your child training!

After you receive and unpack The Attention Trainer Starter Kit, be sure to read the Installation Guide that is included.

### 4.1 Hardware

The ThoughtCaster™ is a wireless headset and base station. The headset features the East3 proprietary sensor and monitoring technology. The three built-in sensors monitor EEG signals (brainwaves) and transmit the information to the base station.

#### 4.1.1 Base Station

The compact base station can easily sit next to, or on top of, your computer. It receives the signals from the headset, filters the signals, and transmits useful measures of attentiveness to the special software installed on your home computer.

#### Detailed Illustrations

Editing Note: Instructions/illustrations included here on how to plug cable into serial port (same stuff for Quick Start Guide).



#### 4.1.2 Headset

The wireless headset weighs less than a pound and can be worn comfortably by children ages 7 to 14.

The built-in sensors monitor EEG signals (brainwaves) and transmit the information to the base station, allowing the computer to respond to the user's state of mind.

If multiple users wear the headset, you should replace the sensors more frequently due to increased usage.

#### Detailed Illustrations



#### 4.1.2.1 Connecting the Sensors

The three small sensors are attached to the inside of the headset. This design offers greater comfort and increased mobility for the wearer and reduces waste.

Only one bristle on each sensor must make contact with the scalp. The sensors should be replaced after 30 hours of use. The system prompts you when it is time to replace them.

Editing Note: Instructions/illustrations included here on how to connect the sensors to the headset.

#### Detailed Illustrations



#### 4.1.2.2 Installing the Battery

One "AA" alkaline battery is included in your starter kit for use in the headset.

Editing Note: Instructions/illustrations included here on how to install the battery in the headset.

## 4.2 Conditions of use - ThoughtCaster™

To acquire and maintain continued success with the ThoughtCaster system please read and follow all instructions prior to use. Failure to do so may result in below-average results.

- When game play is complete, return the headset to the base station. If not correctly seated, it sounds an alarm to alert the user to reposition it.
- The headset and base station are not toys and care should be taken when handling them to ensure system productivity.
- The headset is intended for use with the East3 ThoughtCaster system and should be worn only during system game play.
- Any liquid spills to the headset or base station should be wiped clean to ensure proper equipment function.
- The system will not function properly if used with wet hair. Hair must be dry.
- The ThoughtCaster system headset is uniquely designed and intended for use in conjunction with the system base station. Forced entry into either the base station or headset may result in complete system failure.

## 4.3 Software

After you connect the base station to the PC's serial port you are ready to install the software.

The following software is included on The Attention Trainer Starter Kit CD:

- ThoughtCaster Software
- ThoughtCaster Software Interface (TSI)
- BreakAway Racer game

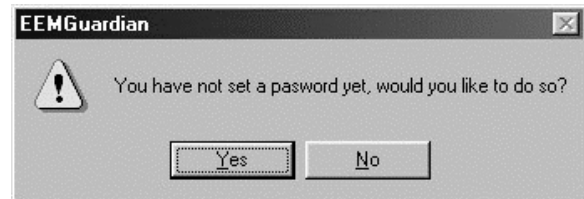
In addition to East 3's Breakaway Racer game, there are two additional games included in your package:

Each of these East3 Enhanced games has its own routine to aid you in installing it onto your

computer. Proprietary sensor technologies coupled with 'off-the-shelf' systems provide a useful learning and entertainment experience for players.

### 4.3.1 Installing the Software

1. Insert the installation disk into your computer. Follow the instructions on the installation program.
2. Answer **yes** when asked if you would like to set up the Personal Training Account provided with the system.
3. When prompted, enter the **key** provided for the Personal Training Account, and provide a player **nickname** for the account.
4. A message displays, asking if you want to set up a password.



If you choose yes:

The **Set Password** screen displays.



- Type a password.
- Retype it to confirm (if confirmation password doesn't match, an error message displays).
- Press **OK**.  
You are prompted to enter this password each time you launch the Guardian portion of the ThoughtCaster Software.

**Note:** The ThoughtCaster Software provides an interface that allows the player to access all software applications packaged with The Attention Trainer. Additionally, the

ThoughtCaster Software provides an administrative section - called **Guardian** - that allows creation, deletion, and customization of all user accounts.

*If you choose no:*

5. Check the box that says **Launch Guardian**.
6. Two icons are placed on the PC's desktop:
  - Guardian (which the account administrator will use)
  - The Attention Trainer™ (to be used by the account holder you just set up)
7. After successful installation, a message displays asking if you would like to register this program at the Web site.

*If you have Web Access:*

- Answer **yes**.
- The installation program launches a link to the software registration portion of the **Attention.com** Web site.
- Fill out the required information at the Web site.

*If you do not have Web Access:*

- Answer **no**.
- The installation program ends.

## 5 ThoughtCaster™ Software

When you install The Attention Trainer™ CD on your computer, the following programs are placed on your hard drive:

- ThoughtCaster Software
- ThoughtCaster Software Interface (TSI)
- BreakAway Racer game

All applications packaged with The Attention Trainer are controlled by the East3 ThoughtCaster Software Interface.

### 5.1 Sensor information

The ThoughtCaster Software provides the following sensor information to the player and account administrator:

- Sensor strength
- Warning (during calibration) when sensor life is close to expiration; data continues to be collected.
- Warning (during calibration) when sensors have expired; player sees a warning message that no data can be collected.
- Resets the sensor life counter when new sensors are installed.

**Note:** The calibration process verifies proper hardware operation and player setup. When a player attempts to launch a game, a check is made to see:

- if the headset is being worn correctly,
- if the sensors are making good contact, and
- if good data is being transmitted.

To complete this check the game passes control to the ThoughtCaster Software calibration routine.

### 5.2 System Software Upgrades

The account administrator is notified of system upgrades via e-mail. Selecting the upgrade utility:

- launches the browser directly to the East3 Web site
- grabs the file to download
- updates the software on your computer. The account administrator is kept informed at each step in this process via status messages.

### 5.3 Managing Accounts

There are three types of accounts associated with The ThoughtCaster Software Interface –

**Account Administrator (Guardian), Player, and Guest.**

#### 5.3.1 Account Administrator (Guardian)

The master account (**account administrator**) is created during initial ThoughtCaster Software installation. This account - which may be password protected - controls setup and configuration of all other accounts .

The account administrator has the following responsibilities:

- chooses which installed games appear on each player's desktop
- sets up each account's attributes
- creates account passwords (optional)
- adds Personal Training Account (PTA)™ attributes to user accounts
- deletes Personal Training Account (PTA) attributes from user accounts
- adds games to the ThoughtCaster desktop
- deletes games from the ThoughtCaster desktop
- initiates data uploads to the **Attention.com** Web site

**Note:** While the ThoughtCaster Software is running, you may access the administrative area (Guardian) by pressing **Ctrl+Shift+G** at any time. When you exit the administrative area, you are returned to The Attention Trainer Login screen.

#### 5.3.2 Player accounts

The ThoughtCaster Software allows the account administrator to create a “desktop” (account) for each player.

A player launches The Attention Trainer™ by double-clicking The Attention Trainer icon on the desktop. He or she then selects his own icon from the opening screen and logs in.

One player account must be associated with a **Personal Training Account (PTA)** in order to utilize The Attention Trainer system fully. Data from tests and games are stored and uploaded *only* for a player account associated with a PTA.

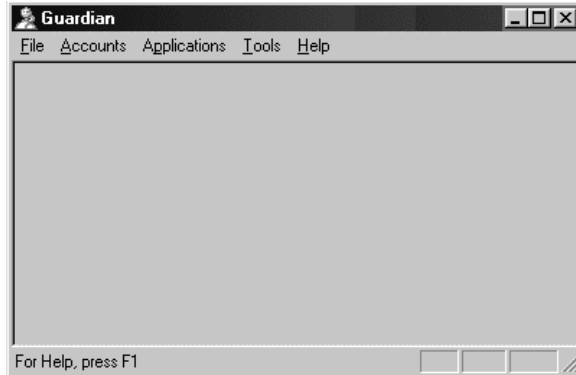
##### 5.3.2.1 Create Account

The account administrator sets up new player accounts; each new player is added to the player roster.

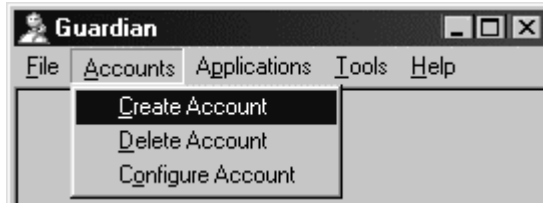
These new accounts can be created during initial installation or at any time from the installed ThoughtCaster Software following the steps below.

**Note:** If you are setting up the accounts during initial installation, the first step is not necessary.

1. Double-click the **Guardian** icon and type your **password** if prompted to do so. The **Guardian main** screen displays.



2. Select **Create Account** from the **Accounts** dropdown menu.



The **Name, PTA ID, and Password** screen displays.

3. Type the **Account Name**.
- If the account has a PTA ID:*
4. Click the checkbox '**Does this account have a PTA ID?**'
5. Type the **PTA ID** in the white boxes that display.

- If the account is password protected:*
6. Click the checkbox '**Is this account password protected?**'
7. Type the **password** in the white box that displays.
8. Click the **Next** button.

The **Set Permissions** screen displays.

**Note:** password protection is recommended to protect your child's data and prevent errors.



9. Add or remove any permissions on the left by checking or unchecking the boxes as desired.  
**Note:** if you uncheck an option on this screen, only the account administrator may perform that function for this account.
10. On the right, highlight *all* applications this account has permission to run.
11. Click the **Next >** button when you are finished.

**Note:** You can click the **< Back** button to return to the previous screen or click the **Cancel** button to cancel the account creation.

The **Choose Icon** screen displays.



If you want to change the icon for this account, browse through the choices using the << and >> buttons to select an icon.

**Note:** You can click the **< Back** button at any time to return to the previous screen or click the **Cancel** button to cancel the account creation.

12. Click the **Finish** button when you are finished. This message displays.

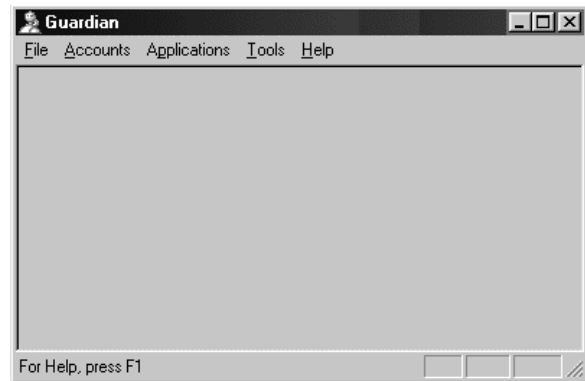


13. Click **OK**.

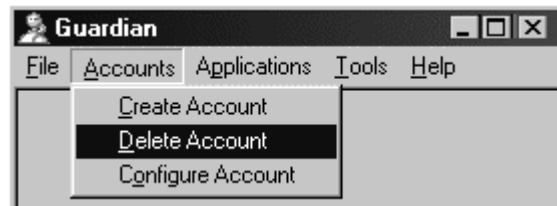
### 5.3.2.2 Delete an Existing Account

1. Double-click the **Guardian** icon and type your **password** if prompted to do so.

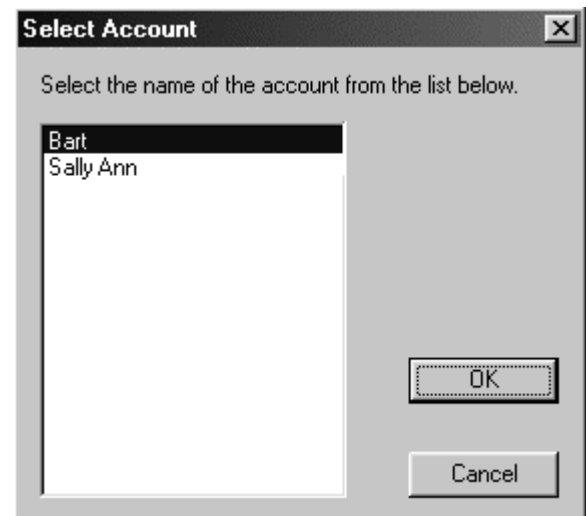
The **Guardian main** screen displays.



2. Select **Delete Account** from the **Accounts** dropdown menu.



The **Select Account** screen displays.



3. Highlight the **Account Name** you want to delete.
4. Click **OK**.  
A **Confirm Delete?** message displays.

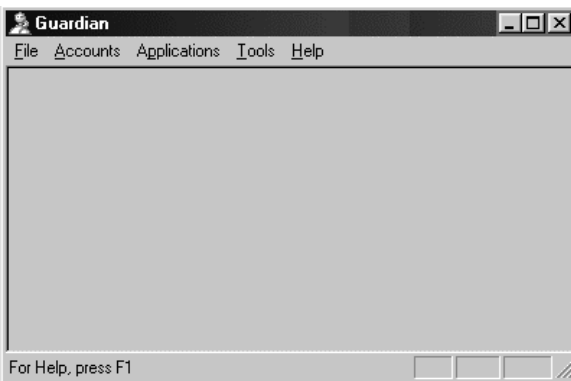


5. Click **Yes** to confirm that you want to delete this account. The selected account is deleted from the system. Otherwise, click **No**.

