



Hyper-Reality

Categories 1, 2, 3 & 4



3DInternet.com

MOVING THE WORLD TO ANOTHER DIMENSION

Table of Contents

Hyper-Reality	3
❖ Hyper-Realism	5
❖ Training & Certification Modes	6
❖ Administrative Control & Database Connectivity	7
❖ User Modes	8
❖ SCORM Deployment	9
❖ Contact	9

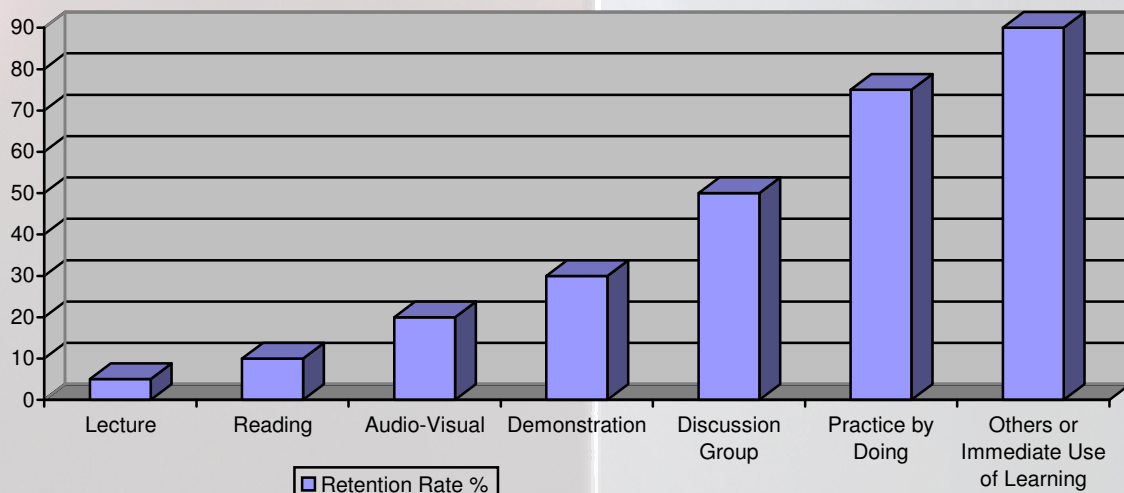
Hyper-Reality

***Hyper-Reality addresses the needs of categories 1, 2, 3 & 4**

The Hyper-Reality platform is 3DInternet's proprietary simulation technology. Our extensive research and development into the most effective ways to train military personnel, existing employees as well as new employees, has proven to have the highest learning retention rate of all teaching methodologies. 3D virtual environments running on the Hyper-Reality platform are visually stunning and engage a user like no other medium can. Our virtual worlds provide a safe environment where employees can be trained on work practices and procedures without causing injury to themselves or co-workers, and without damaging equipment.

Our technology works with all internet enabled devices such as personal computers, apple Macintosh systems, laptops and even mobile devices such as personal digital assistants and smart phones. Our philosophy of "One World, Many Interfaces" will allow people of all backgrounds and sectors across the globe, to meet and collaborate online like never before.

Inside a Hyper-Reality based virtual world, a user sees and hears what he / she will experience while performing a job duty in real life. This clearly has advantages over traditional teaching methods. When a human being is introduced to something new or even something that is known but has not been visited by the mind over a span of several years, this new knowledge is inserted into a person's temporary memory or "short term memory". Through the use of Hyper-Reality simulation technology, this short-term knowledge can transition into a person's long-term memory where it is much more effectively used.



Source: National Training Laboratories, Bethel, Maine

Training simulators built using the Hyper-Reality platform are an effective medium to deliver rich and engaging specialized knowledge and skills to trainees. Hyper-Reality is at the pinnacle of computer based training software and offers the following benefits:

- Very cost effective
- Highly engaging training medium
- Unlimited number of users can be trained
- Greatest level of retention out of all teaching / training methodologies
- Highly realistic both visually and functionally
- Enjoyable and fun to use
- Fully SCORM and AICC conformant
- Full database connectivity for storing / retrieving user actions within simulators
- Real-time physics engine for simulating projectiles, collisions, rigid-body dynamics, explosions and other physical phenomena
- Provides a challenging and rewarding experience for the end-user
- Advanced algorithms to monitor user progress and provide appropriate feedback to further user learning and retention
- Connect to other video sources such as webcams
- Built-in voice processing algorithms
- Built-in 3D spatial sound allows for more realistic simulations
- Multi-user functionality means that trainees can coordinate their efforts without being in the same physical environment. For example: A trainee in Afghanistan can be training along side a soldier located in Arlington, Virginia

