

SCREENLESS DISPLAY

LAVANYA.K¹ Dr.N.SHANMUGAPRIYA²

¹Head of the Department of Computer Applications (PG), Dr.SNS Rajalakshmi
College of Arts and Science, Coimbatore – 641049.

²MCA Student, Department of Computer Applications (PG), Dr.SNS Rajalakshmi
College of Arts and Science, Coimbatore – 641049.

ABSTRACT: This paper talk's advent of the Screen less display which is an emerging new skill, has become a good prospect in the near future for a wide range of applications. As the name indicates it deals with the display of several things without the use of screens using projector. It involves the following 3 different working principles. The Visual image, Virtual retinal display, Synaptic interface. This paper mainly explains and demonstrates how the screen less displays works and its applications in various fields of science. This physical would bring about the revolution in the field of displays and displays that are costly, huge and are proven difficult to manage the power supplies and limits. It is also the advanced practical invention. This paper mainly explains and demonstrates how the screen less displays works and how the Ravebot is used in the ground of science.

Keyword: hologram, visual image, retinal direct, synaptic interface

I. INTRODUCTION:

Screenless display is the present developing skill in the field of the computer-enhanced skills. It is going to be the one of the greatest technical development in the coming future years. Several patents are still working on this new developing knowledge which can change the whole spectacular view of the screen less displays. Screen less display knowledge has the main aim of displaying (or) transmitting the information without any help of the screen (or) the projector. Screen less displays have become a new rage of development for the next GEN-X. Screenless videos describe systems for communicating visual information from a video source without the use of the screen. Screen less figuring systems can be divided mainly into 3 groups:

- Visual image
- Retinal direct
- Synaptic interface

BACKGROUND

A.VISUAL IMAGE

Visual Image screen less display includes any screen less image that the eye can observe as shown in figure 1 and 2. The most public example of Visual Image screen less display is a hologram

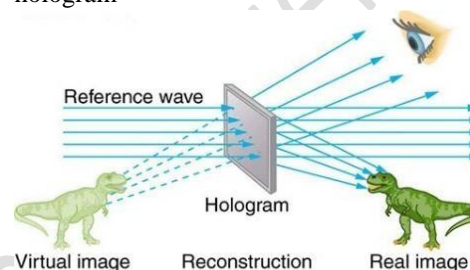


Fig 1. Example of visual Image

HOLOGRAM:

Holograms were used mostly in communications as an alternative to screens. Holograms could be conveyed directly, or they could be stored in various storage devices (such as holodiscs) the storage device can be hooked up with a holoprojector in order for the stored image to be accessed. Fig.2. Example of visual Image Doubtfully, virtual truth spectacles (which consist of two small screens but are nonetheless sufficiently different from old-style computer screens to be careful screen less) and heads-up display in jet units (which display images on the clear cockpit window) also are included in Visual Image category. In all of these belongings, light is reflected off some intermediate object (hologram, LCD panel, or cockpit window) before it reaches the retina. In the case of LCD panels the light is refracted from the back of the panel, but is however a reproduced source. The original software and hardware will enable the user to, in effect; make design changes in the system to fit his or her particular needs, aptitudes, and preferences.



Fig.2. Example of visual Image

B. RETINAL DISPLAY:

Virtual retinal display systems are a class of screen less displays in which images are projected directly onto the retina as shown in figure 3. They are famous from visual image systems because light is not reproduced from some middle object onto the retina; it is instead predictable directly onto the retina. Retinal Direct systems, once marketed, hold out the promise of extreme privacy when computing work is done in public places because most inquiring relies on viewing the same light as the person who is reasonably viewing the screen, and retinal direct systems send light only into the pupils of their future viewer.

Fig. 3. Retinal Display



C. SYNAPTIC INTERFACE:

Synaptic Boundary screen less video does not use light at all. Visual information completely bypasses the eye and is communicated right to the brain. While such systems have yet to be executed in humans, success has been achieved in sample usable video signals from the biological eyes of a living talisman crab through their optic nerves, and in sending video signals from electronic cameras into the beings' brains using the same method as showed in figure 4.



Fig.4. Synaptic Interface

II. THE WORKING PRINCIPLE:

There are several original emergent ways for the technical growth of the working principle of the screen less displays. Some software's are merging for the GEN-X wonder view. Any CPU system that can run the mudoc software can present text that has been set in interactive movable type. Most of the mudocs that are consumed in the next few years will be consumed with conventional personal computers, e-book readers, and other kinds of display and projection devices that are now in use. Very soon it appears to be a new kind of input/output system will help statement and interaction between the computer and the computer user. This new human/computer interface is the telereader terminal. Visual Image is a bitmap management and composition product. Bitmaps can be operated self-sufficiently, in the Image Mode or multiple bitmaps can be composited Together in the Object Mode to create a "collage". Visual Image can create and Work images of any size: the only control is the amount of memory resources your system has.