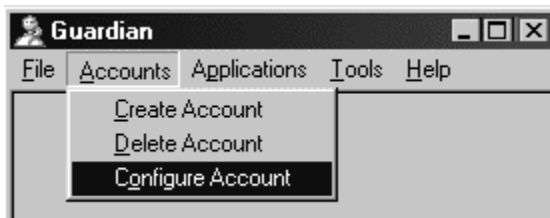
**Note:** If the player account was associated with a Personal Training Account™, additional warning messages display. In addition, you have the option to launch the **Attention.com** Web site so you can remove the PTA online.

### 5.3.2.3 Configure Account

1. Double-click the **Guardian** icon and type your **password** if prompted to do so. The **Guardian main** screen displays.



2. Select **Configure Account** from the **Accounts** dropdown menu.



The **Select Account** screen displays.



3. Select the Account Name you want to configure.
4. Click **OK**.

The **Name, PTA ID, and Password** screen displays the current information for the account you selected.



*If the account has a Personal Training Account ID:*

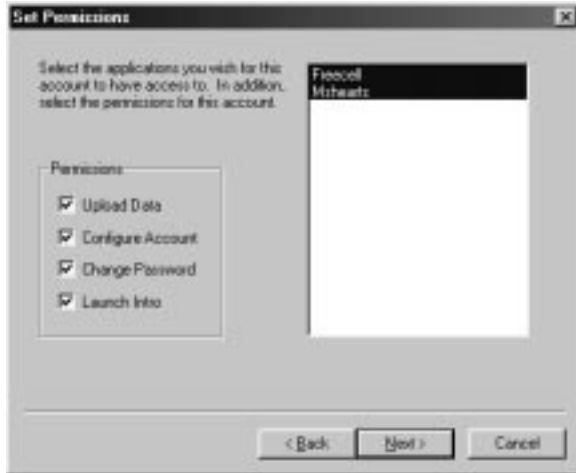
5. Click the first checkbox
6. Type the **PTA ID** in the white box that displays below.

*If the account is password protected:*

7. Click the second checkbox.
8. Type the **password** in the white box that displays below.
9. Click the **Next >** button.

**Note:** You can click the **< Back** button to return to the previous screen or click the **Cancel** button to cancel the configuration.

The **Set Permissions** screen displays.



10. Add or remove any of the permissions on the left by checking or unchecking the boxes as desired.
11. On the right, highlight the names of *all* applications that you want this account to run. (If an application is highlighted and you want to remove it from this account, select the name so it is no longer highlighted.)
12. Click the **Next >** button when you are finished.

**Note:** You can click the **< Back** button to return to the previous screen or click the **Cancel** button to cancel the configuration.

The **Choose Icon** screen displays.



13. If you want to change the icon for this account, browse through the choices using the **<<** and **>>** buttons until you find the icon you want.
14. Click the **Finish** button when you are finished.

**Note:** You can click the **< Back** button to return to the previous screen or click the **Cancel** button to cancel the configuration.

### 5.3.3 Guest Accounts

The ThoughtCaster Software creates a **Guest** account during The Attention Trainer installation process. The guest user may play any of the games. However, since this guest account has no Personal Training Account™, no monitoring data is collected, saved, or transmitted to the Internet.

The **Guest** account can be used initially for a quick “out-of-the-box” experience to try out the system. Casual users can also use it. The guest user must baseline each time the account is used.

### 5.4 Managing Applications

Each East3 Enhanced game has an installation routine that installs the game onto your computer. The account administrator can manage these applications as follows:

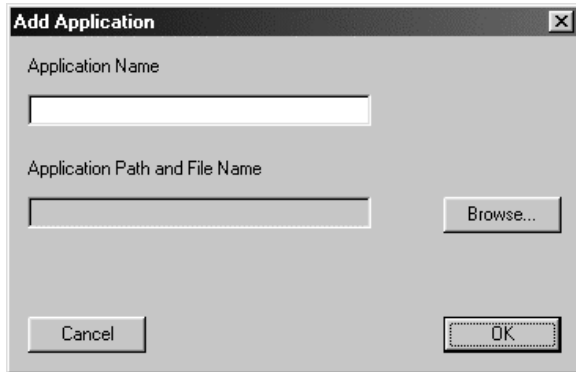
- **add applications** – This action adds a game to the ThoughtCaster Software’s application registry. Only games listed in this registry can be placed on a player’s desktop.
- **delete applications** – This action removes games from the application registry. Any performance data currently stored on the system that was derived from the deleted game remains intact.

### 5.4.1 Add an Application

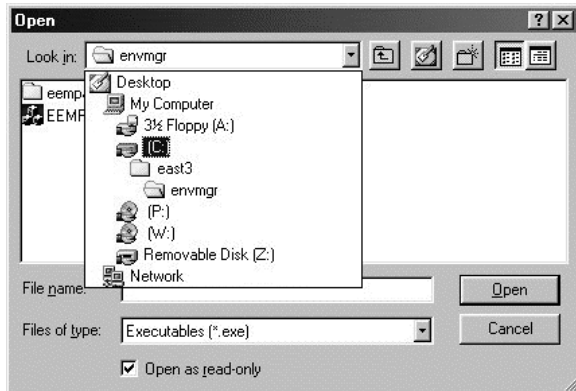
1. Select **Add Application** from the Applications dropdown menu.



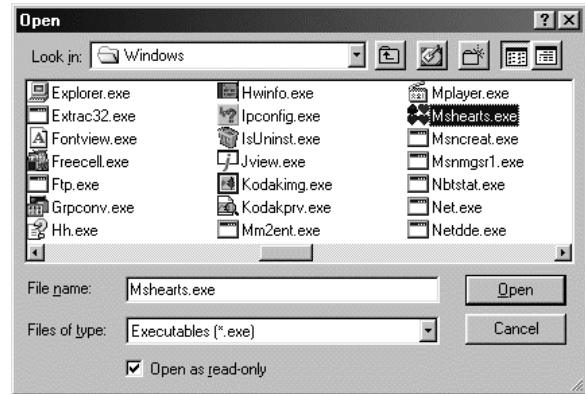
The **Add Application** screen displays.



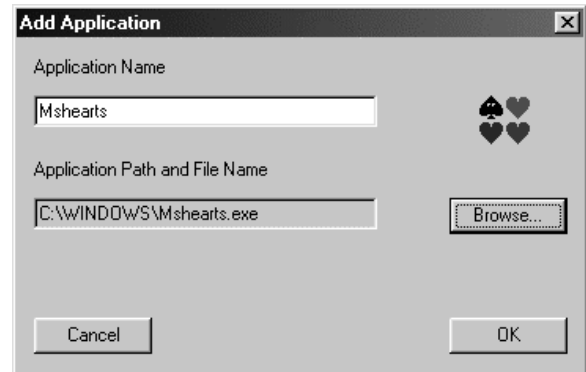
2. If you know the exact path of the application, type it in the Application Name box. Or, click the **Browse** button. The **Open** screen displays.



3. Click the **downward arrow** beside the **Look in:** field.
4. Select the letter of the drive where the application is located (this is the C: drive on most computers).
5. Scroll through the directories and file names on the drive until you find the application you want to add.
6. Highlight the file name; the name displays in the **File name:** box at the bottom of the window.



7. Click the **Open** button. The **Add Application** screen displays. The Application Name and icon are filled in.

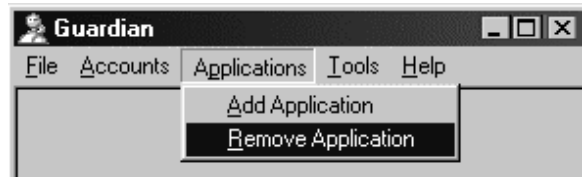


8. If you want to continue adding the application, click **OK**. (**Note:** If you decide not to proceed at this time, click the **Cancel** button.) The application you selected has now been added to the roster.

### 5.4.2 Remove an Application

This action removes games from the application registry. Any performance data currently stored on the system that was derived from the deleted game remains intact.

1. Select **Remove Application** from the Applications dropdown menu.

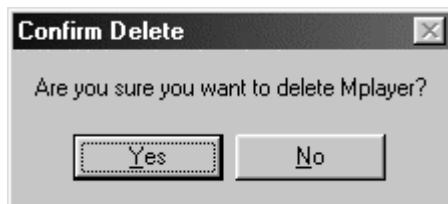


The **Select Application** screen displays.

- Highlight the name of the application you want to remove.



- Press **OK**. (**Note:** If you decide not to proceed at this time, click the **Cancel** button.)  
A confirm delete message displays.



- Press **Yes**. The application is deleted.

## 5.5 Tools

The Tools menu allows the account administrator to change the Guardian password or upload session information to The Learning Circle Web site.

### 5.5.1 Upload Session Information to the Web

#### Background

The ThoughtCaster Software controls all data upload functionality. Data upload can be configured to run with or without a password as set in the account administrator's profile.

The ThoughtCaster Software provides local storage of all session data for all players who have a valid Personal Training Account™. This

storage safeguards the data until it is uploaded to The Attention Trainer Web site.

The data storage area is limited in size. When it is full the system displays a message that you've reached maximum capacity of data to be stored locally. No more data will be stored locally until existing data is uploaded.

#### *If there is data to upload:*

When you launch the Guardian portion of the ThoughtCaster Software, a message box reminds you that there is data to be uploaded.

- If you click **Yes**, the ThoughtCaster Software uploads the data to the Web site.
- If you click **No**, the ThoughtCaster Software continues to remind you - each time you launch Guardian - until you upload the data.

#### *If the data upload is successful:*

The storage area is cleaned out.

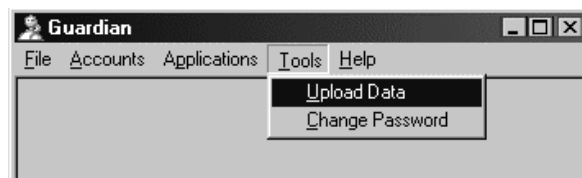
#### *If the data upload is **not** successful:*

The ThoughtCaster Software notifies you and suggests approaches to correct the problem. Data upload problems may occur for these reasons:

- Child attempts to upload data before the Account administrator logs into **Attention.com**
- Communication errors (phone line, modem problems, ISP problems).
- Personal Training Account (PTA) was set up at the local level but not at the **Attention.com** Learning Circle Web site. The data is stored in a temporary holding area locally.
- An incorrect PTA ID was entered.

#### To upload data:

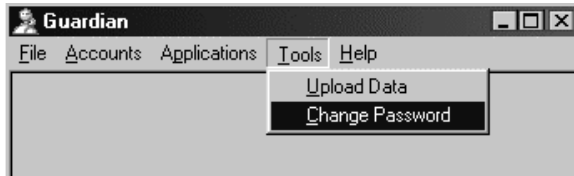
- Select **Upload Data** from the Tools dropdown menu.



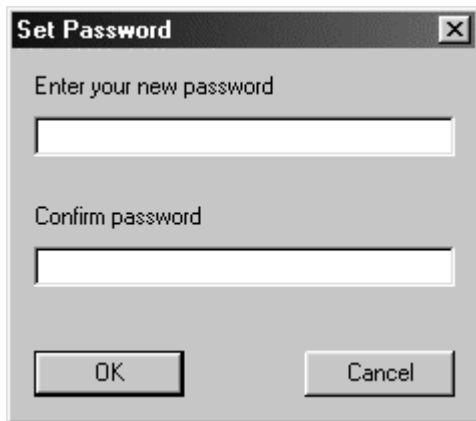
- Any stored session data is uploaded to the appropriate Learning Circle account at the **Attention.com** Web site.

### 5.5.2 Change Guardian Password

1. Select **Change Password** from the Tools dropdown menu.



The Set Password screen displays.

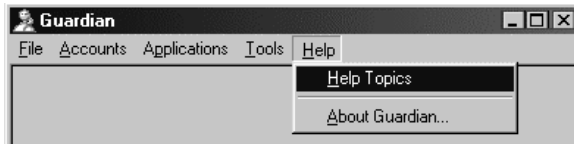


2. Type your new password.
3. Type it again to confirm.
4. Press **OK**.  
The Guardian password is now changed.

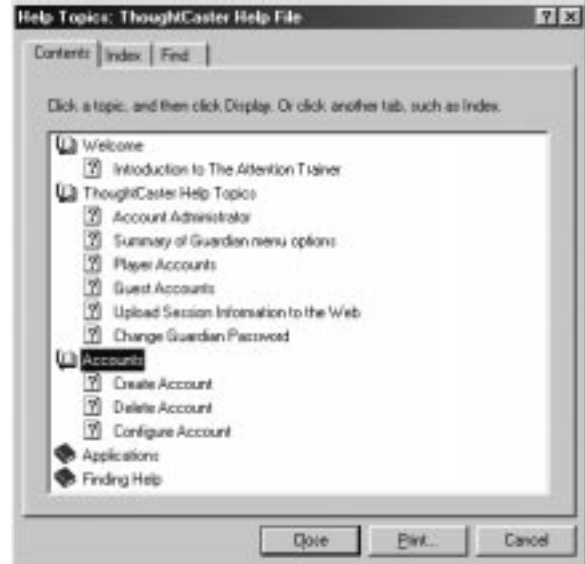
## 5.6 Help

### 5.6.1 List Help Topics

Select **Help Topics** from the **Help** dropdown menu.



The Guardian help file displays.

