

Why use the ICATCHER™ ?

ICATCHER provides the most cost effective and easy to use immersive stereoscopic 3D experience on a **large display** with **single or multiple screens**. Rather than just looking at a flat computer screen you are **immersed in the digital environment** and **objects float** in front of the screen. The capability to **interact within the environment** makes you a participant in the 3D application, not merely an observer.



Key Benefits

- **VR software** that scales and can be **shared easily to the outside world**.
- **Low cost** high quality **stereoscopic 3D**.
- **Reliable and easy** to set up and maintain.
- Heightened sense of **realism and immersion**.
- Multiple people can **share the stereo experience** and collaborate.
- **Superior image quality** with up to **1280x1024** resolution and **3,000 ANSI** Lumens brightness.
- **View full scale of models** such as cars, buildings, machinery etc.
- **Sensory interaction** optional through the use of data gloves and motion tracking.
- **Perspective viewing** through passive stereoscopic technique.
- **Rear projection standard** with optional front projection.
- Includes **all features** and functions of **EON Immersive** VR authoring environment.
- **Silent projector** at 28 db.
- **Dynamic Anti-aliasing** for outstanding visual quality.

"For over two years now, the Iowa Design Institute at the University of Iowa has been doing research using a multi wall Virtual Reality (VR) environment. With the EON family of products, we have created an immersive VR room where objects float in space, and where users interact with these objects using a number of VR devices.

The result has been incredible! We have achieved a system that looks better than more expensive Unix based systems. The quality is fantastic even when compared on a technical item by item level. EON software has allowed the synchronization of a number of PC's and has enabled us to rapidly develop military, medical, and industrial applications.

As someone who has worked in the field of modeling and simulation for more than 12 years, I am pleased to tell you that EON has made a very positive impact on our research."

Karim Malek, Ph.D., Professor of Mechanical and Industrial Engineering
Director, Iowa Design Institute

Easy, Fast, Reliable and Intuitive Real-Time Interaction

What is the ICATCHER™?

ICATCHER is an **immersive stereoscopic turnkey display solution** that uses standard LCD or DLP projectors together with EON Software. The system allows for **intuitive, real-time interaction** with front or rear projected single or multiple screens with realistic 3D imagery that is responsive to the user's actions and can display multiple objects or a full environment.

Features

- **EON software** and Stereo **3D Converter supports** a standard frame sequential stereo monitor signal from all types of sources.
- **Compatibility** with a wide range of Virtual Reality peripherals such as data gloves, Head Mounted Displays (HMD), motion tracking systems, joysticks etc.
- **Expands the scope and functionality** of a desktop or web based EON 3D application.
- **Cost effective** single or multi channel application via the use of cluster visualization, a proprietary EON technology that enables multi-channel display systems using ordinary PC's.
- **Fully integrated** with the EON software product family.



Triple Screen ICATCHER Presentation

Application Areas

- **Product development:** collaborative design reviews and virtual showrooms.
- **Architecture:** collaborative design reviews, walktroughs and presentations.
- **Training:** training for service and maintenance.
- **Marketing:** exhibitions, event-marketing and showrooms.
- **R&D:** presentation of scientific visualization data.

"EON provides us with the ability to deploy the same application over the Internet or in advanced Immersive display systems such as the ICATCHER Solution."

David J. Brotman, FAIA Vice Chairman
RTKL Associates, Inc.

How it Works

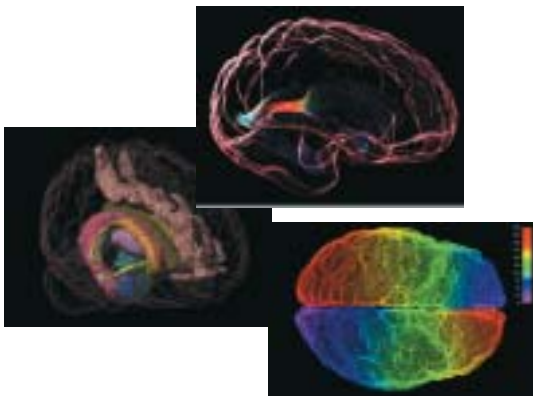
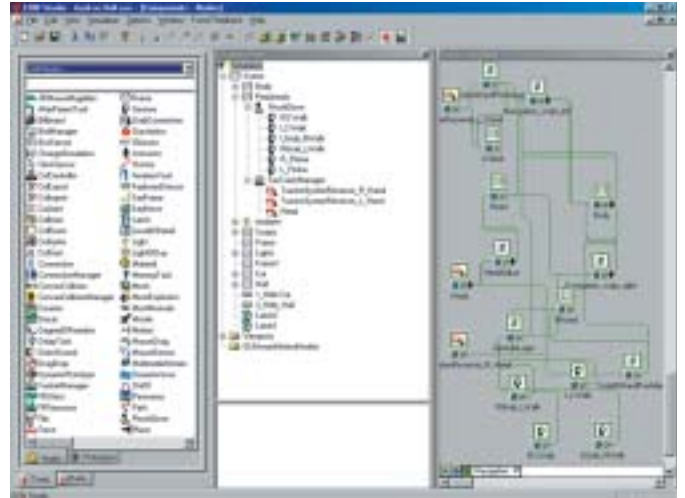
ICATCHER System Overview