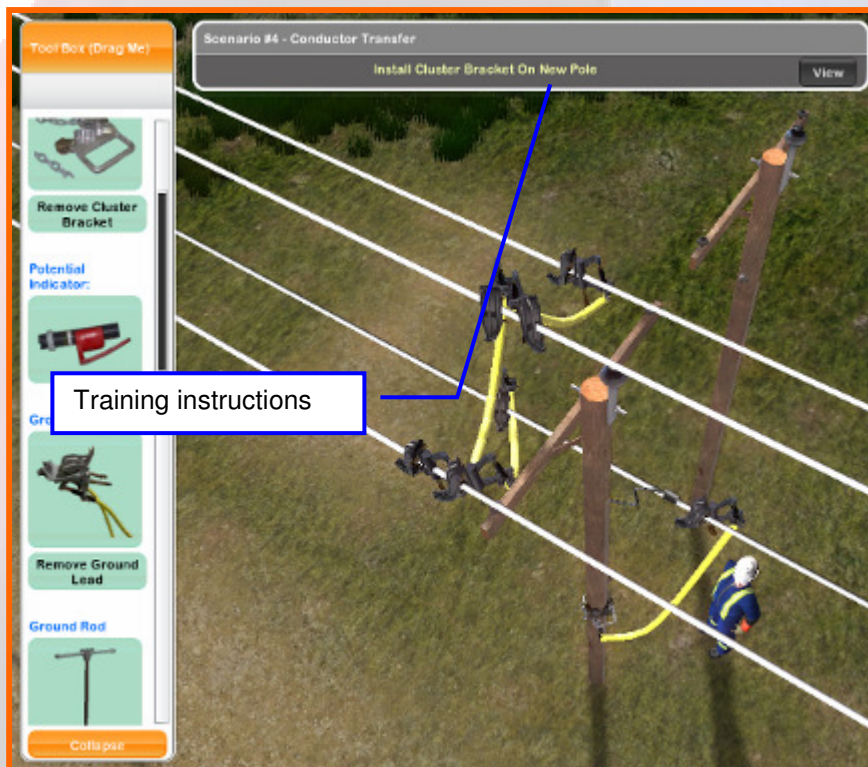
■ Hyper-Realism

The Hyper-Reality platform is the best in class and is equipped with the most advanced rendering engine on the face of the planet. It makes the virtual world appear so real you may be tempted to reach out and touch it! Advanced features of today's 3D graphics cards are exploited to provide efficient and highly realistic 3D object visualization. Advanced rendering shaders are able to simulate materials in a highly realistic manner. These include rough surfaces, smooth surfaces, metal, plastic, and organic materials. Coupled with this is an equally impressive real-time physics engine, which is able to simulate explosions, projectiles, collisions, object velocity / acceleration, friction and dynamic weather conditions. So what does all this technical information and jargon really mean to YOU? In short, Hyper-Reality allows the fabrication of a virtual training environments that are so real, they blur the line separating what is real from what is not, and then makes that line disappear altogether!