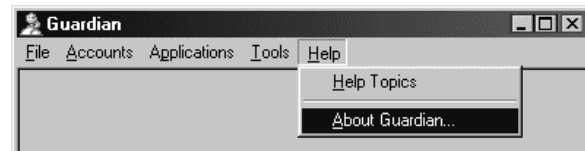


You can navigate through the Help file by:

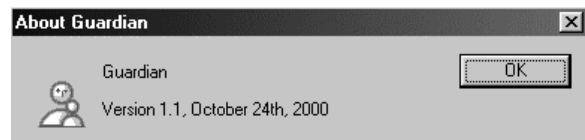
- selecting topics from the Contents tab by double-clicking on a topic title
- moving backward and forward through all file topics by selecting the << or >> buttons at the top of each topic
- selecting the Index tab to quickly look up keywords

### 5.6.2 Display Guardian Information

1. Select **About Guardian** from the Help dropdown menu.



A message box displays Guardian version and copyright information. It also displays base station version, headset version, TSI version and sensor life.



2. Click **OK** to close the box.

## 6 How to use The Attention Trainer™

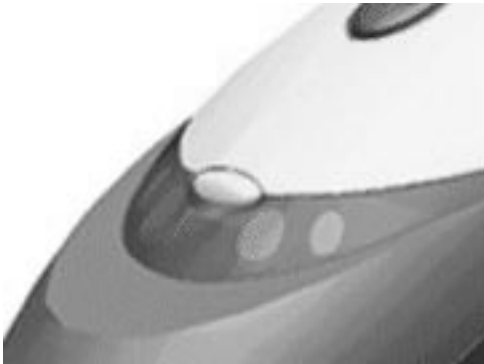
### Summary of steps

- player logs in to the East3 system.
- player puts headset on
- player selects game and launches it
- player calibrates the headset
- player completes baseline exercise
- game starts
- player logs out or removes headset
- session ends



### 6.1 Preventive Maintenance

#### 6.1.1 Battery



One "AA" battery powers the ThoughtCaster. There are four lights on the base station that display various indicators. These include (facing the LED's, looking from left to right):

- **LED 1 - Power Indicator** - GREEN when on
- **LED 2 - Battery Indicator** - glows ORANGE if new battery is needed.
- **LED 3 - Time to Change Sensors** - glows RED if the sensors have expired.
- **LED 4 - Reception** - GREEN indicates EEG signal, YELLOW indicates Impedance signal, blank if no signal being received.

#### 6.1.2 How to Place Headset on Base Station

(Awaiting copy from John)

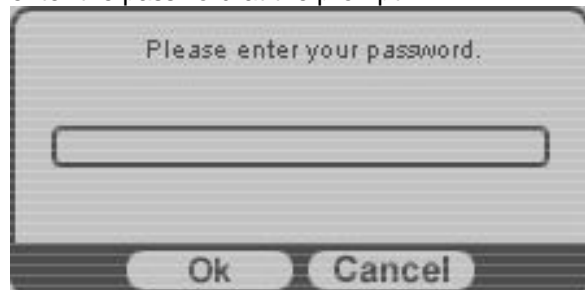
### 6.2 Player Login

#### To log in:

1. Double-click The Attention Trainer™ icon on your desktop.  
The opening application screen displays.



2. Click your personal icon on the opening screen.  
*If a password has been set for your account, enter the password at the prompt.*



3. Your personal desktop displays.



4. If your account has permission, you can click one of the small round icons on the left. When you select an icon, a larger version of the icon displays in the center circle and a brief explanation of the icon's purpose displays above the center circle.

The icons include:

(MARGO – is there some way we can show image capture with an icon pointer on image being referred to? We think it would help the user understand how you got to where you did.)

- **Play Intro** (a movie plays that shows you how to correctly put on the headset.)



- **Customize Account** (allows you to change the icon assigned to your account)



- **Upload Data** (upload session data to The Learning Circle)



- **Change Password** (change the login password assigned to your account)



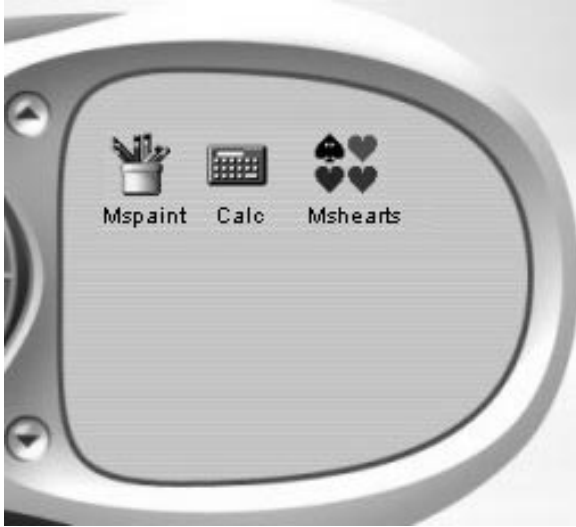
- **Logout** (close your personal desktop and return to the ThoughtCaster Software opening screen)



See *ThoughtCaster Software- Managing Accounts* for more information on these options.

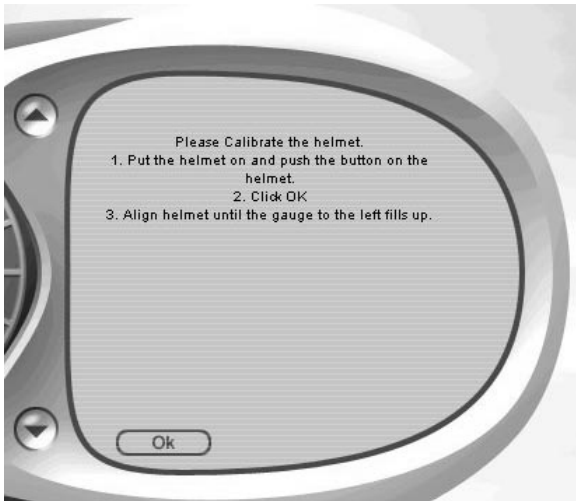
5. Select the application you wish to run by double-clicking its icon on the right side of the screen.





(Above image needs updating, through Tony)

6. A message displays brief instructions on how to calibrate the headset.



(Above image needs updating, through Tony)

See *Steps to Follow for Calibration* later in this section.

### 6.3 Fitting the ThoughtCaster™ headset

Remove the headset from the base station and place it on your head. Please follow all of the instructions listed below to correctly fit your headset and assure its proper function.

Your headset comes with:

- three labeled forehead pads
- two inner comfort pads

- three large round sensors

The three pads (labeled **A**, **B**, and **C**), are used to obtain the correct fit of your headset. They also provide added comfort.

To determine the correct headset fit, measure your head following the directions below.

#### 6.3.1 Fitting the Forehead Pad

The measuring tape that comes with your headset is used to determine correct headset placement on your child's head.

The measuring tape has a blue marking at the front end of the tape and the letters **A**, **B**, and **C**, on the back end of the tape.

(insert picture)

1. Place the measuring tape edge (colored blue) at that point where the bridge of the nose meets the forehead.
2. Lay the tape, from this point, across the forehead and over the top of the head until the tape measure reaches the knobby projection on the back of your child's head.

(insert picture)

**Note:** The A, B, or C zone marking on the tape should lay directly over the knobby projection. The letter corresponds to the pad that should be tried first for a proper fit.

3. Attach the correct pad to the Velcro strip that runs along the forehead area inside the headset.

#### 6.3.2 Fitting the Inner Comfort Pads

The inner pads are used for added comfort when the wearer has thin or no hair. Persons with thick or coarse hair should not use the inner pads as they may prohibit the sensors from making good contact with the scalp.

If you are not sure which category you fit in then try using the inner pads. Both pads must be used for the headset to sit correctly on the head.

4. Attach the pads to the Velcro strips that run along either side of the sensors.

**Note:** If calibration is not possible with the pads in place or takes more than five minutes then remove the pads and try again.

- Once the forehead pad and inner pads (if needed) are attached, proceed to the next step to ready your headset for use.

### 6.3.3 Attaching the Sensors

The three large round sensors are used to make the connection between your scalp and the headset.

- Unwrap your sensors and snap each one into a sensor mount.

**Note:** The sensor mounts are in the inside upper area of your headset. The sensors are identical and each works in any position.

(insert picture)

### 6.3.4 Correct Headset Placement

- Place your ThoughtCaster™ headset on your head from front to back.
- Align the forehead pad midway between your eyebrows and hairline and pull the headset on.
- Leave the back strap somewhat loose during the initial placement. This strap can be tightened during the calibration process.

(insert picture)

**Each new user needs to fit the headset following the steps outlined above.**

### 6.3.5 Sensor Size Legend

All measurements are based on averages for children aged 7 - 14.

<33cm	=	#3 or A
33cm – 34.9cm	=	#2 or B
>34.9cm	=	#1 or C

### 6.3.6 Conditions of Use - Sensors

- Repeated sensor removal from the headset is not advised once the sensors have been snapped into place. To do so could result in sensor malfunction.
- The sensors will **not** work properly if they come into contact with wet hair. Hair must be dry.
- Sensors should be stored attached to the headset and seated on the base station. If sensors are not seated properly they may dry out prematurely. If this happens new sensors must be installed.
- Sensors should be kept clean to maintain proper function. Users should have dry, clean hair before each use. This adds to the longevity of the sensors.

- Once sensors have been removed from their package they should be stored attached to the headset and positioned properly on the base station. Failure to do this may result in sensors drying out prematurely.
- For hygienic reasons, do not share sensors among multiple users. In the unlikely event that a user has a contagious condition it could be transferred to anyone using the same sensors. Multiple users of one headset could present the same problems.
- Sensors for the ThoughtCaster™ are small and should be kept out of reach of young children to prevent accidental ingestion.
- Keep the sensor tips clean. If they become clogged they will not function properly. In the event that this occurs remove the sensors and insert fresh ones.
- Each sensor contains three wicks that extend beyond the sensor tip. If any of the wicks become dislodged, replace sensor to ensure proper system functioning.
- If sensors are damaged due to incorrect use they should be replaced to ensure proper system function.

### 6.3.7 Hair Tips

**For best contact with sensors:**

- Hair should be dry - never wet or greasy.
- Put long hair in a ponytail; long, straight hair can affect sensor placement.
- Part hair in the middle, if possible.
- Remove barrettes, bands, or other objects from your hair.

### 6.3.8 Other Important Hints

- Use proper posture - avoid slumping over.
- Sit as still as possible - it is critical that the three sensors make contact with the scalp and don't move during the session.

## 6.4 Calibration

The calibration process verifies proper operation of the hardware along with proper setup of the player.

When a player attempts to launch a game, a check is made to see if (a) the headset is on and (b) the sensors are making good contact. If both of these conditions are not met, the game passes control to the ThoughtCaster Software calibration routine.

The ThoughtCaster Software verifies whether the headset is being worn correctly and transmitting good data.

The ThoughtCaster Software also verifies that the base station is communicating with the PC.

#### 6.4.1 Steps to Follow for Calibration

1. Complete the login and headset fitting as described in the *Player Login* section.
2. Push the button on the front of the headset.
3. Click the **OK** button on the screen. The screen displays a message that calibration is being performed.



(Above image needs updating, through Tony)

4. The LED on the headset blinks once and the base station chirps once.
5. As you adjust the headset, watch the calibration gauge change colors.
6. When calibration is finished the color gauge turns completely green and the word **Calibrated** displays above the gauge.



(Above image needs updating, through Tony)

**Note:** Use the gauge level to help you see how close you are to good placement of the headset.

- the *right* side of the gauge indicates contact with the *front* sensor
- the *left* side of the gauge indicates contact with the *back* sensor

#### 6.5 Baseline

In order to report and respond to improvement of the player over the duration of an application, a baseline measure is calculated and saved for each player and each application session.

The baseline values are obtained during a startup period as the player relaxes. Then, as the player concentrates during game play, statistical samples are compared to the baseline measures.

Each baseline is unique for a given player and reflects changes in the environment, sensor condition, or mindset of the player.

ThoughtCaster Software Interface (TSI) values are calculated in a range considered normal for each individual player. If the player's ability to concentrate improves with time, the system retains the improved calculations.

The brainwave information interpreted by the TSI include:

- beta waves (focused)
- theta waves (daydreaming/distracted/drowsy)
- alpha waves (relaxed, but alert)
- Sensori-motor Rhythm (SMR) index (fidgety/tense).

#### 6.5.1 Steps to Follow for Baseline

1. Complete calibration following the steps described in the previous section.
2. Push the button on the front of the headset.
3. Click **OK**.
4. This launches a 'tile-matcher' memory game that you play during baselining.



5. As you play the memory game the system records your baseline. This takes between 1 - 3 minutes.
6. A message displays saying baselining is complete, and the **OK** button on the screen becomes active.



7. Click **OK** when you are ready to start the game you selected earlier in the **Player Login** section.
8. The ThoughtCaster Software screen minimizes and the application you selected launches.

You do not have to launch the game immediately - you may continue playing the memory game as long as you like.

**Note:** You may play multiple games in a single session. However, **if you remove the headset**

**between games you must calibrate and baseline again before starting the next game.**

## 6.6 Launching a Game

East3 Enhanced games are launched from within the ThoughtCaster Software. During game play, the ThoughtCaster Interface remains in the background.

Note that you can play external games without the headset if you launch them outside the ThoughtCaster Interface. But if you launch a program from within ThoughtCaster, you must wear the headset.

