# **Brakemoor**<sup>TM</sup> **Overview**

- Monitor ache and help manage fatigue
- Physiological Fatigue (simplistically) occurs in two forms
  - Ache Fatigue: Aerobic resource exhaustion
  - o Pain Fatigue: Anaerobic byproduct (toxin) build up
- Why can it go unnoticed?
  - Two factors might help explain many work related syndromes.
    - The Muscle "Vegas" Effect! What happens in muscles stays in muscles!
      - Scientists have shown that even under low force work conditions levels of anaerobic toxins can build up in muscles that are not detectable in the blood stream.
    - The "Cognitive Distraction" Effect
      Too busy working to notice Ache Fatigue so you can enter into and remain too long in the Pain Fatigue zone!
      - Migraine research suggests that concentration and pain circuits in the brain overlap so that when you are busy doing "thinking work" the thinking circuit attenuates (inhibits) the pain recognition circuit, so while your body still sends pain messages the brain
        - It is thought to be a primeval survival/reward process needed back in the days when perceiving so reacting to pain when you were "busy" could have been the difference between eating lunch and being lunch!

isn't "hearing" them as it might were you not so busy.

- So how does Brakemoor™ Work?
  - Processes
    - Air Brake™ Mini Breaks
    - Fatigue Brake™ Breaks
  - o The 3 R's of Anti.Fatigue™ Breaks
    - Re-Aeration
    - Relaxation
    - Recovery
- Computer & Software Design Designates Ability!
  - o As computers, and computer work as we are discovering, are not natural there is no such thing as disability. How manufacturers design them designates ability. Therefore Brakemoor™ includes audio and visual prompting options; we are all capable of fatigue.

# **Brakemoor**<sup>TM</sup> Anti.Fatigue<sup>TM</sup> Software

(PC Version)

Mini Breaks: Air Brake™ Re-Aeration

& Stage 1 of a Fatigue Brake™ break.

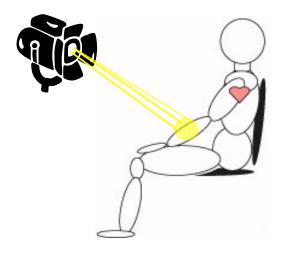


#### Air Brake™

- A "Work De-Coupling" stage to refocus, so remind you to look out for you!
- A visually prompted deep breathing routine to regularly top up on oxygen
- **Spotlight Scan™**: An awareness reminder to check for Fatigue Ache.
- An Air Brake™ is: -
  - User selectable as a Mini Break
    - User defined interval in between
    - Work detection option
  - User selectable as Stage 1 of a Fatigue Brake™
  - o **Soft Disable™:** suspends input; click mouse to override
  - o Audio prompt option: eyes can be closed and so rested



During **Air Brake™** imagine scanning a spotlight over your muscles that focuses awareness on that part illuminated by it. You can perform it with your eyes closed to rest eyes and take a break from static gaze. It helps you to notice achy muscles in the 30 seconds or so it takes to do a simple deep breathing exercise. Focus on those zones that maybe problematic so as to remember to look out for them and also remember to adjust your break duration settings to suit you.



## **Work Settings**:

- Fatigue Threshold: time between Fatigue Brakes™
  - Via work detection or user determined
- Start when Windows<sup>®\*</sup> starts
- Air Brake<sup>TM</sup> On
- Air Brake™ Interval (Mini Break frequency)

\*Windows is a registered trademark of the Microsoft Corporation



# Fatigue Brake<sup>TM</sup>

### Stage 1 Re-Aeration: - Air Brake™ "Top Up"

- The "Work De-Coupling" Step
- Increases blood oxygen saturation









### Stage 2 Relaxation: "Circulatory Perfusion"

#### Passive Muscle Visualization™ (PMV)



- Upper limb muscles are progressively and consciously relaxed allowing
   Air Brake™ "topped up" blood to more easily perfuse into muscles
- The **Fatigue Brake™** session is "Passive" as muscles are imagined as relaxing and not physically tensed and relaxed as in the Active Technique. The Active Technique requires about 20 minutes or more for a whole body workout, though will be an option in some **Brakemoor™** versions.
- Passive Muscle Visualization™ is a more practical element of a sedentary work fatigue management program, more easily performed and also "contortion free" while sat at your desk. Also, as muscles have already been held under tension while working, it gives them a break!
- Upper Limb Visualization Zones





- Relaxation Settings
  - Enable PMV
  - o Enable **PMV** audio prompts
    - Once assimilated only audio input required, so rests eyes.

### **Stage 3 Recovery**: Physiological Equilibration.

"Allowing the benefits to take a hold"

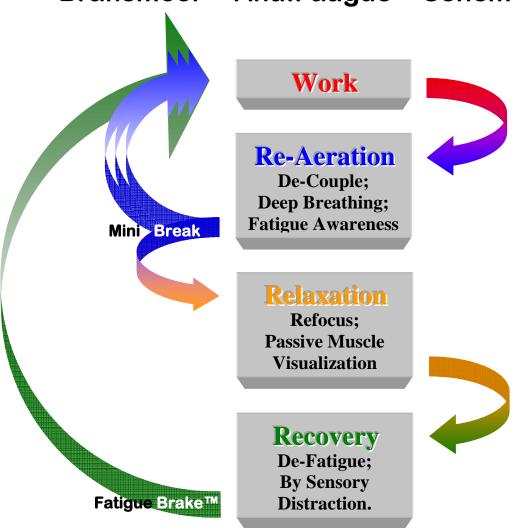
#### **Audio Visual Rest Period (AVRP)**

- Fatigue Brake™ Duration: the total time for Stages 1, 2 & 3
  - AVRP time is "Duration" less 1 minute (time for Stages 1 & 2)
- Break Out Hotkey
  - o With an "Are You Sure?" pointed reminder
- Media File handling
  - Drag and drop all media files into My Brakemoor™ folders
  - "Send To" function to link to them without having to move or copy
  - Random placement of pictures that zoom to minimize static gaze
- Media Sources:
  - Hard drive (Internal/External)
  - Standard Music CD's
  - Mixed Data CD's (with legally owned audio)
  - Flash memory Drives
  - Mp<sup>3</sup> Players (For audio or mixed media if acting as flash memory)
- Audio Options
  - File Types
    - .mp<sup>3</sup>/ .wav/ .wma
  - Audio Options
    - Add/Remove
    - Listen
    - Adjust volume
    - Play (in Break) in Sequence or Randomly
    - Stop audio at break end (or else continue to track end)
  - o Internet Radio (In some Brakemoor™ versions)
    - Add/Remove Station
    - Edit selected
    - Play (in Break) Selected, In Sequence or Randomly
    - Select and Edit Genres
- Visual Options
  - File Types
    - .jpg, .png, .bmp, or .qif
  - Visuals
    - Add/Remove
    - View (in Break) Selected, In Sequence or Randomly
    - Seconds per image
  - Show a screensaver

#### **General Features**

- Settings
  - Single page display of current settings
- System Tray status indicator
- On Screen help via fully loaded instruction set
- Audio Mute Hotkey (with volume control on some versions)
- Does Not Record & Report, So "Profile", User Activity or Productivity

## Brakemoor<sup>TM</sup> Anti.Fatigue<sup>TM</sup> Schematic



## Designer Appliances, Inc.

Designers & Manufacturers of **Anti.Fatigue™** Hardware & Software Systems

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