
PORTABLE INTERACTIVE SYSTEMS

AN OVERVIEW

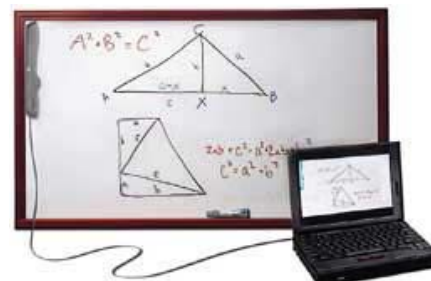
Phoenix AV Solutions Ltd

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The following are outline overviews of some of the portable systems available.

1. INTERACTIVE 'STICK-ON' SYSTEMS (Mimio / eBeam)

The portable interactive device is designed to offer the same interactivity as that offered by the large scale interactive whiteboard, by allowing any user to interface with their computer from the boards position. The principle is based on 'the device' – generally a scanning unit mounted along the top, side or corner of the board and a stylus pen which operates either by infra-red or ultra-sound – being connected to the computer, usually by USB cable or wireless USB Key / 'dongle'.



One advantage of the portable device (other than the hugely obvious one of their portability), is that they can be used with almost any surface such as standard marker board, flip-chart and even glass window or blank wall.

a. Interactive Mode

The computer's screen image is projected back onto the board via a separate data video projector also connected to the computer. The scanning unit monitors the location of the stylus and calculates by triangulation its position, thus relating to the mouse position on the computer.



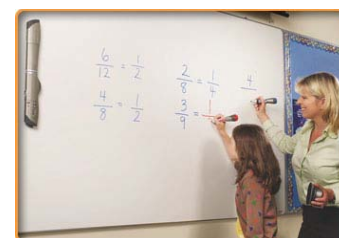
The user can then control their computer via the board using a special stylus. This is usually done after a quick calibration or orientation process whereby the user clicks onto a number of projected points on the screen. This in turn tells the computer where the mouse should be when the user touches the board image.

In this basic format, the user can now work with any programme on their computer in the normal way using the stylus or their finger to control the mouse.

The devices will also have their own software to allow greater levels of interaction. It is this interactive software that contains the additional features such as turning the system into an electronic flipchart or allowing the user to annotate over their computer programmes. (See 'Software' at the end).

b. Capture Mode

Another excellent feature of these systems is that they are also available as 'Capture Devices' – to be used without a projection system. Again, they could be mounted on a standard flip-chart holder, marker board or glass window.



Optional special stylus holders are available to take standard marker pens. When the device is connected to a computer without a projector, the user can annotate on the chosen surface using the marker pens in their holders. The system tracks the pen and when ready, the user pushes a button on the bar to store that page. They can then clean the marker board and move on to their next page.

All annotations are stored onto the computer and can be recalled at a later time when the annotations can be manipulated, printed off or converted to a number of formats for dissemination.



Mimio Interactive + Capture



eBeam Interactive

2. INTERACTIVE PANELS

These are 15" – 19" interactive LCD panels which can be used instead of an interactive board or device. They are connected to the computer / laptop by USB and VGA cable and also to the projection system. The user is able to interact directly with the computer via the panel annotating on the LCD glass.

These systems are particularly good for disabled users and those who cannot reach up to a wall system as well as for theatres and lecture halls where the screen size is exceptionally large.

Most of the interactive board brands have their own versions of the Interactive Panel which comes packaged with the same interactive software, thus ensuring commonality (see below).



3. INTERACTIVE TABLETS

The Interactive Tablet is a light, hand-held wireless / Bluetooth tablet between A4 and A5 size. This acts in the same way as a graphics pad allowing the user to control their computer remotely along with any interactive software they may have. Although it requires slightly more hand-eye coordination, it can be used in conjunction with an interactive board or panel or on its own.

These systems are again, ultra portable and offer the user the freedom to wander around the room. Controlling their PC from any position. It can be given to those attending for them to use thus reducing class / room movement to and from the screen. Finally, some systems allow for multiple devices to be used together to the same computer.



4. RESPONSE / VOTING SYSTEMS

Although not classed as an interactive system in the same manner as those described above, these are never-the-less excellent training and meeting aids. They range in shape, size and functionality but allow for users to respond to questions be they via a slide show or verbal and have their answers collated for the trainer or meeting controller.

These answers can be viewed in a number of ways either on the projected screen, within graphs or databases. More information can be found at the Phoenix AV website.



5. SOFTWARE

Each of the above devices comes with a 'driver' required to be loaded onto the computer in order to control them. In addition, each will have its own software to allow interaction with the computer and applications. These software packages and their capabilities can vary greatly, the majority being the same as the interactive board brands they support.

Most software systems will allow a 'dual mode' capability for 'whiteboard' use and interactive PC.

a. Whiteboard Mode:

The electronic screen is converted to a blank sheet. The user can select a range of pen colours and vary pen thickness to draw and write onto this blank page. Options such as an eraser will be to hand to correct mistakes. Many have additional capabilities such as multi-coloured pens and so on. The user can add to the notebook any number of additional pages and move between them like a flip-chart.

In addition to basic annotations, most will allow the user to import a range of external documents such as pictures, Microsoft documents / spreadsheets / PowerPoint etc so they can be annotated over and stored within the notebook pages. All objects and annotations can be moved, resized etc (not with PolyVision 'Walk & Talk boards') and the handwriting converted to text on the page.

b. PC Mode:

In this mode, the user is working and controlling their computer via the board or device screen. Either from a free floating icon / toolbar or shortcut icons on the board, they can annotate over anything they are looking at (including internet pages) and capture those pages / annotations into their notebooks.

This is excellent for referring back to various subject matters that would otherwise have been lost. Again, some systems have the capability to annotate directly into 'live' documents including handwriting recognition capability.

c. Saving & Dissemination

All the software packages save the data into their own format. This means when re-opened, it can be re-manipulated and the objects re-sited etc.

However, in recognition that not everyone will have the software within a training session or meeting, most will allow you to not only print the pages, but export to a variety of formats including pdf, html, jpeg, bmp and even PowerPoint. This way, all members of the meeting or training can have a copy of the notes including relevant annotations.

d. Additional Features

Some software products have additional features that are worth considering such as the ability to play document cameras / video conferencing and web-cam images through them, capturing clips to the notebook. The Hitachi systems with the Starboard software are unique in that they have free networking capability built-in allowing users to network over 40 systems in varying locations for real time, live interaction between them.

6. Projection Systems

To make your board and device fully interactive requires a projection system, of which there are hundreds to choose from. However, this document deals with portability for which there are a smaller range of available systems to choose from.

One system we highly recommend considering is the Casio XJ-S range of which there are several variants. These projectors are small and compact enough to fit in a briefcase or travel bag but also offer excellent standard and optional features within the range. These include varying brightnesses, ability to connect wirelessly to a computer and for PC-less presentations using a USB Key.

The combination of a system such as the Casio XJ-S projector and Mimio interactive device offers an outstanding package for any use be that training, meetings or presentations.

Highly recommended is the Casio XJ-S range.



NOTES

For more information on any products areas mentioned please visit our website at www.phoenix-av.co.uk or contact our offices on 01952 677144.