### 6.6.1 BreakAway Racer:

The BreakAway Racer game lends itself to a "bicycle with training wheels" analogy. Put the training wheels on and let the child try it. After gaining confidence, he or she takes off the training wheels. This game is *training wheels for the mind*. The child can play the game and get feedback immediately.

Use BreakAway Racer as a warmup to other, more complex games.

#### 6.6.1.1 Objective

Your goal is to make the bike go as fast as you can. Keep the bike going at a good pace. The faster you go, the more points you get.

Stay relaxed and concentrate on making the bike go faster. Once you gain your confidence, move your way up through the racing levels – from Challenging to Qualifier to Olympic.

#### 6.6.1.2 Controls

Use the left mouse button to click on any of these buttons on the *BreakAway Racer* screen.

<b>Continue</b>	Click once to display the Options screen.
<b>Mode</b>	Click once to toggle between <i>Practice</i> and <i>Race</i> mode.
<b>Race Level</b>	Novice, Professional, Olympic
<b>Sound</b>	Click once to toggle between turning sound (crowd noise, coach's voice) <i>on</i> or <i>off</i> .
<b>Coach</b>	Click once to toggle between turning the coach <i>on</i> or <i>off</i> during game play.
<b>Instructions</b>	Click once to display brief instructions on how to play.

<b>Play</b>	Click once to move to the starting line on the track.
<b>Start</b>	Click once to start the race from the beginning.
<b>Stop</b>	Click once to pause game play and reset all counters (time, laps, points) to zero. The race or practice will restart if you click the Start button again.

Your headgear has sensors that read your brainwaves to keep track of how focused and relaxed you are. The speed of the bike is controlled by your brainwaves.

To play the game, no controls are necessary except for the headset and your mind. Your speed around the track is completely controlled by how well you concentrate. No joystick, no gears to shift - just focus and go!

**6.6.1.3 Scoring**

Points are awarded as you maintain certain speeds for certain amounts of time by concentrating and staying relaxed. The better you maintain a good speed, the more points you get.

Bonus points are awarded for successfully grabbing a water bottle or a candy bar. You have to concentrate extra hard to get these!

**6.6.1.4 Your Coach**

Your coach is an ex-Olympic athlete who knows how important concentration is when it comes to racing. Your coach is keeping an eye on how you're doing the whole time and can tell when you're getting distracted or not staying relaxed. Every now and then, he'll cheer you on and give you advice to help you focus and relax. He always has good advice for you, so pay attention and follow it.

**6.6.1.5 Practice Mode**

The practice track lets you train for the big bike race. It's just you on the track, with your coach and the crowd cheering you on. Use the practice track to catch on to how the whole thing works. You can learn how to control the bike without worrying about any other racers distracting you.

Find your zone! Find out what it feels like to relax and concentrate enough to make the bike go faster. It's up to you to figure out what works

for you. Relax, concentrate, and discover your own zone.

**6.6.1.6 Race Mode**

Now you're ready for the big race. It's just you and one other racer. Your goal is to beat the other racer to the finish line. So stay relaxed and keep concentrating to keep up a good speed around the track.

You can challenge yourself by choosing what racing class the other racer is in: Novice (Easy), Professional (Moderate), or Olympic (Difficult). Then, pace yourself against the speed of your opponent. It may be best to start out easy and work your way up to Olympic levels. The higher the level, the tougher it is to win.

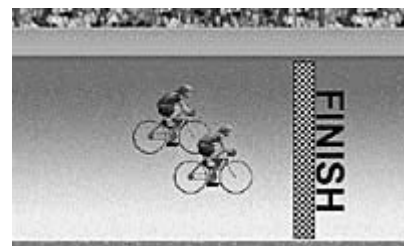
**6.6.1.7 Tips From Your Coach**

It's important to not talk, eat, chew gum, or move around too much while you're racing. The bike will slow down if you're doing things like this. You need to stay relaxed. If you tense up, you'll slow down. Keep your face and neck muscles relaxed. This helps you out a lot. Stay loose!

The more focused and relaxed you are, the faster the bike goes.

It's very important to sit up straight, and stay very quiet and still so you can concentrate better and go faster.

**6.6.1.8 to play Breakaway Racer**



1. Double-click the Breakaway Racer icon on your desktop.
2. A menu displays. Choose from the game options (controls) described earlier in this section.
3. The BreakAway Racer game launches, showing a rider sitting astride a bicycle.
4. In the **Laps** box, type the number of laps you'd like to ride.

5. Press **Go**. The bicycle starts to move. The screen displays your speed (MPH) as you ride.

**Note:** If you selected the **race** option:

- A second rider comes up behind you. Your goal is to reach the finish line before he does by focusing your attention on the race.
  - As you achieve certain levels of concentration, you receive bonus points.
6. The game is over when a rider crosses the finish line. The screen displays your total laps and elapsed time
  7. Click **Exit** to return to your personal desktop screen.
  8. Click **Quit** to return to the ThoughtCaster opening screen.

### **6.7 Player Logout**

A player can log out from his or her desktop at any time by pressing the Logout icon on the screen.



Logging out signals the end of the session.

### **6.8 End of Session**

At the end of each session, you may upload session data to your Learning Circle at the **Attention.com** Web site. If data is not uploaded, it is saved locally. The account administrator is reminded at next startup to upload saved data.

See *Tools. Upload Session Information to the Web* for more information.



## 7 The Personal Training Account (PTA)™

When you install The Attention Trainer you are prompted to register at the **Attention.com** Web site and set up your Personal Training Account at the same time.

However, if you do not register during installation you can register at the Web site at any time by following these steps:

1. Log on to the Internet.
2. Go to <http://www.Attention.com>
3. Create a new Learning Circle by following the online instructions.
4. Enter a Personal Training Account ID.

A Personal Training Account ID (PTA ID) represents only one Personal Training Account (that is, if you purchase three Personal Training Accounts, you receive three PTA IDs).

### 7.1 About the Personal Training Account (PTA)

A Personal Training Account (PTA) is a secure location within The Learning Circle™ that allows you to monitor, assess and guide your child's progress to control his or her attention.

As your child plays the games, the software captures the training information. After each play session, your child's scores are saved and stored on your computer's hard drive.

- If you choose to upload the data after a session your child's scores are transmitted to a secure location on the Web site.
- If you do *not* upload data after a session, the system prompts you to do so the next time you log in.

If you do not upload the scores, your child can still play the games and get training - however, you cannot generate personal training reports.

### 7.2 About PTA Reports

Several PTA reports are available to you. For more information, visit The Learning Circle Web site at:

<http://www.Attention.com>

### 7.3 Adding Additional Personal Training Accounts

Copy to come - via Carl

### 7.4 Closing your Personal Training Account (PTA)

Copy to come - via Carl

## 8 Concentration Index (CI)

### 8.1 What is the CI?

The Concentration Index (CI) is a tool used to evaluate attention skills. The test provides scoring on attention and impulsivity based on test performance.

### 8.2 How Does the CI Work?

**While the test is running:**

*The computer:*

- flashes letters one at a time in the middle of the screen

*The user:*

- presses the space bar on the keyboard **only** when he or she sees the letter **A** followed by the letter **X**.

*Scores are based on:*

- errors of omission (not pressing the space bar when the A-X combination is displayed)
- errors of commission (pressing the space bar when the A-X combination is not displayed).

The test lasts several minutes so the user must pay close attention for the entire test in order to achieve higher scores.

### 8.3 Where to Get the CI

The CI is available for download from the **Attention.com** Web site (located in the "Test Your Attention" section). Follow the instructions online to download the test to your computer.

### 8.4 Recommendations for CI Use

The CI may be taken by any individual interested in scoring his or her attention and impulsivity characteristics.

We recommend that users of The Attention Trainer™ take the CI before beginning to play The Attention Trainer games. The scores can be recorded in The Learning Circle as a baseline measure.

The CI should be taken - and scores recorded in The Learning Circle - after every **10** sessions using The Attention Trainer. Over time the scores can be examined for improvement in ratings of attention and impulsivity.

**Note:** The CI is not intended for use as an independent clinical diagnostic tool. Scores are calculated based on individual test performance. This test is meant to be an informative aid in offering one measure of attention characteristics, and should not be taken out of context or as a sole indicator of status or capabilities.

**The CI is not intended to diagnose any condition or recommend any type of treatment.**

### 8.5 Where to Take the CI

The CI should be taken in a quiet setting with no external distractions (music, television, other people, etc.) The participant should sit comfortably two to three feet in front of the monitor, with the space bar within easy reach. The letters may show up better in a dim room, so turning off any overhead lights and using a table lamp to provide lighting may be helpful.

### 8.6 Setting up the CI for Children

For younger participants, adults may need to set up the test to ensure proper understanding of the instructions.

The first time the child takes the CI, the adult should quietly observe for the first minute. If the child presses the space bar continuously or clicks excessively, the adult should caution the child to press only when he or she sees the A-X combination to prevent lowering the score. **This caution should be given only once.**

In general, the participant should be allowed to complete the CI alone with no interruptions.

Once the test is completed, the adult may need to return to record the test scores. Scores are not saved automatically.

**Note:** In order to avoid potential operating system conflicts, it is advised that you close all other programs while you take the CI.

### 8.7 How to Run the CI

1. Download the CI file from **Attention.com** to your computer. Save the file with the name: **CI Executable**.
2. Double-click on the **CI Executable** file you just saved to launch the test. The East3 logo screen displays briefly, followed by an



introductory explanation of the tool's functionality and limitations in the Disclaimer.

3. Read through the Disclaimer.
4. *If you agree with this Disclaimer*, check the **I agree** box by clicking on it.
5. Click **Next**. The personal information screen displays.
6. Enter the user's **first name** and **last name** in the appropriate fields.
7. Enter the user's **date of birth**.
8. Mark the appropriate radio button for **gender**.
9. Click **Next**. The instruction screen displays.
10. Read through the instructions.
11. Click **Start Test**. The test begins. Testing lasts 500 seconds for ages 12 and under; testing lasts 1000 seconds for ages 13 and over.
12. Continue the test until the completion screen displays the attention and impulsivity scores.
13. Write down the scores and, if applicable, record them on the CI Score Tracking form available from The Learning Circle at the **Attention.com** Web site. *Remember that the results are not saved automatically!*

### 8.8 What the Scores Mean

The attention and impulsivity scores calculated upon completion of the test represent a measure of attention characteristics.

In controlled, clinical settings the CI is one feature of an extensive interview and testing process used to diagnose attention disorders.

The CI does not diagnose an attention disorder. What it does do is provide information on how your child's attention span compares with others his or her same age and gender.

Multiple factors can influence performance on this test such as:

- familiarity with computer games
  - medication effects (i.e. caffeine, antihistamines, anticonvulsants, etc.), and
  - level of interest/motivation to perform well.
- Intellectual level can also affect test results, as children with lower IQ's tend to have more difficulty with this test and children with higher IQ's often do better than the average child.

The scores you receive are measures of your child's ability to sustain attention and level of impulsive responding.

An attention score of:

Less than	For age (yrs)
300	6
500	7
640	8
780	9
820	10
900	11
920	12
970	13 and older

indicates the possible need for further evaluation by a professional for attentional profiling.

An impulsivity score of:

At or greater than	For age (yrs)
52	6
32	7
25	8
18	9
13	10
4	11
3	12
2	13 and older

indicates the possible need for further evaluation by a professional for impulsive tendencies.

## 9 The Learning Circle™



The Attention Trainer™ includes The Learning Circle, an online improvement tracking tool to record, monitor, and guide your child's learning progress. The Learning Circle is available on the Web at

<http://www.Attention.com/learningcircle>

In addition to reporting information from The Attention Trainer, The Learning Circle allows you to collect, record, and access information from your child's doctor, teacher, or others involved in your child's learning. Because this tool is accessible over the Internet and easy to use, you can share this online information with others if you so choose.

You can periodically look at an account's data sorted by category or by date. You can also print reports as needed, such as while you are:

- meeting with your child's physician or
- attending a parent-teacher conference.

Even if you did not purchase The Attention Trainer you may still play games and get training through the **Attention.com** Web site. However, you cannot generate reports without a valid Personal Training Account™, which is available only if you purchase the software.

### 9.1 Basic Components of The Learning Circle

#### 9.1.1 General Observation Form

This form may be used to record open-ended observations made about the development of your child. Include your own observations here, as well as those made by others who play a vital role in your child's well being - grandparents, teachers, physicians, etc. Helpful observations include changes in: school work, behavior, dietary habits, medication, and day-to-day functioning.

#### 9.1.2 Behavioral Information Form

This form is designed to provide you with information on:

- how well your child's attention and learning are being managed

- your child's behavioral, social, and emotional functioning at school
- your child's academic performance

#### 9.1.3 Concentration Index (CI) Data Log

The Concentration Index (CI) is a tool used to evaluate attention skills. The test provides scoring on attention and impulsivity based on test performance. The scores calculated upon completion of the test represent a measure of attention characteristics. For more details, see the chapter entitled *Concentration Index (CI)*.

#### 9.1.4 Personal Training Account (PTA) Information

A Personal Training Account (PTA) is a secure location within The Learning Circle™ that allows you to monitor, assess, and guide your child's progress to control his or her attention. For more details, see chapter entitled The Personal Training Account (PTA).

As your child plays the games, the software captures the training information. After each play session, your child's scores are saved and stored on your computer's hard drive until they are uploaded to a secure location on the Web site.

