

## BrainMaster 2.5SE Dynamic Screen Layout and Component Renaming

### Dynamic Screen Layout, and Component Band Renaming in BrainMaster 2.5SE

BrainMaster has added a new set of capabilities to the 2.5SE software, which is continuing to be developed, as it leads toward a final release in early 2006. The most recent improvements, in addition to the Event Wizard, Math Wizard, and Flash Player, include dynamic screen rearrangement, automated resizing, and the ability to redefine the names of all frequency bands.

Until now, all biofeedback software has been based on a “screen design” approach, in which the placement and size of all components are fixed, and the user must set up the layout beforehand. While screens can be resized to fit the display adapter, they usually only change their overall size, without changing the placement of the various panels and displays. Thus, displays are unnecessarily fixed in place. Some systems offer “preset” layouts to choose from. But all screen designs must be specified beforehand, and generally are not changeable by the user during system operation. With 2.5SE, our Dynamic Screen Layout (or “super sizing”) technology allows the user to select from any of a wide range of screen sizes and layouts based on one protocol, and to switch quickly between them by simply resizing the BrainMaster window, and by selecting or deselecting panels “on the fly”.

Using Dynamic Screen Layout, the display will automatically adjust the length of the EEG shown, as well as the number of panels shown, and their placement, to suit the available space and pixel resolution. The length of the EEG display is automatically adjusted, as is the number and arrangement of the control panels. When using a small window, a short EEG segment will be seen (typically 1 to 2 seconds). Using the standard mid-size window, the usual 4-second segment will be seen. If the window is maximized to fit the PC display, the duration will be from 6 to 10 seconds or more, depending on the available space. In addition, the width of the panel “tiling” is adjusted, so that, depending on the screen width, either 1, 2, 3, 4, or more panels will be “stacked” on the bottom row. If space permits, two or more rows of control panels can be shown. All panels are automatically placed according to a “dataflow” order, so that the displays are easily understood. In addition, any popup windows can be placed over, or alongside the training screen.

With 2.5SE, there is no need to “design” processing protocols, or to “set up” training screen layouts. This is all done automatically, and layouts are set up as the software is operated. All processing elements are built in, and all displays are automatically available for selection as panels, or as popup windows, as needed. Popup windows can be moved and resized at any time, providing flexible trainee displays, as well as automatic support for “dual monitor” or even 3, 4, or more display monitors.

