

Mind WorkStation™

Brainwave Entrainment Software For Professionals



Mind WorkStation is geared toward professionals, researchers or people who simply want unprecedented power over their audio/visual stimulation experience.

Intuitive Work Environment

While Mind WorkStation is easily the most powerful application ever developed for brainwave entrainment, the intuitive interface makes it very simple to perform a variety of common tasks. In fact the program does much of the work for you.

The interface is specifically designed for brainwave entrainment and therapy. All the features commonly needed to create sessions are at your fingertips, with additional enhancements making it easier to work with and faster to accomplish what needs to be done.

Mind WorkStation is a full-featured brainwave entrainment software package for professionals.

Whether you are a therapist, researcher, developer, neurofeedback practitioner or simply a brainwave entrainment enthusiast, Mind WorkStation gives you the tools you need to create real cognitive change.

Advanced Brainwave Stimulation

The process of neural stimulation has been perfected and extended in Mind WorkStation. All forms of audio/visual stimulation are possible, along with revolutionary new methods. Everything from isochronic tones and binaural beats, to sound filtering, AudioStrobe, and on-screen visualizations. Complex filtering methods allow you to use any audio source as the carrier for brainwave entrainment. And, with the new frequency band selector features, it can do this without distorting music.

Original Content

Mind WorkStation incorporates some exciting new content types, such as the Ambience Generator, which arranges thousands of small audio samples to produce a unique ambient environment, such as a forest, a beach, crystal bowls or wind chimes. The best part about this type of content is that it is different every time you use it!

Playlists, tone chords, on-screen visualizations and many other unique content types are support. And, ALL content in Mind WorkStation can be used as a carrier for brainwave stimulation.

EEG-Driven Stimulation / Biofeedback Integration

Mind WorkStation is compatible with many popular biofeedback devices and software packages. You can link up to these devices and use them to control entrainment frequencies, to graph their data along with a session, or to control on-screen visualizations as a form of biofeedback game.

Effects

Mind WorkStation ships with a number of advanced effects, including echo, reverb and even "3D sound" where you can place or move a sound in 3D space. You can adjust the pitch or tempo of any sound file. Filters such as band-pass and low-pass are implemented, along with a wide variety of modulation types such as autopanning.

Most importantly, these effects are specially designed to be used with brainwave entrainment. Sound effects in other programs can often act to degrade the effectiveness of brainwave entrainment. In Mind WorkStation, everything has been designed from the ground up to ensure that sound and visual effects will promote brainwave entrainment, not impede it.

Feature Outline

Brainwave Entrainment

Binaural Beats, Isochronic Tones, Harmonic Box X and more

All popular brainwave entrainment methods are supported.

Sound Filtering

Sounds and playlists can be used directly as carriers for brainwave entrainment by using complex audio filters. Using all-new features, this can be done without distorting the music.

AudioStrobe

AudioStrobe is integrated, making Mind WorkStation compatible with every AudioStrobe device.

Right / Left Hemisphere Stimulation

Built-in features make it easy to stimulate the left and right cerebral hemispheres individually.

Random Stimulation

Extensive randomization features let you to randomize brainwave frequency, times, phase, intensity, pitch and more.

Control Frequencies In Real-Time

Control the stimulation in real-time (as the session is playing and the client is listening).

Screen Display

Screen Flashing

Use the computer screen to stimulate the brain.

Visualizations

Choose from hundreds of visual plugins which can be used for their hypnotic properties, as a feedback mechanism for biofeedback, or "pulsed" to provide a subtle form of brainwave entrainment.

Color Display

Colors can be displayed on screen and even changed (ramped) as the session progresses.

Biofeedback / Neurofeedback

EEG & Biofeedback Driven Stimulation

A range of EEG and biofeedback devices can be used to actually drive the brainwave stimulation.

Connect to multiple devices

Mind WorkStation supports a wide range of both personal and professional biofeedback devices.

Gather data and information from biofeedback for research

Use data collected from biofeedback and EEG devices as an aid in research.

On-Screen Visual Feedback

The screen display features can be used as a feedback mechanism and on-screen visualizations can act as a biofeedback game.

3D & 2D Graphing

Powerful graphing features allow you to easily chart any part of the session, including data received from biofeedback devices.

Export to XML, HTML, Text, Excel

The graphed data can be exported to common data formats.

Flexibility / Programmability

Editing Flexibility

Controlling frequencies, waveform, intensity, phase and every other aspect of the stimulation.

Engines

Use mini-programs called engines to implement custom formulas, data sets, randomization, and algorithms.

For Programmers

Program directly through an innovative Microsoft .NET plugin interface.

Content & Creation

Sound, Playlists

Add unlimited sound files to any session, and place them anywhere on the timeline you like.

Randomly Generated Content

Generate unique audio soundscapes, such as forests, beaches, crystal bowls or wind chimes. The best part about this type of content is that it is different every time you use it.

Piano Controls

Use the piano controls to harmonically arrange tones for special types of stimulation, or simply to create a more pleasant session.

Microphone Recording

Recording capabilities, including noise reduction, are included. Live recordings can be played directly through the headphones or speakers as the recording is ongoing.

Text-To-Speech

Synthesize audio speech from text.

Exporting

Export to MP3, OGG or WAV. Compressed exports are automatically configured for brainwave entrainment purposes based on the content of your session.