### 9.2 Accessing your Learning Circle

The Learning Circle home page is an easy-to-use, interactive online tool that resembles a calendar. Account information can be entered daily into forms on the Web site.

To access your Learning Circle, follow these steps:

1. Go to the <http://www.Attention.com> Web site.
2. In the Login box, type your **Member Name** and **Password**.
3. Press **Go**.
4. Click the **My Learning Circle** link in the left navigation bar.
5. Your Learning Circle page displays.

### 9.3 How to Use The Learning Circle

A list of links displays in the upper left portion of all Learning Circle screens. These links allow you to navigate easily through the Web site.

Each link takes you to another screen. From each screen you can perform a different task.

### **9.4 Create a Learning Circle™**

- Go to the Web site at:  
<http://www.Attention.com/learningcircle>
- Click **Create New Learning Circle** in the global navigation panel. A blank form displays.
- Follow the prompts to provide information about the person being monitored in The Learning Circle.
- When you have completed the form, press the **submit** button at the bottom of the screen.
- See the Web site for more information.

- An "Ask the Expert" section with Dr. David Rabiner of Duke University
- Tools and resources to help improve your focus
- Newsletters featuring the latest on attention and training

### **9.5 Update a Learning Circle Profile**

If you need to change information about your Learning Circle:

- Go to the Web site at:  
<http://www.Attention.com/learningcircle>
- Click **Update My Learning Circle** in the global navigation panel.
- Follow the prompts to update information for this profile.
- See the Web site for more information.

### **9.6 Other Learning Circle functions**

The Learning Circle contains feedback from parents, grandparents, teachers, and physicians - any reliable source of meaningful information about your child.

From the Web site you can do the following for each account:

- Enter General Observations, Behavioral Observations or Concentration Index (CI) results for a particular date and by observer type.
- View General Observations, Behavioral Observations or CI results for a particular date.
- Edit, delete, or print individual entries.

See the Web site for more information.

### **9.7 Other Attention.com Resources**

In addition to The Attention Trainer and The Learning Circle, the <http://www.Attention.com> Web site offers an array of other resources to help you increase your attention and learning skills, including:

- A library of articles and research on attention and learning



## 10 Attention.com's Commitment to Privacy

**Attention.com** understands the importance of your privacy. To better protect your privacy, we provide this notice explaining our online information practices and the choices you can make about the way your information is collected and used on this site:

**www.Attention.com**. This privacy policy applies only to Attention.com and not to any other sites that may be linked to ours. Refer to those sites' specific privacy policies to learn how they collect and use information about you.

Our privacy policy contains these sections, which are described in detail below.

- Personally Identifiable Information
- Use of Personally Identifiable Information
- Our Commitment to Data Security
- Our Policy on Personal Information about Children
- Non-Personally Identifiable Information Collected Automatically
- Choice/Opt-Out
- Contacting Us Regarding Your Personally Identifiable Information
- Privacy Policy Changes

### 10.1 Personally Identifiable Information

When you visit **Attention.com**, we will not collect any personally identifiable information about you or your child unless you consent to provide it to us voluntarily. Personally identifiable information refers to any information that can be used to identify or contact you, such as name, email address, mailing address, and phone number.

### 10.2 Use of Personally Identifiable Information

Please understand that by submitting your personally identifiable information to **Attention.com**, you are consenting to the use of such information by **Attention.com** consistent with this statement. **Attention.com** may store, transmit, export, and process your personally identifiable information to better understand your needs and how we may improve our products and services. We may use your personally identifiable information to contact you (for

example, we may send you marketing or promotional materials, or we may respond to your comments or requests for information). We also may enhance or merge personally identifiable information with data obtained from third parties for the same purposes.

**Attention.com will not give or sell your personally identifiable information to any outside organization for the organization's own use without your consent. To operate this Web site and to provide services to the highest possible level, it is necessary that we contract with other organizations. Your information may be shared with these agents or contractors in connection with services that these individuals or entities perform for Attention.com. However, we will take reasonable measures to require that these organizations follow adequate privacy standards in relation to your personal information.**

We will share aggregated demographic information with our partners, customers, and advertisers. The aggregate information is not linked to any personal information that can identify any individual person. We partner with other parties to provide specific services. When you sign up for these services, we will share names or other contact information that is necessary for the third party to provide these services. We will take reasonable measures to require that these organizations follow adequate privacy standards in relation to your personal information.

### 10.3 Our Commitment to Data Security

To prevent unauthorized access, maintain data accuracy, and ensure the correct use of information, we have put in place what we feel to be reasonable physical and electronic procedures to safeguard and secure the information we collect online. If you have any questions about the security of our Web site, please send an email to [privacy@Attention.com](mailto:privacy@Attention.com).

### 10.4 Our Policy on Personal Information about Children

At **Attention.com**, we are especially committed to protecting personal information about children under the age of 13. When you register with us,

we ask you, before we collect any personal information, to confirm that you are 13 years of age or older. We seek this confirmation because we do not want to collect personal information directly from anybody who is under the age of 13. However, at times, we may ask parents to provide information about their children. Such requests, and the way we use such information, will follow the guidelines of this statement.

We intend to collect personal information about children under the age of 13 only from their parents or legal guardians and only after the parents or legal guardians have consented. We will not knowingly collect any personal information directly from children under the age of 13.

If we discover that we are actually collecting or maintaining personal information directly from children under the age of 13, we shall immediately cease to collect any further information from that child without prior written consent from the child's parent or legal guardian. In addition, unless we receive the written consent within a specified time period, we will delete any personal information about that child that has been collected.

#### *10.4.1 Notice to Parents*

You understand that, by providing personal information about your child, you are consenting to allow us to collect and use this information in accordance with this privacy policy. You may agree that we can collect and maintain personal information about your child without agreeing to allow us to disclose the personal information to outside organizations for the organization's own use. You are given the opportunity to opt out of having your child's information used for purposes not directly related to our site at the point where we ask for the information. In addition, you may indicate your preference for not participating in marketing promotions by updating your profile in the My Account section of **Attention.com**.

You may review your child's personal information at any time, delete it and refuse to allow any further collection or use of your child's personal information. Such deletions or refusals may prevent you from using certain sections of **Attention.com**. You have access to the information collected about you and your child through the My Account section of the Web site

and through your Learning Circle. You may make changes or delete information through these areas. If you have any further concerns or questions, please contact us via email at **privacy@Attention.com** or by phone at (804) 342-5888 ext. 244.

### **10.5 Non-Personally Identifiable Information Collected Automatically**

In some cases, we may collect information about you that is not personally identifiable. Examples of this type of information include the type of Internet browser or computer operating system you are using and the domain name of the Web site from which you linked to our site or advertisement.

In addition, when you view **Attention.com**, we may store some information on your computer. This information will be in the form of a "cookie" or similar file and will help us in many ways. A cookie is a piece of data stored on the user's hard drive containing information about the user for record keeping purposes. Our site uses cookies to keep track of your shopping cart and to make sure you don't see the same information repeatedly. We use cookies to deliver content specific to you and to gain knowledge about our site so we can provide greater value and usability to visitors. Our cookies do not contain personal information. The cookie does enable **Attention.com** to link the use of our site with the information you have knowingly provided.

Most Internet browsers enable you to erase cookies from your computer hard drive, block all cookies, or receive a warning before a cookie is stored. Please refer to your browser instructions or help screen to learn more about these functions. If you choose to reject the cookie, you may still use our site. The drawback to this is that some personalization features may be disabled.

### **10.6 Choice/Opt-Out**

You are given the opportunity to 'opt-out' of having your information used for purposes not directly related to our site at the point where we ask for the information. For example, our order form has an 'opt-out' mechanism so users who buy a product from us, but don't want any marketing material, can keep their email address off of our lists. If you no longer wish to receive our newsletter or promotional materials, you may opt-out of receiving these communications

by updating your profile in the My Account section of **Attention.com**.

### ***10.7 Contacting Us Regarding Your Personally Identifiable Information***

Please understand that, by submitting your personally identifiable information to **Attention.com**, you are consenting to the use of such information by **Attention.com** consistent with this statement. If you have submitted personally identifiable information through the **Attention.com** Web site and would like to have that information deleted from our marketing databases, please indicate this preference by updating your profile in the My Account section of **Attention.com**. You may also contact us via email at **privacy@Attention.com** or send a letter to Privacy Officer, Attention.com 1520 West Main Street, Suite 201, Richmond VA 23220.

Users who no longer wish to receive news or promotional materials from us may opt out of receiving these communications by updating their profiles in the My Account section of **Attention.com**.

### ***10.8 Privacy Policy Changes***

We reserve the right to change this policy from time to time. We encourage you to regularly review this policy. If we decide to materially change the way we use personally identifiable information, we will notify users by email or otherwise. Users will have a choice as to whether or not we use their information in this different manner.

## 11 Troubleshooting

On rare occasions, the system may have to recover from a system error. To assist customer service staff with diagnosing errors, the ThoughtCaster Software provides the account administrator with a way to view system hardware and software information and verbally report problems to Customer Service.

### To view system information prior to contacting Customer Service:

- While the ThoughtCaster Software's running press **Ctrl+Shift+G** to launch Guardian.
- Select **About Guardian** from the Help dropdown menu.
- A message box displays Guardian version and copyright information. It also displays base station version, headset version, TSI version, and sensor life.

**Note:** If the steps below in the "How Do I Solve the Problem" column fail to correct the problem, contact technical support at: (phone..... )

### 11.1 Calibration

Message / Visual Feedback	Cause	How Do I Solve the Problem?
<ul style="list-style-type: none"> <li>• The right half of the calibration gauge on the screen remains empty</li> <li>• <b>Message:</b> "The front sensor is not making good contact with the scalp. Try pushing down on the top of the headset towards the front."</li> </ul>	<ul style="list-style-type: none"> <li>• Front sensor is not making good contact with the scalp or is faulty</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Push down on top of headset</li> <li>• Pull down on bill of headset while holding the back in place</li> <li>• Pull the cinch straps tighter</li> <li>• Make sure the sensor is worked through the hair to make contact with the scalp</li> <li>• Try parting the hair down the middle to allow the sensors to rest on the scalp</li> <li>• Make sure the sensors are clean and in good condition</li> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> </ul> <p>If the above steps fail, you may need to switch out the sensors with new ones and try calibrating.</p>



<ul style="list-style-type: none"> <li>The left half of the calibration gauge on the screen remains empty</li> <li><b>Message:</b> "The back sensor is not making good contact with the scalp. Try pushing down on the top of the headset towards the back and pulling on the cinch straps."</li> </ul>	<ul style="list-style-type: none"> <li>Back sensor is not making good contact with the scalp or is faulty</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>Push down on top of headset</li> <li>Push down on back of headset while holding the bill in place</li> <li>Pull the cinch straps tighter</li> <li>Make sure the sensor is worked through the hair to make contact with the scalp</li> <li>Try parting the hair down the middle to allow the sensors to rest on the scalp</li> <li>Make sure the sensors are clean and in good condition</li> <li>Log out of ThoughtCaster system</li> <li>Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>Start over</li> </ul> <p>If the above steps fail, you may need to switch out the sensors with new ones and try calibrating again.</p>
<ul style="list-style-type: none"> <li>Both calibration gauges on the screen remain empty</li> </ul> <p><b>Message:</b> "Looks like we're having trouble calibrating. Make sure the sensors are still good and that you're putting the headset on correctly. Click OK when you're ready to try again."</p>	<ul style="list-style-type: none"> <li>Sensors worn out or faulty</li> <li>Headset not positioned correctly</li> <li>Headset not on head</li> <li>System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>Make sure the sensors are still good</li> <li>Make sure the headset is being fitted properly (see chapter entitled <i>Fitting the ThoughtCaster Headset</i> for assistance with this)</li> <li>Put headset on from front to back, pushing the sensors through the hair as you push it back on the head</li> <li>Try tightening the cinch straps to help pull the headset down on the head more</li> <li>Log out of ThoughtCaster system</li> <li>Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>Start over</li> </ul>
<ul style="list-style-type: none"> <li>Both calibration gauges on the screen remain empty</li> </ul> <p><b>Message:</b> "Please make sure</p>	<ul style="list-style-type: none"> <li>Headset not in Impedance mode</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>Push button on headset until it is in calibration mode. Base station should chirp twice and the headset signal light on the base station should</li> </ul>

<p>you pushed the button on the headset to calibrate. The headset signal light on the base station should be yellow. Click OK when you are ready to continue.”</p>		<p>be yellow when headset is put in calibration mode.</p>
<ul style="list-style-type: none"> <li>Both calibration gauges on the screen remain empty</li> </ul> <p><b>Message:</b> “The system is not receiving a clear signal. Please reset the base station and start the calibration process over. Click OK when you are ready to continue.”</p>	<ul style="list-style-type: none"> <li>Battery worn out or faulty</li> <li>Base station unplugged</li> <li>Headset not on head</li> <li>System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>Log out of ThoughtCaster system</li> <li>Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>Start over</li> <li>Make sure the battery is still good</li> <li>Make sure the base station is still plugged in to the computer</li> <li>Make sure the sensors are attached and in good condition</li> <li>Make sure the headset is placed correctly on the head</li> </ul>