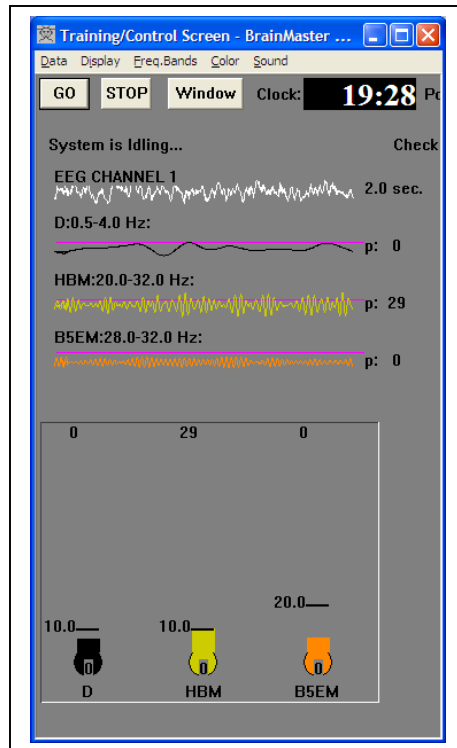
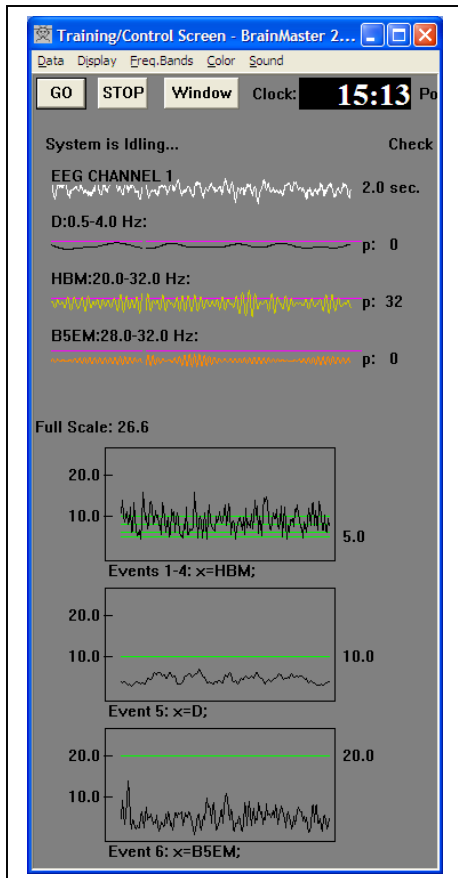
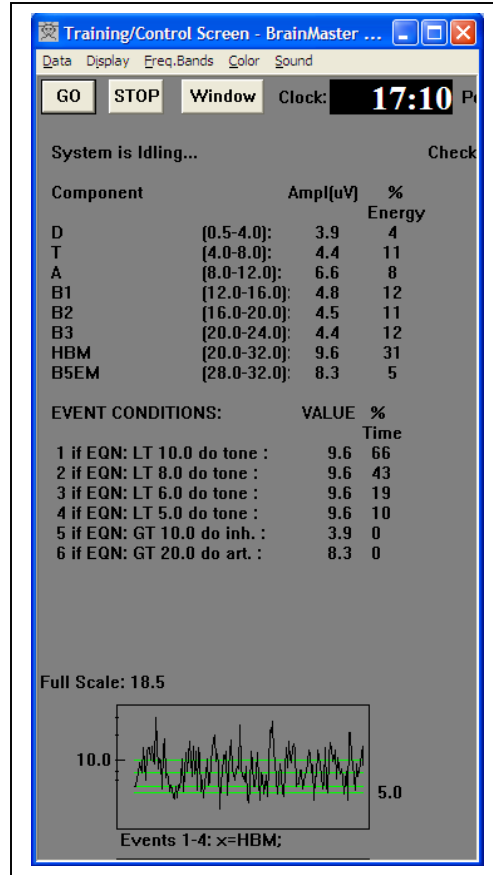
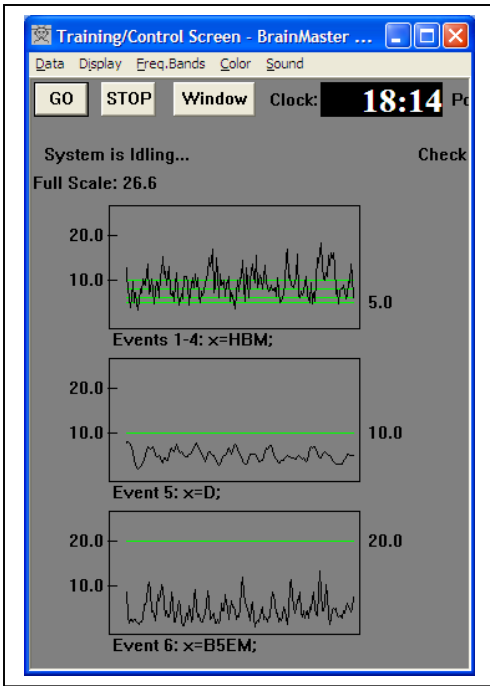
The main Training/Control Screen displays the EEG and all associated control panels. As it is resized, it adjusts its display to use the available space and screen resolution. If you have a high-resolution monitor, the system will allow you to view more information at once, depending on the size you choose to make the Training/Control Screen.

2.5SE also now has Component Band Renaming, which allows the clinician to rename the bands, as well as specify any bandwidth from 1 to 64 Hz, with an accuracy of 0.001 Hz. Renamed component bands are automatically “picked up” by the Event Wizard and Math Wizard, and are immediately available in the design of protocols.