VIRTUAL RETINAL DISPLAY STRUCTURE AND IMPLEMENTATION:

A virtual retinal display (VRD), also known as a Retinal scan display (RSD), is a new display knowledge that draws a raster display (like a television) directly onto the retina of the eye. The operator sees what appears to be a conservative show variable in space in front of them. Like systems have been made by proud a defocused image right in front of the user's eye on a small "screen", usually in the form of large sunglasses. The user efforts their eyes on the background, where the screen appeared to be floating. The drawback of these systems was the incomplete area covered by the "screen", the high weight of the small televisions used to project the display, and the fact that the image would appear focused only if the user was focusing at a specific "depth". Incomplete brightness made them useful only in indoor settings as well. Only lately, a number of developments have made a true VRD system in practice. In exact, the increasing of high-brightness LEDs have made the presentations

Lively enough to be used during the day and adaptive optics have allowed systems to dynamically correct for wrongdoings in the eye. The result is a high- resolution screen less display with excellent color range and brilliance, far better than the best TV skills.

III. APPLICATIONS OF THE SCREENLESS DISPLAY:

The main use of the screen less displays are used for the growth of the mobile phones which are mainly used by the old and unsighted people as this type of the creation of the screen less displays was first done on the mobile phone named OWASYS 2CC. This model is very useful for the old, blind, and even for the people with less dream power. Hologram projection is a result of a technological revolution that honestly. Latest laser skill are also implementing the singular method of the screen less display through the company of the some 3D scope animation or the screen provides the advantage of being united with the Laser Valve Video Projector that helps in proud video images by the use of the laser light instead of the Xenon Arc lamps as depicted in figure 5.



Fig.5. Example view of holographic Projection

Laser skills have given an edge over the other technologies as the LVP gives the projector an excellent depth in the focus. Screen less display's major working principle can also be implemented in the developing of the new screen less TV's. Imagine that watching the TV picture that seems to be strangely looking in the thin air. The image just floats on in front of the viewer; this would be a latest developing skill in the upcoming as depicted in fig 6.



6. Magical display in air

IV. ADVANTAGES OF SCREEN-LESS DISPLAY:

The current section discusses various advantages of screen-less show knowledge. 3D pictures can be built and created in Screen-less display technology.

Images of any size can be making and edited. It provides high quality and large position of views. It requires light weight hardware and it provides better portability. Power requirement is also reduced. Positive and better contrast images are formed. It has ability to present far point images. There is high color truth and resolution.

DISADVANTAGES OF SCREEN-LESS DISPLAY:

All has its own advantages and disadvantages. Screen-less display knowledge has also got some drawbacks. It's one of the major drawbacks is non-affordability due to high Cost per unit. Another disadvantage is its non- availability in major number as it is still under growth. The VRD is still under progress and Development.

V.FUTURE ENHANCEMENT:

For the future development of this developing new technology, a lot of research is going on and the several famous IT sector companies and labs present in the world are handling over the project of screen-less displays. Some of them are given as follows:

- Cool Google is developing the compact video camera which films everything the wearer looks at and it directly sends the information to the glasses hence there is no need of any screen or projector.
- Multi touch is a human computer interaction technique and the hard-wires devices which allow the users to compute without unoriginal input devices.
- Japanese scientists have discovered the pair of quick Glasses that remembers where people last saw their items like: - keys, Handbags, laptops, and cell phones.
- Some laboratories are working under progress on the electron beam lithography which includes the advanced improvement of the innovative screen less display.
- Adobe systems are also working on development and arrangement cross stage of the several applications which are to be viewed without the real screen.

VI.CONCLUSION:

The paper has attractively discussed screen less displays which is one of the most developing CPU skills and has become a new exciting rage for the upcoming generations as a field of the innovative skill. Due to the ability of having several compensations which are involved in the making, designing, coding of the screen less, this needs plenty of information and process for the development is still under the development. May be in the upcoming the world

may be dominated with the screen less display skills and this augments the world of technological empowerment in the field of the computer technology. Screen less displays promises the cost effective aspect and also brighter future in the technology is constantly improving, it shows the great developments that humans are making every day in the field of skill. Screen-less displays look ready to start a generation in the lineage of projections, and that generation is the screen-less generation.

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