**11.2 Baseline**

<b>Message / Visual Feedback</b>	<b>Cause</b>	<b>How Do I Solve the Problem?</b>
<ul style="list-style-type: none"> <li>Baseline exercise removed from ThoughtCaster display (replaced with message)</li> </ul> <p><b>Message:</b> “The system is not receiving a clear signal. Please start calibration over and try again. Click OK when you are ready to continue.”</p>	<ul style="list-style-type: none"> <li>Salt bridge formed by hair wicking</li> <li>Short between sensors</li> <li>Sensors are worn out or faulty</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>Make sure hair is dry</li> <li>Make sure hair is not getting caught between sensors</li> </ul> <p>(either of these above conditions can result in the sensors collecting a bad signal)</p> <ul style="list-style-type: none"> <li>Make sure sensors are clean and in good condition</li> <li>Log out of ThoughtCaster system</li> <li>Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>Start over</li> </ul> <p>If the above steps fail, you may need to switch out the sensors with new ones and try calibrating again.</p>

<ul style="list-style-type: none"> <li>• Baseline exercise removed from ThoughtCaster display (replaced with message)</li> </ul> <p><b>Message:</b> “The system was not able to collect a good baseline. Please start calibration over and try again. Click OK when you are ready to continue.”</p>	<ul style="list-style-type: none"> <li>• System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Make sure battery is still good</li> <li>• Make sure sensors are clean and in good condition</li> <li>• Make sure base station is still plugged in to the computer</li> <li>• Make sure the headset is placed correctly on the head</li> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> </ul>
<ul style="list-style-type: none"> <li>• Baseline exercise not displayed</li> </ul> <p><b>Message:</b> “Please make sure you pushed the button on the headset to baseline. The headset signal light on the base station should be green. Click OK when you are ready to continue.”</p>	<ul style="list-style-type: none"> <li>• Headset not in EEG mode</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Push button on headset until it is in EEG mode. Base station should chirp once and the headset signal light on the base station should be green when headset is put in EEG mode.</li> </ul>
<ul style="list-style-type: none"> <li>• Baseline exercise not displayed</li> </ul> <p><b>Message:</b> “The system is not receiving a clear signal. Please reset the base station and start the calibration process over. Click OK when you are ready to continue</p>	<ul style="list-style-type: none"> <li>• Battery worn out or faulty</li> <li>• Base station unplugged</li> <li>• Headset not on head</li> <li>• System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> <li>• Make sure the battery is still good</li> <li>• Make sure the base station is still plugged in to the computer</li> <li>• Make sure the sensors are attached and in good condition</li> <li>• Make sure the headset is placed correctly on the head</li> </ul>
<ul style="list-style-type: none"> <li>• Baseline exercise removed from ThoughtCaster display</li> </ul>	<ul style="list-style-type: none"> <li>• Salt bridge between sensors</li> <li>• System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Remain quiet and still while doing the baseline exercise</li> </ul>

<p>(replaced with message)  <b>Message:</b> "The system is having trouble collecting a good baseline. Please start the baseline process over. Remember that it is important to remain relaxed and quiet during the baseline exercise and while playing the game. Don't move around too much, chew gum, eat, or talk while you're playing. Click OK when you're ready to try again."</p>		<ul style="list-style-type: none"> <li>• Stay relaxed and quiet</li> <li>• Do not eat or chew gum</li> <li>• Do not talk</li> <li>• Keep from clenching teeth</li> <li>• Do not tense up face, neck, or shoulder muscles (These things are picked up in the brainwave patterns and doing them excessively can make it difficult to collect a good baseline)</li> </ul> <p><i>If this error persists:</i></p> <ul style="list-style-type: none"> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> </ul>
<ul style="list-style-type: none"> <li>• Baseline exercise removed from ThoughtCaster display (replaced with message)</li> </ul> <p><b>Message:</b> "The system is having trouble collecting a good baseline. Please start the baseline process over. Remember that it is important to remain relaxed and quiet during the baseline exercise and while playing the game. Click OK when you're ready to try again."</p>	<ul style="list-style-type: none"> <li>• Continuous rapid eye blinks</li> <li>• System issues</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Remain quiet and still while doing the baseline exercise</li> <li>• Stay relaxed and quiet</li> <li>• Try not to blink excessively or rub your eyes (These things are picked up in the brainwave patterns and doing them excessively can make it difficult to collect a good baseline)</li> </ul> <p><i>If this error persists:</i></p> <ul style="list-style-type: none"> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> </ul>

### 11.3 Game Play

<b>Message / Visual Feedback</b>	<b>Cause</b>	<b>How Do I Solve the Problem?</b>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message:</b> "Oops! We lost our signal. The headset may have moved out of position. You will need to recalibrate"</p>	<ul style="list-style-type: none"> <li>• Headset movement</li> <li>• Headset off</li> <li>• Out of range (user walks out of room, moves out of range of signal)</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Complete the calibration and baseline sequence again</li> <li>• Make sure headset is placed correctly on the head</li> </ul>

<p>the headset. Click OK when you are ready to continue.”</p>	<p>of signal)</p> <ul style="list-style-type: none"> <li>• Base station disconnected (cable unplugged from PC)</li> </ul>	<p>head</p> <ul style="list-style-type: none"> <li>• Make sure the headset is secured on the head to minimize significant movement of the headset on the head</li> <li>• Make sure the base station is still plugged in to the computer</li> <li>• Make sure the sensors are attached and in good condition</li> <li>• Make sure you do not walk out of range of the base station</li> </ul>
<ul style="list-style-type: none"> <li>• Game continues</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Stay relaxed”</li> <li>• “Stay focused”</li> </ul>	<ul style="list-style-type: none"> <li>• Neck, jaw, or forehead muscle tensing</li> <li>• Teeth remaining clenched</li> <li>• Eating, chewing</li> <li>• Talking</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure you remain quiet and still</li> <li>• Stay relaxed and quiet</li> <li>• Do not eat or chew gum</li> <li>• Do not talk</li> <li>• Keep from clenching your teeth</li> <li>• Do not tense up face, eyes, forehead, neck, or shoulder muscles</li> <li>• Keep your face, neck, and shoulders relaxed (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Remember to stay quiet and still.”</li> <li>• “Let yourself relax.”</li> <li>• “Don’t strain your muscles. Stay as relaxed and still as you can.”</li> <li>• “Let your face and neck muscles relax.”</li> </ul>	<ul style="list-style-type: none"> <li>• Neck, jaw, or forehead muscles remaining tense</li> <li>• Teeth remaining clenched</li> <li>• Eating, chewing</li> <li>• Talking</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure you remain quiet and still</li> <li>• Stay relaxed and quiet</li> <li>• Do not eat or chew gum</li> <li>• Do not talk</li> <li>• Keep from clenching your teeth</li> <li>• Do not tense up face, eyes, forehead, neck, or shoulder muscles</li> <li>• Keep your face, neck, and shoulders relaxed (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul>	<ul style="list-style-type: none"> <li>• Salt bridge between sensors</li> </ul>	<p><i>If high Impedance is detected:</i> You will receive a message asking you to recalibrate:</p>

		<ul style="list-style-type: none"> <li>• Push button on headset until it is in calibration mode. Base station should chirp twice and the headset signal light on the base station should be yellow when headset is put in calibration mode.</li> </ul> <p><b>Note:</b> While recalibrating, follow the tips on the screen to avoid salt bridges.</p> <p><i>If high Impedance is NOT detected:</i></p> <ul style="list-style-type: none"> <li>• Push the button on the headset again. You return to EEG mode and may continue game play.</li> </ul>
<ul style="list-style-type: none"> <li>• Game continues</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Stay awake”</li> <li>• “Don’t get distracted”</li> <li>• “Let your eyes focus on the screen”</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous rapid eye blinks</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure you remain quiet and still</li> <li>• Stay relaxed and quiet while you concentrate</li> <li>• Try not to blink excessively or rub your eyes. Continuous rapid eye blinks or squinting are flagged by this error.</li> <li>• Stay awake and focused</li> </ul> <p>(These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</p>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message(s);</b></p> <ul style="list-style-type: none"> <li>• “Take a deep breath and rest your eyes for a second”</li> <li>• “Let your eyes relax while you concentrate”</li> <li>• “Wake up a little and stay focused””</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous rapid eye blinks</li> <li>• System issues</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure you remain quiet and still</li> <li>• Stay relaxed and quiet while you concentrate</li> <li>• Try not to blink excessively or rub your eyes. Continuous rapid eye blinks or squinting is flagged by this error.</li> <li>• Stay awake and focused</li> </ul> <p>(These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</p> <p><i>If this error persists:</i></p> <ul style="list-style-type: none"> <li>• Log out of ThoughtCaster system</li> <li>• Reset the base station by holding the base station button down for five seconds (all four LEDs will light up)</li> <li>• Start over</li> </ul>

<ul style="list-style-type: none"> <li>• Game continues</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Relax. Keep your cool.”</li> <li>• “Pay attention”</li> <li>• “Concentrate”</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of concentration</li> <li>• Fidgeting</li> <li>• Increasing excitement levels</li> <li>• Nervous tics</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure to stay relaxed and quiet while you concentrate</li> <li>• Take some deep breaths and let your body relax</li> <li>• Stay calm</li> <li>• Keep from fidgeting with your hands and feet</li> <li>• Keep from squirming around in your seat (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Take a couple of deep breaths and relax”</li> <li>• “Take a moment to find your focus. Think about your goal”</li> <li>• “Keep yourself calm. Concentrate”</li> <li>• “Remember to stay relaxed”</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of concentration</li> <li>• Fidgeting</li> <li>• Increasing excitement levels</li> <li>• Nervous tics</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Make sure to stay relaxed and quiet while you concentrate</li> <li>• Take some deep breaths and let your body relax</li> <li>• Stay calm</li> <li>• Keep from fidgeting with your hands and feet</li> <li>• Keep from squirming around in your seat (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> <li>• Try stretching your arms and legs out and then letting them relax. Stretch them out, hold the stretch for a few seconds, and then relax your muscles.</li> </ul>
<ul style="list-style-type: none"> <li>• Game continues</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Pay attention”</li> <li>• “Concentrate”</li> <li>• “Think about your goal”</li> <li>• “Keep alert”</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of concentration</li> <li>• Loss of focus</li> <li>• Loss of attention</li> <li>• Distracted</li> <li>• Daydreaming</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Concentrate on your goal</li> <li>• Don’t let yourself get distracted</li> <li>• Don’t daydream</li> <li>• Pay attention to what you are doing</li> <li>• Let yourself relax and focus on what you are trying to do</li> <li>• Stay awake and don’t let yourself drift off (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>

<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Focus on your goal”</li> <li>• “Don’t let your mind wander”</li> <li>• “Concentrate on what you are trying to do”</li> <li>• “Don’t let yourself get distracted”</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of concentration</li> <li>• Loss of focus</li> <li>• Loss of attention</li> <li>• Distracted</li> <li>• Daydreaming</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Concentrate on your goal</li> <li>• Don’t let yourself get distracted</li> <li>• Don’t daydream</li> <li>• Pay attention to what you are doing</li> <li>• Let yourself relax and focus on what you are trying to do</li> <li>• Stay awake and don’t let yourself drift off (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> <li>• Take a deep breath and pay close attention to your goals in the game.</li> <li>• Make sure there are no outside distractions affecting you. Turn off any TVs or stereos.</li> <li>• Make the room as quiet as possible so that you can concentrate on the game.</li> <li>• Pay attention to what it feels like when you’re doing well in the game (what it feels like to concentrate really well) and try to maintain that feeling.</li> </ul>
<ul style="list-style-type: none"> <li>• Game continues</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Don’t get distracted”</li> <li>• “Stay awake”</li> <li>• “Don’t daydream”</li> <li>• “Concentrate”</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of focus</li> <li>• Lack of concentration</li> <li>• Distracted</li> <li>• Daydreaming</li> <li>• Fatigue</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Concentrate on your goal</li> <li>• Don’t let yourself get distracted</li> <li>• Don’t daydream</li> <li>• Pay attention to what you are doing</li> <li>• Stay alert and don’t let yourself drift off (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>
<ul style="list-style-type: none"> <li>• Game paused</li> </ul> <p><b>Message(s):</b></p> <ul style="list-style-type: none"> <li>• “Stay alert and focus on your goal”</li> <li>• “Don’t let your mind wander”</li> <li>• “Wake up and concentrate on what you are trying to do”</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of focus</li> <li>• Lack of concentration</li> <li>• Distracted</li> <li>• Daydreaming</li> <li>• Fatigue</li> </ul>	<p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>• Concentrate on your goal</li> <li>• Don’t let yourself get distracted</li> <li>• Don’t daydream</li> <li>• Pay attention to what you are doing</li> <li>• Stay alert and don’t let yourself drift off (These things are picked up in the brainwave patterns and doing them excessively affects your performance.)</li> </ul>



<ul style="list-style-type: none"> <li>• “Don’t let yourself get distracted”</li> </ul>		<ul style="list-style-type: none"> <li>• Make sure you stay awake and alert while you play</li> <li>• Take a deep breath and pay close attention to your goals in the game</li> <li>• Pay attention to what it feels like when you’re doing well in the game (what it feels like to concentrate really well) and try to maintain that feeling</li> </ul>
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**11.4 Upload Events**