Technical Information

System Requirements

Windows 2000 / XP / Vista (All Versions)

Required

512 RAM

800x600 resolution

500MHz CPU or higher

60 MB hard drive space for installation

Recommended

2 GB RAM or higher

1024x768 resolution or higher

1GHz CPU or higher

10 GB recommended free hard drive space

Internet connection for easy product registration

Hardware Requirements

No special hardware is required except in certain situations:

- Microphone (if recording is desired)
- Headphones (for certain types of stimulation)
- AudioStrobe decoder or AudioStrobe-compatible mind machine (if LED glasses are to be used)

Export Types

Sessions can be exported to sound file types WAV, MP3 and OGG. Compressed exports (MP3, OGG) are automatically configured depending on the content of your session. This is very important with brainwave entrainment content, where incorrect compression settings can negatively affect the signals, or strip them out altogether.

Using the graphing features, data can be exported as delimited text, XML, HTML, Excel or any image format.

Import Types

Supports importing files from Neuro-Programmer 2 (.NPS files), Brain Sound Studio / Neural Noise Synthesizer (.BWT files), Mind Stereo (.MSES files) and GNaural (.GNAURAL files).

Compatible Biofeedback Devices

Personal Biofeedback Systems: *ThoughtStream*, *Mind-Reflection*, *GSR2*, *BioScan*, *emWave (Freeze Framer)* and *LightStone / IOM (Wild Divine's hardware)*

EEGs directly supported: Emotiv EPOC, NeuroSky (no other software is required)

EEG Software Supported: *BioEra*, *BioGraph*, *BioExplorer*

EEG Software Supports: *Brainmaster*, *Brainquiry PET EEG*, *Pendant EEG/HEG*, *Pocket A1-A3*, *WaveRider (all versions)*, *Neurobit Lite*, *NeuroAmp*, *Mindfield MindMaster*, *OpenEEG*, *NTA-1000*, *SpectraLite Pro*, *Mind Tuner*, *J&J C-2*, *J&J C-2 mini*, *J&J C2+*, *QDS NFK*, *Roshi 1-2+*, *Procomp2*, *FlexComp Infiniti*, *ProComp Infiniti* and *ProComp5*

Compatible Mind Machines / AVS Devices

Light/Sound Synergizer, Proteus, MindSpa, Procyon, Sirius, Orion, Nova Pro, InnerPulse, PR-2X (with A/S decoder), Mind's Eye.

NOTE: ALL AudioStrobe-compatible devices will work with Mind WorkStation.

Supported Sound Formats

MP3, OGG, WAV, WMA, MP2, MP1, FLAC, AIF.

MP4 and M4A are also supported using a downloadable open-source plugin.

CD tracks can also be used directly from the CD by importing the .CDA files present on the CD.

Neuro-Programmer 2 sound files (.NPSND) can also be used.

NOTE: Sound formats that are copy-protected cannot be used in Mind WorkStation.

Version Comparison Chart

	Regular	Professional	Enterprise
All forms of brainwave entrainment (binaural beats, isochronic tones, etc)	✓	✓	✓
Embedding BWE into sound	✓	✓	✓
AudioStrobe	✓	✓	✓
Screen Flashing / Visual Plugins	✓	✓	✓
Random Stimulation	✓	✓	✓
Biofeedback Support: LightStone (Wild Divine), ThoughtStream, Emotiv EEG, NeuroSky EEG and more	✓	✓	✓
EEG-Driving with Emotiv EPOC EEG	✓	✓	✓
Sounds / Playlists	✓	✓	✓
Piano Controls	✓	✓	
Echo / Reverb	✓	✓	✓
3D Spatial Audio Positioning	✓	✓	✓
Pitch / Tempo Adjustments	✓	✓	✓
Phase / WaveForm Control	✓	✓	✓
Filters (Band-Pass, Low-Pass)	✓	✓	✓
Frequency Band Selection for BWE (patent-pending)	✓	✓	✓
Export to MP3, WAV, OGG	✓	✓	✓
Microphone Recording (with Noise Reduction)	✓	✓	✓
Text-To-Speech	✓	✓	✓
Undoing, Zooming, Syncing, Snapping	✓	✓	✓
Importing Files	✓	✓	✓
Randomization Engine	✓	✓	✓
Data Table Engine	✓	✓	✓
Formula / Expression Engine	✓	✓	✓
Ambience Generator	✓	✓	✓
Additional Ambience Presets	✗	✓	✓
Recording while playing	✗	✓	✓
Graphing Tool	✗	✓	✓
Timer Engine	✗	✓	✓
Advanced Engine Functions	✗	✓	✓
Functions For Expressions	✗	✓	✓
Additional (Professional) Session Examples	✗	✓	✓
Additional (Professional) Templates	✗	✓	✓
Real-Time Exporting (Export While Playing)	✗	✗	✓
Real-Time Control Console	✗	✗	✓
BioExplorer, BioGraph and BioEra support	✗	✗	✓
Advanced EEG-Driven Stimulation Protocols & Designs	✗	✗	✓
Additional (Enterprise) Templates	✗	✗	✓
Additional (Enterprise) Sessions	✗	✗	✓
Engine Plugins	✗	✗	✓
Engine Plugins SDK	✗	✗	✓
Advanced Support Level	✗	✗	✓
Commercial License	✗	✗	✓

Advanced Technical Information

Mind WorkStation's XML Specification

The file type of the program is XML-based, making it easily readable by other programs, and very easy to debug if there is a problem.

Microsoft .NET Plugins

Enterprise version customers will receive an API developers can use to create plugins. Anyone with Microsoft .NET knowledge will easily be able to use the plugin interface. It is flexible but very straightforward. Once a plugin is constructed, it can be used to gather data from biofeedback engines and/or control any content or brainwave frequency in the session.

NOTE: Plugins are only supported in the enterprise version.

Mind WorkStation™

Brainwave Entrainment Software For Professionals

For more information on MindWorkStation, visit:
<http://www.mindws.com>