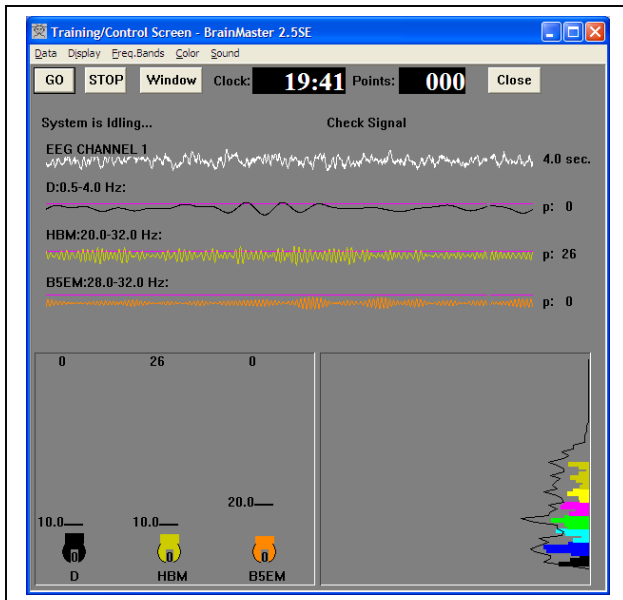
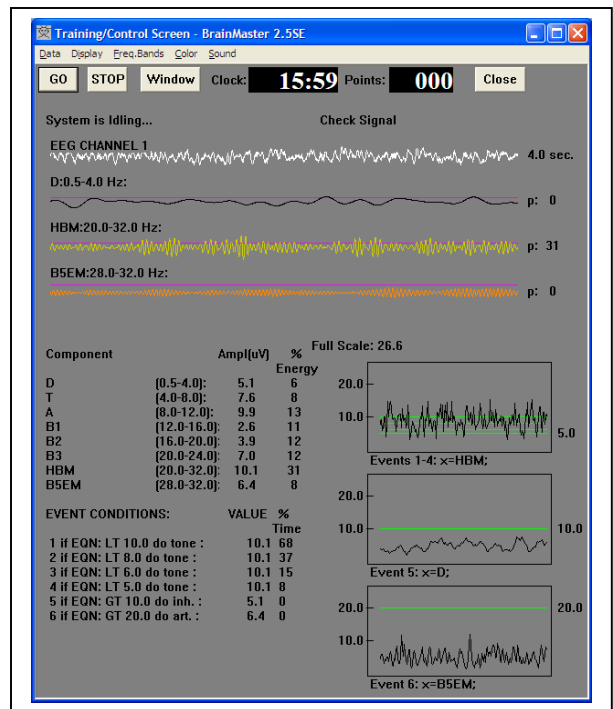
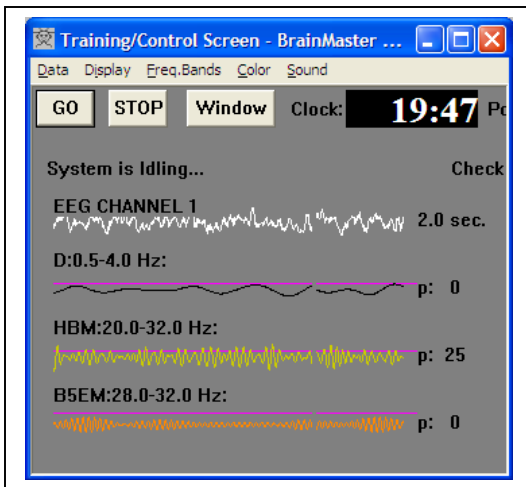
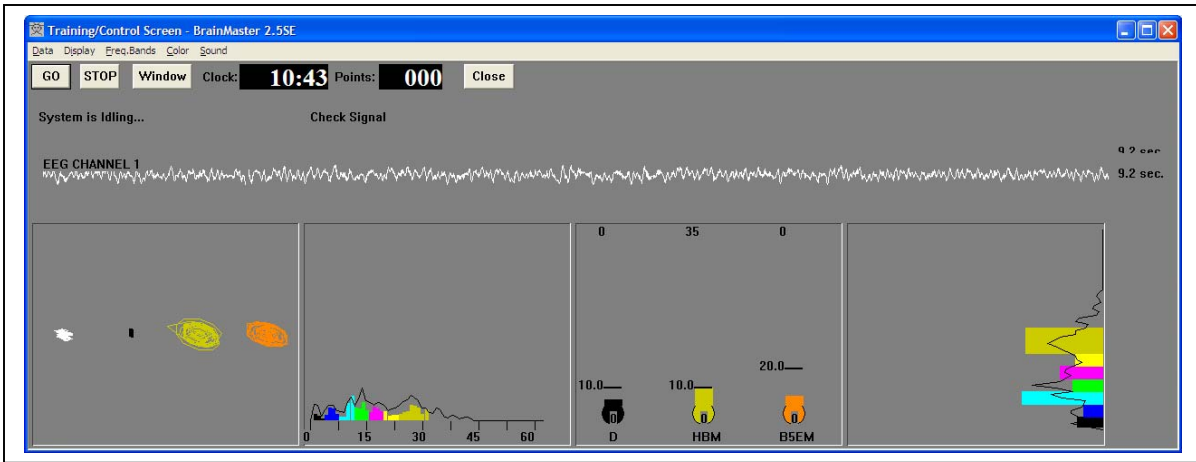
For example, in a typical multiple inhibit protocol, the following types of screens would be immediately available, and could be “hot switched” to suit the immediate need. These examples illustrate Component Band Renaming, Event Wizard displays, and the dynamic screen layout.