Message / Visual Feedback	Cause	How Do I Solve the Problem?
<ul style="list-style-type: none"> <li>• <b>Message:</b> “Please re-open ThoughtCaster so that your session data can be saved. If you do not open your ThoughtCaster, your scores from this session will not be saved. It is easiest to leave the ThoughtCaster open on your computer while you are playing the games. Click OK when you are ready to continue.”</li> </ul>	<ul style="list-style-type: none"> <li>• ThoughtCaster closed while second application (game) running</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>
<ul style="list-style-type: none"> <li>• <b>Message:</b> “Your scores from this session were not saved. Please keep ThoughtCaster open while you are playing games so that your scores can be saved when you are finished playing.”</li> </ul>	<ul style="list-style-type: none"> <li>• ThoughtCaster not re-opened after initial error prompt received</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>
<ul style="list-style-type: none"> <li>• <b>Message:</b> “Please upload your data now. Future scores will not be saved unless you upload your</li> </ul>	<ul style="list-style-type: none"> <li>• User has not uploaded session data in 30 sessions</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>

<p>data.”</p> <ul style="list-style-type: none"> <li>• <b>Message:</b> “Your scores cannot be saved for this session. Your data has not been uploaded in over 30 sessions. Please upload your data now. Future scores will not be saved unless you upload your data.”</li> </ul>	<ul style="list-style-type: none"> <li>• User has not uploaded session data in more than 30 sessions</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>
<ul style="list-style-type: none"> <li>• <b>Message:</b> “Your scores cannot be uploaded until you have established a Learning Circle. Your scores have been saved locally for now, but will not be available for reporting until uploaded to a Learning Circle. Establishing a Learning Circle will allow you to upload your scores for easy tracking and reporting and provide important information about your progress.”</li> </ul>	<ul style="list-style-type: none"> <li>• User has registered a PTA locally, but has not established a corresponding Learning Circle online</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>
<ul style="list-style-type: none"> <li>• <b>Message:</b> “To start saving your scores, register your PTA. To fully benefit from the training sessions, establish a Learning Circle and upload your scores to it.”</li> </ul>	<ul style="list-style-type: none"> <li>• User has not registered a valid PTA</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p>

**11.5. General**

Message / Visual Feedback	Cause	How Do I Solve the Problem?
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<p><b>Message:</b> "Please make sure your serial cable is connected from the base station to the serial port on your PC. Click OK when you are ready to continue."</p>	<ul style="list-style-type: none"> <li>• Other software has allocated port (e.g. palm pilot, printer)</li> <li>• Serial cable disconnected</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Make sure serial cable is connected to base station and to PC</li> <li>• If error persists, shut down your system and bring it back up again</li> </ul>
<p><b>Message:</b> "Please make sure your serial cable is connected from your base station to the serial port on your PC. If you continue to receive this error, verify that the port on your PC is enabled."</p>	<ul style="list-style-type: none"> <li>• Serial cable disconnected</li> <li>• Port disabled</li> </ul>	<p><i>Try in succession as part of troubleshooting routine:</i></p> <ul style="list-style-type: none"> <li>• Make sure serial cable is connected to base station and to PC</li> <li>• Verify that the PC port being used is enabled (in your computer settings)</li> <li>• If error persists, shut down your system and bring it back up again</li> </ul>



## 12 Limited Warranty

### ***I. Applicability of Limited Warranty***

EAST3, LTD. warrants that the products identified in this Limited Warranty Statement shall be free from defects in material and workmanship for such period of time as is identified in Paragraph IV below. This limited warranty is valid for Covered Products sold in the United States only and is extended to the original consumer purchaser only from the date of the original purchase.

### ***II. Products covered under this Limited Warranty (the "Covered Products")***

1. The ThoughtCaster™ headset and base station. ("Hardware"); and
2. The following software (collectively referred to as "Software"):
  - a. The ThoughtCaster desktop application;
  - b. Breakaway Racer Game; and
  - c. Other game titles as may be included with The Attention Trainer system

### ***III. Products that are specifically excluded by this Limited Warranty***

1. Any software, save for the Software identified in Paragraph II above, licensed or provided by Warrantor that is used to operate, or used in connection with, the Hardware, including, but not limited to, the games included in The Attention Trainer™ Starter Kit.
2. Any sensors, pads, cables, power cords, and/or batteries provided with the Hardware or Software.

### ***IV. Duration of Warranty***

1. The Hardware is covered by this warranty for a period of twelve (12) months from the date of original purchase.
2. The Attention Trainer Software is covered by this warranty for a period of ninety (90) days from the date of the original grant of the applicable license.

### ***V. Our obligations under this Limited Warranty***

1. **HARDWARE:** IF, DURING THE APPLICABLE WARRANTY PERIOD, ANY

COVERED PRODUCT OR ANY COMPONENT OR PART THEREOF IS FOUND, IN THE SOLE AND REASONABLE JUDGMENT OF EAST3, TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP, SUCH COVERED PRODUCT OR COVERED COMPONENT OR PART THEREOF WILL, AT EAST3'S SOLE DISCRETION, EITHER BE REPLACED OR REPAIRED BY EAST3 OR BY A SERVICE DEALER APPROVED AND APPOINTED BY EAST3. EAST3 WILL PROVIDE REPAIR PARTS OR REPLACEMENT PRODUCTS ON AN EXCHANGE BASIS, AND THESE PARTS OR PRODUCTS WILL EITHER BE NEW OR REFURBISHED TO BE FUNCTIONALLY EQUIVALENT TO NEW.

2. **SOFTWARE:** THE SOFTWARE IS not sold by East3 to the consumer or user of the Covered Products, but is licensed to the original consumer pursuant to a separate software license agreement. EAST3 WARRANTS TO THE ORIGINAL CONSUMER ONLY THAT THE SOFTWARE CONFORMS TO ITS STATED SPECIFICATIONS AND THE MEDIA UPON WHICH THE SOFTWARE IS PROVIDED IS FREE FROM MANUFACTURING DEFECTS. SUCH WARRANTY SHALL BE FOR A PERIOD OF NINETY (90) DAYS FROM THE DATE OF ORIGINAL GRANT OF LICENSE. UPON PROMPT NOTICE OF A CLAIM WITHIN THE WARRANTY PERIOD, EAST3 WILL, AT ITS SOLE DISCRETION, PROVIDE FIXES, UPGRADES, OR PATCHES IF AVAILABLE, REPLACE DEFECTIVE MEDIUM OR REFUND SUMS PAID FOR SUCH SOFTWARE.

### ***VI. Warranty Limitations***

This warranty shall not apply if this product: (a) is used with products and/or software not sold or licensed by East3 (including, but not limited to, non-licensed game enhancement and copier devices, adapters, and power supplies); (b) is used for any commercial purpose (including, but not limited to, rental); (c) is modified or tampered with; (d) is damaged by negligence, accident, unreasonable use, or by other causes unrelated to defective materials or workmanship; or (e) has had the serial number altered, defaced, or removed in any way.

## **VII. Your obligations under this Limited Warranty**

The original purchaser is entitled to the benefits of this warranty only if the date of purchase is registered at point of sale or if the original purchaser can demonstrate to the satisfaction of Warrantor that the Covered Product was purchased, in the case of the Hardware, within the previous 12 months, and, in the case of the Software, within the previous 90 days. Please retain the original or a legible photocopy of your dated sales receipt to clearly establish the date of purchase for in-warranty repairs or replacements.

1. East3, Ltd. will accept returns from the original purchaser under the following conditions: The customer must provide the original packing slip, a sales receipt, or a clear copy of the packing slip or sales receipt showing the date of purchase.
2. All returns must be postmarked within 90 days of the date on the packing slip or sales receipt for defective The Attention Trainer software and within one year for defective ThoughtCaster hardware.
3. Opened software with broken licensing agreement seals cannot be resold and therefore cannot be returned independently of the rest of The Attention Trainer system. (**Note:** software can only be returned if defective according to warranty conditions.)
4. You will need to contact our customer care center through our Web site at **www.Attention.com** to request a return. You will be issued an RMA (Return Materials Authorization) number to help track your return when it arrives. We CANNOT accept returns without an RMA number.
5. The RMA must be clearly labeled on the front of the return package. Again, we will NOT be able to accept a return without an RMA number. East3 recommends you ship your return via UPS or another shipping service with tracking capabilities. We will not accept responsibility for lost packages and no credit can be given for lost returns.

## **VIII. DISCLAIMERS**

THE FOREGOING IS THE COMPLETE WARRANTY FOR THE COVERED PRODUCTS AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN. EAST3, LTD. SPECIFICALLY MAKES NO WARRANTY THAT

THE CONSUMER OR USER OF THE COVERED PRODUCTS WILL ATTAIN ANY PARTICULAR RESULT OR LEVEL OF PERFORMANCE USING THE COVERED PRODUCTS. EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE WITH RESPECT TO THE COVERED PRODUCTS AND EAST3 HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED HEREIN, INCLUDING TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. IN THE EVENT THAT ANY WARRANTY TERM IS IMPLIED BY APPLICABLE LAW AND SURVIVES THIS DISCLAIMER BY VIRTUE OF ANY APPLICABLE LAW, ANY SUCH IMPLIED WARRANTY IS STRICTLY LIMITED IN DURATION TO, IN THE CASE OF THE HARDWARE, THE 12-MONTH WARRANTY PERIOD, AND, IN THE CASE OF THE SOFTWARE, TO THE 90-DAY WARRANTY PERIOD. ACCORDINGLY, ANY IMPLIED WARRANTIES ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF APPROPRIATE 12-MONTH OR 90-DAY WARRANTY PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY MAY LAST, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EAST3, LTD.'S OBLIGATIONS UNDER THIS WARRANTY ARE STRICTLY AND EXCLUSIVELY LIMITED TO THE REMEDIES STATED IN PARAGRAPH V ABOVE, AND EAST3 DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION.

UNDER NO CIRCUMSTANCES WILL EAST3, LTD. BE LIABLE TO THE PURCHASER, OR TO ANY USER OF THE COVERED PRODUCTS OR SOFTWARE, FOR ANY DAMAGES, EXPENSES, LOST REVENUES, LOST SAVINGS, LOST PROFITS, LOSS OF TIME, INCONVENIENCE, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE PURCHASE, USE, OR INABILITY TO USE THE COVERED PRODUCTS OR SOFTWARE EVEN IF EAST3, LTD. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR

CONSEQUENTIAL DAMAGES SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

***IX. ASSIGNMENT OF THIS LIMITED WARRANTY***

East3, Ltd. may, in its sole discretion, assign this Limited Warranty or any part thereof to any other party whatsoever.

EAST3, LTD.

1520 West Main Street, Second Floor

Richmond, VA 23220

PHONE NUMBER (804) 342-5888

## 13 Money Back Guarantee

The Attention Trainer comes to you with a 30-day money back guarantee. East3 will accept returns and exchanges from customers who have purchased The Attention Trainer under the following conditions:

1. East3, Ltd. will accept returns from the original purchaser under the following conditions: The customer must provide the original packing slip, a sales receipt, or a clear copy of the packing slip or sales receipt showing the date of purchase.
2. All returns must be postmarked within 30 days of the date on the packing slip or sales receipt.
3. Opened software with broken licensing agreement seals cannot be resold and therefore cannot be returned independently of the rest of The Attention Trainer system. (**Note:** software can only be returned if defective according to warranty conditions.)
4. All items must be in salable condition and contain all original product manuals and documentation.
5. You will need to contact our customer care center through our Web site at **www.Attention.com** to request a return. You will be issued an RMA (Return Materials Authorization) number to help track your return when it arrives. We CANNOT accept returns without an RMA number.
6. The RMA must be clearly labeled on the front of the return package. Again, we will NOT be able to accept a return without an RMA number. East3 recommends you ship your return via UPS or another shipping service with tracking capabilities. We will not accept responsibility for lost packages and no credit can be given for lost returns.
7. Full credit will be issued via your payment method upon receipt of the product and compliance with these return conditions. SHIPPING AND HANDLING ARE NON-REFUNDABLE



## 14 Frequently Asked Questions (FAQ)

### What is attention training?

Attention training is a painless and noninvasive technique best described as a learning exercise that trains people to control their brainwaves. When information about one's own brainwave activity is revealed in real-time, a person can learn to change his or her brainwaves. This is quite literally an "exercise" for the brain.

### How does it work?

The brain is amazingly adaptable and capable of learning. It can even learn to improve its own performance, if it is shown what to change. By making information available to the brain in real-time about how it is functioning, and asking it to make adjustments, it can do so. These games challenge the trainee to maintain this "high-performance," alert and attentive state. Gradually, the brain learns and the brain retains the new skill.

### What is the difference between The Attention Trainer™ and regular video games?

While most video games require hand-eye coordination, The Attention Trainer also incorporates attention levels (brainwaves) as an input into the games. The enhanced software in the games provides a tool to help learn how to control levels of attention. Simply, The Attention Trainer uses specially designed, East3 Enhanced™, video games to keep players interested while they are learning to master their attention skills.

### Can anyone use this product?

The Attention Trainer™ headset, or ThoughtCaster™, has been designed specifically for children between the ages of 7-14. However, The Attention Trainer™ may be used by adults or older children, as additional headset sizes are made available. We recommend that people with a history or a likelihood of seizures, bipolar disorders, closed head injuries, anxiety, or depression consult their physicians before use. Also, we recommend that directions for use provided with the product be followed as safety guidelines.

### How often should The Attention Trainer™ be used and for how long?

The Attention Trainer™ should be used once or twice a week for 30 to 45 minutes per session. While the number of sessions needed to acquire this skill varies, on average 40 sessions are needed to master the training. The Attention Trainer can be used as often as desired. The more frequent the use, the more quickly you may learn to control your attention.