EON software is used to **display an interactive 3D model from a standard CAD or 3D modeling software** in Quadbuffer stereo mode. The xpo Stereo Converter converts the incoming stereo 3D signal to two monitor signals, one monitor signal for the right eye and one for the left eye. The signals are then routed to two projectors, which are stacked and project images in register. To attain a 3D effect, a polarized filter is fitted in front of the lens on each projector, and the images are projected on a non-depolarizing soft silver 3D screen and are viewed through polarized 3D glasses. ICATCHER uses no mirrors to preserve brightness and provide a more robust system.



EON Immersive Software

- **Easy to use** graphical authoring tool allowing non-programmers to add complex interactive effects.
- **Easy import** of most generic CAD and 3D formats, allowing easy use and manipulation of objects and textures from a wide range of 3D modeling tools.
- **Pre-programmed interactive node functionality** that minimizes development time for new applications.
- **Graphical User Interface based web publisher** that makes it easier to embed EON applications with rich communication to web pages.
- **High rendering quality** - EON offers a superb visual quality incl. support for lightmaps and anti-aliasing.
- **Easily integrated** with other standard software.
- **Multi user environment**, several people can share the experience and collaborate.
- **Sensory interaction** through the use of data gloves, motion tracking and force feedback devices.
- **Perspective viewing** control through stereoscopic software settings.
- **Supports high quality quadbuffer stereo.**



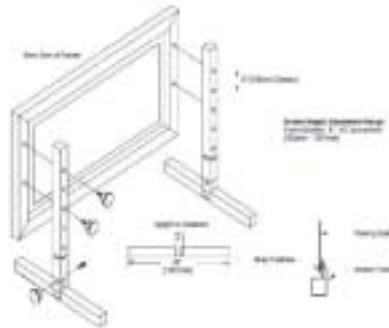
"The ease of use and intuitive nature of EON Software has allowed its seamless integration into our production pipeline for 3D high resolution visualization of brain imaging data."

John Bacheller, Director of Scientific Visualization, UCLA School of Medicine

ICATCHER is offered in the following standard configurations:

- Single Screen: 6' x 8' (feet) viewing area
- Dual Screen: 6' x 15' (feet) viewing area
- Triple Screen: 6' x 22' (feet) viewing area

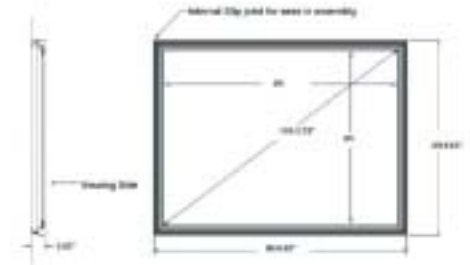
Customized screen sizes and configurations with additional screens are also available. Rear projected systems are recommended in most situations. Minimum depth required is 8'. Rear projection screens are placed on the floor using T-stand frames.



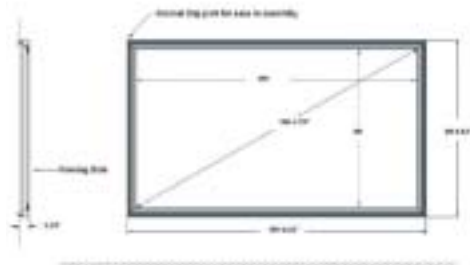
Screen Mounts



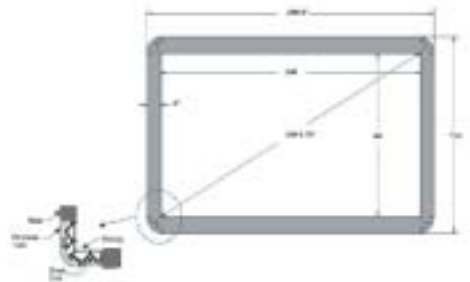
Dual Screen Edge Blended Rear Projection Display Showing Blendzone



Single Screen



Dual Screen



Triple Screen

Integrated System Customers:

- Bechtel
- Cornell University
- HON/Allsteel
- Korea Power
- Maytag
- Norfolk State University
- Temasek Polytechnic
- UCLA
- University of Iowa
- University of Manitoba
- University of Montreal
- University of Pennsylvania