Note that all layouts shown are for the main Training/Control console. All games and additional popup screens remain useful as separate windows, on the primary or on one or more secondary monitors. These include the popup windows for the built-in screens (“X-Wing, Boxflow, Numbers, BrainScape, etc.), Multimedia Player, Flash Games, and third-party software.

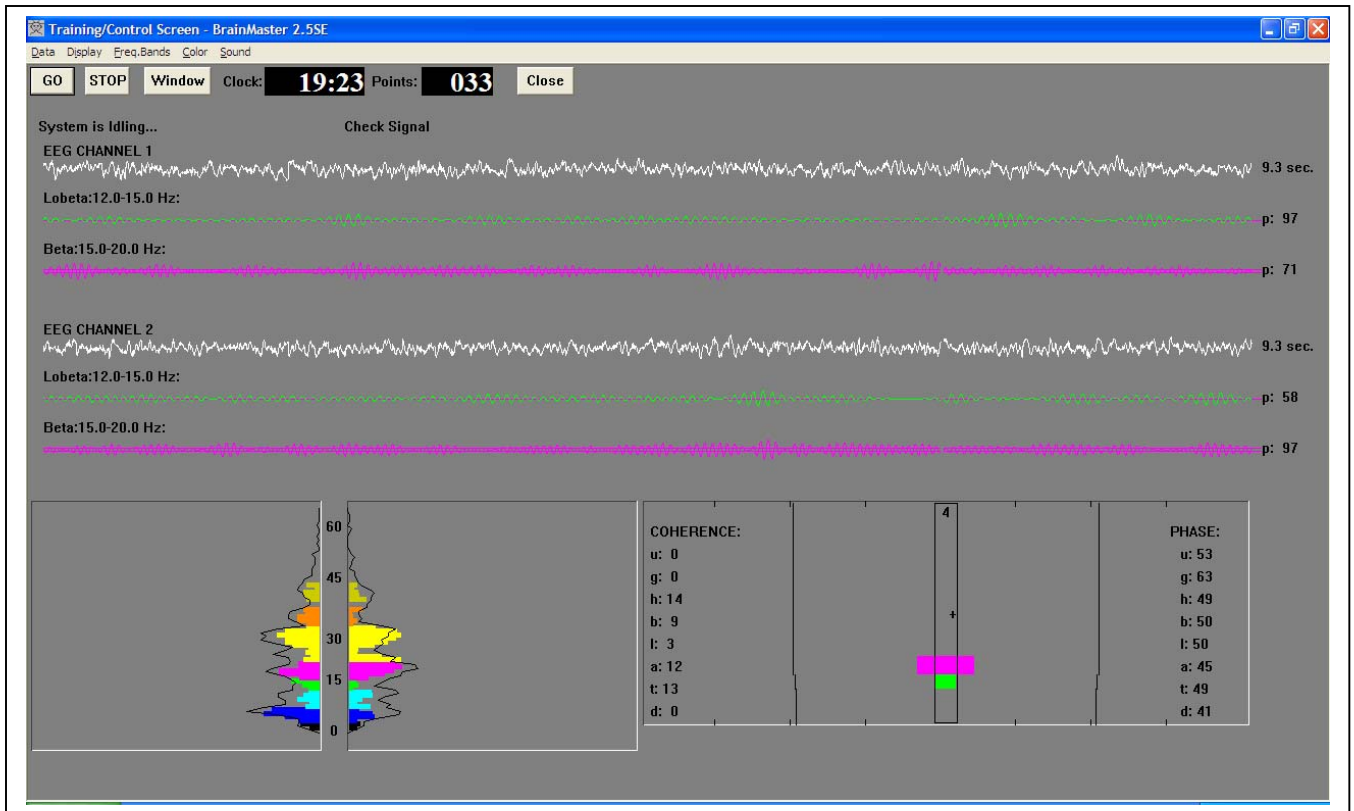
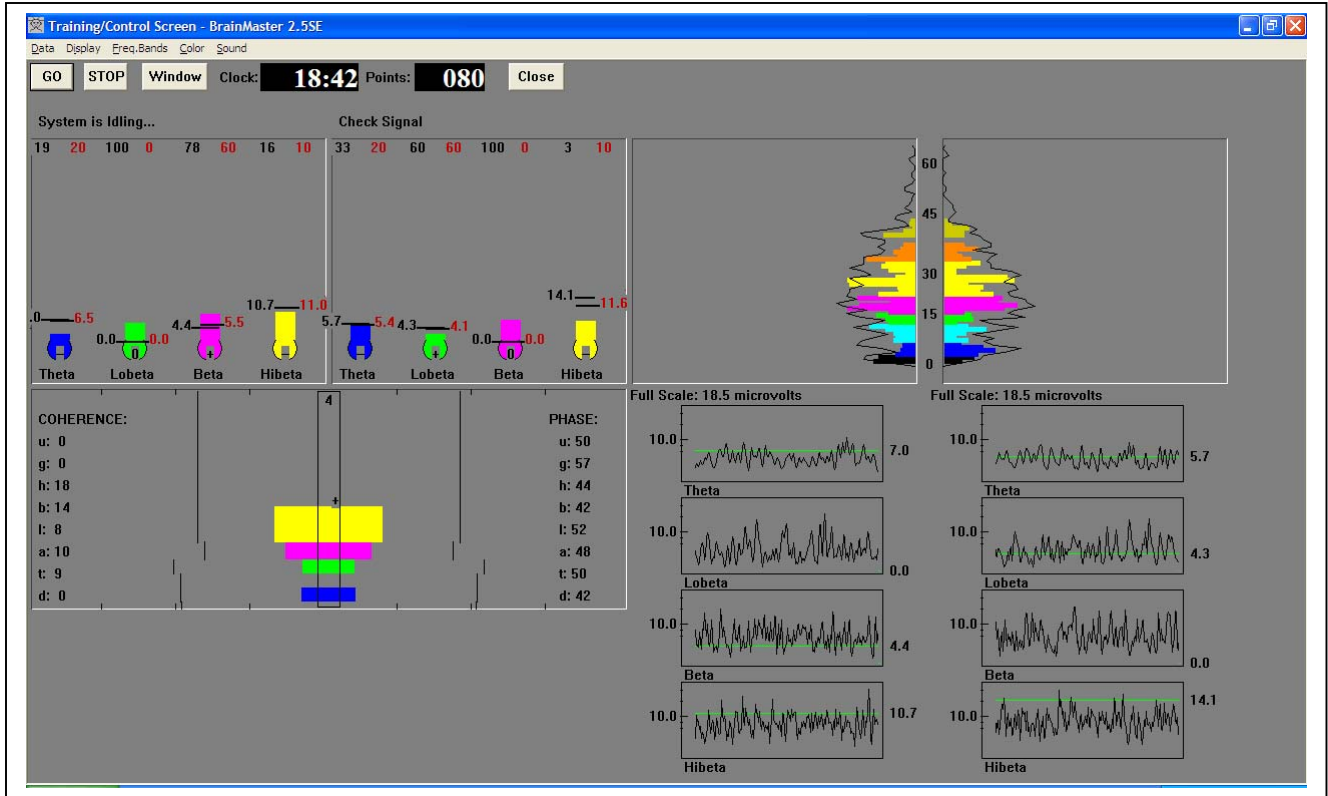
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