### What happens if I stop using The Attention Trainer™ after only 20 sessions instead of the recommended 40?

Like any training regimen, it takes a certain amount of time before any changes are seen. Typically, benefits may begin to be seen at around 20 sessions and maximum benefits at around 40 sessions. Continued practice beyond the 40 sessions is encouraged to maintain the skill. If training is stopped prior to reaching the goal, full benefit cannot be obtained nor sustained.

### How long does it take to see results?

While the number of sessions needed to acquire this skill varies, on average 40 sessions are needed to master the training. It is possible to see results with as few as 20 sessions. The more frequent your use, the more quickly you can learn to control your attention.

It is important to note that there is no known intervention that will work for everyone. The Attention Trainer™ is no exception and the benefit each person receives will vary. It is important to monitor each child individually and encourage completion of the training.

### Can someone abuse or over-use The Attention Trainer™?

It is not possible to over-use The Attention Trainer however; it is recommended that directions for use provided with the product be followed as safety guidelines.

### Can the The Attention Trainer™ be used while taking medication?

The Attention Trainer is not a medical device or treatment. Therefore, there is no correlation between use of The Attention Trainer and any medication an individual may be taking. The Attention Trainer's benefits are independent of an individual's level of medication. Consult your physician about any questions you may have concerning medication.

### Is The Attention Trainer™ FDA approved?

The FDA approves medical devices. The Attention Trainer is not a medical device, and therefore does not require approval. It is not intended for diagnosis or treatment. It is a tool that can help an individual control his or her ability to concentrate.

#### **Is it safe?**

The Attention Trainer™ is noninvasive. It detects signals emitted from the external surface of the head. Although The Attention Trainer poses no greater threat than a Walkie-Talkie or regular video games, it is not recommended for children under the age of 7. There are no harmful side effects from using The Attention Trainer.

Although safe, if health issues exist, it is recommended that a physician be consulted prior to use.

The sensors contain a simple solution that has been tested.

#### **Are there side effects?**

While The Attention Trainer™ does not have side effects, it is recommended that any individuals who may have a history or possibility of seizures or bipolar disorders check with their doctors before using this system.

#### **How much parental involvement is required?**

There generally is little parental involvement required, although this will vary by child. Children will benefit from a parent's involvement and encouragement. Tools provided with The Attention Trainer™ and at [www.Attention.com](http://www.Attention.com) make it easy for parents to stay involved and create a positive environment for continued training.

#### **Can I use the headset for more than one child?**

You can use the same headset for more than one child. You will need to replace the sensors more frequently due to increase usage. Sensors should be replaced after 30 hours of use. The system will prompt you to replace the sensors. The same care should be used when sharing the headset (ThoughtCaster™), as you would use sharing hats.

#### **Is The Attention Trainer™ easy to use?**

It is easy to get started with The Attention Trainer™. Everything you need is included with the system including a Quick Set-up Guide and batteries. Once you have finished the easy set-

up, you are ready to start training. As with any game, it takes practice to master the necessary skills. But, the warm-up game included with the system will allow your child to discover how to interact with the training system, giving them a sense of accomplishment.

#### **What is a Personal Training Account™?**

A Personal Training Account is a secure location online that allows you to monitor, assess and guide your child's progress with The Attention Trainer™. After each play session, your child's scores are sent to a secure location on the Web site. These scores are used to create personal training reports that provide you results and information on your child's training.

#### **What is a Learning Circle™?**

The Learning Circle is an online improvement-training tool to monitor and guide your child's learning progress from a variety of sources. In addition to reporting information from The Attention Trainer™, The Learning Circle provides you the ability to collect and record information from your child's doctor, teacher or others involved in your child's learning. Because this tool is accessible over the Internet and easy to use, you can share this information with others.

#### **What is the difference between a Learning Circle™ and a Personal Training Account™?**

A Personal Training Account is a component of The Attention Trainer™. It contains the performance data and information uploaded directly from The Attention Trainer games. A Learning Circle is an online community where you and individuals you invite (your child's teacher or doctor) can contribute, share, and monitor you child's overall progress. A Personal Training Account is part of a Learning Circle.

#### **Is the information collected secure?**

Attention.com is a secure site. Please refer to the Privacy Policy located on this site.

#### **Can I use The Attention Trainer™ with my other video games?**

While most video games require hand-eye coordination, The Attention Trainer also incorporates attention level (brainwaves) as an input into the game. As such, The Attention Trainer will only work with specially designed, East3 Enhanced™ games. The East3 Enhanced software in the games provides

feedback to help learn how to control attention. Simply, The Attention Trainer uses these East3 Enhanced video games to keep the players interest while they are learning to master their attention skills. The Attention Trainer will not prevent, nor interfere with, the use of other games you may currently be using on your personal computer.

The headset (ThoughtCaster™), as well as the other components of the The Attention Trainer will not work with other non-East3 Enhanced games. Wearing the headset during the play of other non-East3 Enhanced games is not recommended as it does not provide any additional value to other games, and it will reduce the life of the sensors inside the headset. Results achieved using The Attention Trainer may not be achieved by playing other non-East3 Enhanced games.

#### **How can I buy The Attention Trainer™?**

Pre-order now online at [www.Attention.com](http://www.Attention.com).

The Attention Trainer will be available in a limited quantity in early 2001. Purchases will be filled in the order that they are taken.

#### **What methods of payment do you accept?**

We are happy to accept MasterCard and Visa.

#### **Where do you ship products?**

We will ship products in the continental U.S., Alaska, and Hawaii. At this time we can only ship merchandise to a valid residence or business street address and cannot ship to a P. O. Box or U. S. military post office box addresses such as an APO or FPO.

#### **Is there a money-back guarantee?**

There is a 30-day money back guarantee for The Attention Trainer™. Details of the guarantee can be found in the chapter entitled *Money Back Guarantee*, as well as in the *Start Training* section of the [Attention.com/learningcircle](http://Attention.com/learningcircle) Web site.

#### **Is there a warranty?**

There is a one-year limited warranty on The Attention Trainer™ system and a 90-day limited warranty on games. Details of the warranty can be found in the chapter entitled *Limited Warranty*, as well as in the in the *Start Training* section of the [Attention.com/learningcircle](http://Attention.com/learningcircle) Web site.

#### **How can I track my order?**

You can review the status of any order placed with us. Simply click on the My Account link on any page of **Attention.com**. Changes to your order can be made by calling customer service. You can find the customer service number on the confirmation email you received at the time of your order.

#### **When will my order arrive?**

Upon placement of your order or pre-order, you will be given an estimated delivery date. The first shipment of The Attention Trainer™ is scheduled for delivery in early 2001.

#### **How fast does my Internet connection have to be?**

The Internet is not required during a training session. It is only used to upload training data and to view training related reports at **Attention.com**. A high-speed connection is not a necessity; a 28.8 modem will serve your needs.

#### **How can I connect The Attention Trainer™ to a PC?**

The Attention Trainer can be installed and configured using the easy-to-follow instructions provided. The Attention Trainer can be installed and configured in about 15 minutes.

You will need to connect the Base Station to a personal computer using the serial cable provided. You will then need to install software, and attach the sensors to the headset. Using the software provided you'll be asked to create users. Once this is done, you can start training.

#### **What are the computer requirements?**

The Attention Trainer™ System is a Windows 95 or 98 operating system with at least a 32 MB Intel Pentium processor or compatible. A CD drive is also necessary. An Internet connection is recommended.

#### **Is there someone I can direct questions to?**

If you did not find the answer to your question on this page, please send us e-mail. Simply click on the Customer Service link located at the bottom of every page of **Attention.com**. Or call us at the customer service number provided with your order confirmation. We will be happy to help you.

#### **What do I do if The Attention Trainer™ is not working properly?**

The Attention Trainer comes with a user's manual and operating instructions. Both email and a toll-free number can be used for Technical Support to assist with any problems. You can locate the [Customer Service number](#) in your user manual. The [Technical Support](#) team will be available during our normal Customer Service hours, which are Monday through Friday noon till midnight, and Saturday from 8:00 am till 6:00 pm, Eastern Standard Time.

#### **How do I get replacements?**

You can order replacement hardware, software and sensors directly from the [Attention.com](#) Web site, or by calling customer service.

#### **Is technical support and assistance available?**

Attention.com will provide a robust customer service section for those individuals with questions about how to set up and use The Attention Trainer™. In addition, assistance will be available through Customer Service.

#### **When will new games be available?**

Additional games will be available for purchase on [Attention.com](#) as they become available. We expect new East3 Enhanced™ games to be available every few months.

#### **Where can I get additional games for The Attention Trainer™?**

The Attention Trainer system comes complete with three East3 Enhanced™ games. Additional games will be available for purchase on [Attention.com](#) as they become available. We expect new East3 Enhanced games to be available every few months.

#### **Who makes The Attention Trainer™?**

East3, Ltd., a technology commercialization and development firm specializing in advanced feedback technology, has developed The Attention Trainer™ in consultation with NASA and other leaders in the industry. The East3 technology builds on more than 25 years of research done in clinics and by the government. For more information about East3, Ltd., visit [www.east3.com](#).

#### **Where else can I look for information about neurofeedback/ biofeedback?**

In addition to the Read & Research section at the [Attention.com](#) Web site, we recommend these sources:

- *A Symphony in the Brain: The Evolution of the New Brain Wave Biofeedback* by Jim Robbins. Atlantic Monthly Press, New York, 2000.
- Association for Applied Psychophysiology and Biofeedback
- Southeastern Biofeedback and Neurobehavioral Institute  
<http://www.brainwavebiofeedback.org/>
- NASA's Langley Research Center
- - *Biofeedback: A Practitioner's Guide*, Second Edition by Mark S. Schwartz and Associates. The Guilford Press, New York, 1995.

## 15 Glossary

<b>Account Holder</b>	The person with the top level of security, who sets up the account on The Attention Trainer Web site, and who is responsible for granting access to a Learning Circle. An account holder can have multiple Learning Circles.
<b>ADHD</b>	Attention Deficit Hyperactivity Disorder.
<b>Application Registry</b>	A file that is stored on the local PC that contains the licenses for all applications that are authorized to upload data to The Learning Circle. The ThoughtCaster installation program creates this file.
<b>Assessment Application</b>	An application program that is designed to capture measurements for use in assessing the player's mastery of skills.
<b>Baseline</b>	The process the user undertakes that provides the ThoughtCaster Software starting point from which East3 Enhanced applications can gauge the users current mental state.
<b>Beta/Theta Ratio</b>	A measure of engagement as derived from EEG sensors.
<b>Calibration</b>	The process the user undertakes to ensure the headset is correctly positioned and that a good signal is received.
<b>CI</b>	The Concentration Index (CI) is one tool used to evaluate attention skills. The test provides scoring on attention and impulsivity based on test performance.
<b>East3 Architecture</b>	The hardware and software that implement the East3 Business proposition.
<b>East3 Runtime Environment</b>	The system architecture in a 'running' state - with data being acquired, feedback modified, scoring reported, assessment feedback acquisition, etc.
<b>East3 Services</b>	A collection of services that provide advice, guidance and interpretation of assessment data.
<b>Engagement</b>	An attribute that represents how focused a player is in performing a task (see Beta/Theta ratio).
<b>Family Member</b>	One of any number of persons who uses web-based East3 services for the purposes of assessment tracking or informational access.
<b>Guardian</b>	The administrative section of the ThoughtCaster Software. Guardian allows creation, deletion and customization of all user accounts.
<b>Host Platform</b>	A processing element that receives data from the bay station. The host platform provides the resources for learning applications and assessment applications, and also provides the gateway to East3.com services through the web.
<b>Hyperactivity</b>	An attribute that represents agitation (see SMR).
<b>Learning Circle</b>	A personalized area on The Attention Trainer Web site with restricted access, used for posting information regarding an individual player's scores and progress. There is only one player associated with a Learning Circle.
<b>ThoughtCaster Software Interface (TSI)</b>	The combination of sensing, filtering, and decoding technologies which feed physiological measures of engagement and concentration into East3 enabled applications.
<b>Neuromesure</b>	A number representing neurofeedback measurements of alpha, beta, theta and SMR.
<b>Personal Training Account</b>	The capability to upload East3 game performance and other system data to a particular Learning Circle.
<b>Player</b>	The person using the East3 hardware and software; in the case of The Attention Trainer, this is the individual who is playing the games. The East3 software tracks the player's scores and neuromesures.
<b>PTA ID</b>	A unique number issued by East3/Attention.com that identifies a Personal

	Training Account.
<b>Repair Time</b>	A grace period during which contact with the TSI may be interrupted or distorted. Applications continue to operate as normal as is practical during the repair time interval.
<b>Roster</b>	A file on the local PC that contains pertinent information about the players on the system, and whether their scores are eligible for upload to The Learning Circle. The ThoughtCaster installation program creates this file.
<b>SMR</b>	A measure of hyperactivity as derived from EEG sensors.
<b>ThoughtCaster™</b>	A term used to refer to the hardware combination of the base station and the headset. The ThoughtCaster Software interface allows the player to access East3 Enhanced applications.
<b>Threshold</b>	An index/time value used to compare to sampled frequency indices (e.g. Attention Index = 60 for 5 seconds).
<b>Threshold Auditing Period</b>	An interval defined by application programs during which the TSI checks to see if a defined threshold was attained.
<b>Training Application</b>	An application designed to encourage the development of specific skills.

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