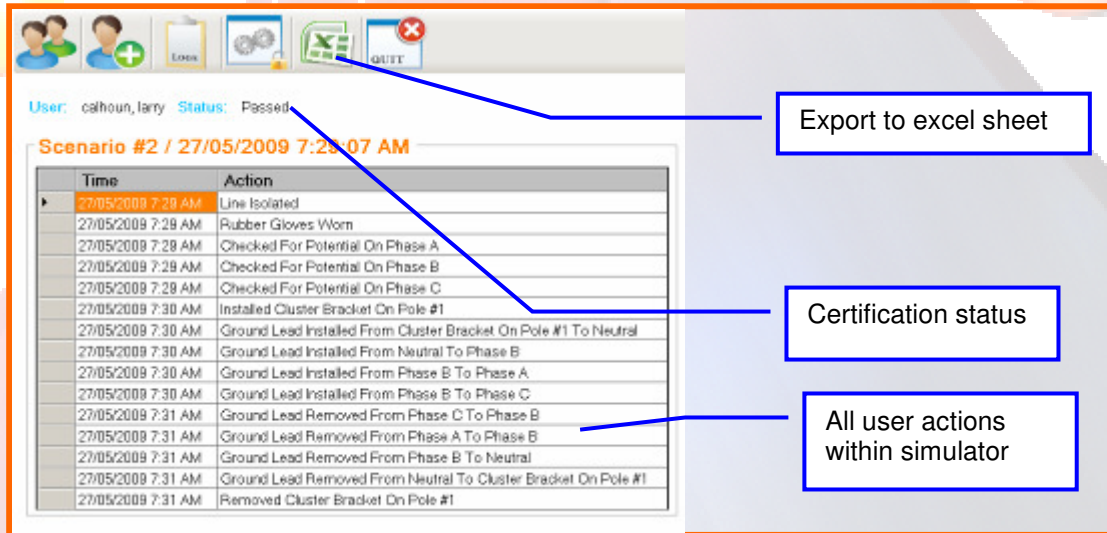
■ Training & Certification Modes

Hyper-Reality based simulations can be developed to execute in “training mode” and “certification mode”. Training mode allows for “user prompting”. In this mode, the simulation is guiding the student on what is considered to be right and what is considered to be following a correct procedure. This gives the user the opportunity to “learn” the task at hand. In contrast “certification mode” provides the opportunity for a student to test themselves on what they have learned and what areas of the curriculum need to be re-visited for a better understanding. In this mode there is no prompting at all, and the user is simply provided an objective for what is required of them. All user actions can be routed to a remote database for later viewing by administrators and instructors. This is an effective way to keep track of which students are progressing well, and which students require additional help with certain concepts and principles.



■ Administrative Control & Database Connectivity

Any Hyper-Reality based simulation can include a full backend administrative graphical user interface system. The administrator can add users as well as keep track of which users are progressing well in their training and which users require additional instruction on certain topics. During a certification exercise, all user actions are routed into remote database(s) using the same HTTP channels as a web browser. This ensures that firewalls do not block database connectivity which is crucial for storing any and all relevant information.



User: calhoun, larry Status: Passed

Scenario #2 / 27/05/2009 7:28:07 AM

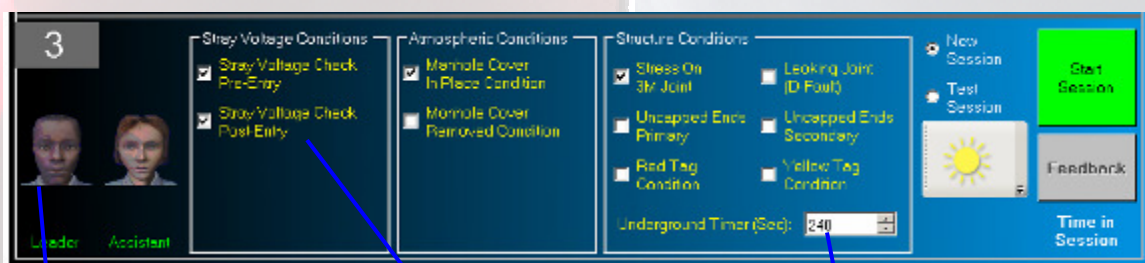
Time	Action
27/05/2009 7:28 AM	Line Isolated
27/05/2009 7:29 AM	Rubber Gloves Worn
27/05/2009 7:29 AM	Checked For Potential On Phase A
27/05/2009 7:29 AM	Checked For Potential On Phase B
27/05/2009 7:29 AM	Checked For Potential On Phase C
27/05/2009 7:30 AM	Installed Cluster Bracket On Pole #1
27/05/2009 7:30 AM	Ground Lead Installed From Cluster Bracket On Pole #1 To Neutral
27/05/2009 7:30 AM	Ground Lead Installed From Neutral To Phase B
27/05/2009 7:30 AM	Ground Lead Installed From Phase B To Phase A
27/05/2009 7:30 AM	Ground Lead Installed From Phase B To Phase C
27/05/2009 7:31 AM	Ground Lead Removed From Phase C To Phase B
27/05/2009 7:31 AM	Ground Lead Removed From Phase A To Phase B
27/05/2009 7:31 AM	Ground Lead Removed From Phase B To Neutral
27/05/2009 7:31 AM	Ground Lead Removed From Neutral To Cluster Bracket On Pole #1
27/05/2009 7:31 AM	Removed Cluster Bracket On Pole #1

Export to excel sheet

Certification status

All user actions within simulator

Administrators can also set the initial conditions for a simulation. In the example below, the administrator is able to configure the conditions for a multi-user atmospheric testing simulator.



3

Stray Voltage Conditions

- ☒ Stray Voltage Check Pre-Entry
- ☒ Stray Voltage Check Post Entry

Atmospheric Conditions

- ☒ Manhole Cover In Place Condition
- ☐ Manhole Cover Retracted Condition

Structure Conditions

- ☒ Stress On 3rd Joint
- ☐ Leaking Joint (D Fault)
- ☐ Unsecured Ends Primary
- ☐ Unsecured Ends Secondary
- ☐ Red Tag Condition
- ☐ Yellow Tag Condition

Underground Timer (Sec): 240

New Session

Test Session

Start Session

Feedback

Time in Session

Leader Assistant

Administrator can select user avatars

Set stray voltage conditions on manhole cover

Set structural conditions. An explosion will occur if worker is inside manhole for more than 240 seconds

■ User Modes

Hyper-Reality's 3D collaboration capabilities provide additional enhancements to 3D training simulators. Traditionally 3D simulators have operated in a single-user mode. In this mode there is only one "virtual student" inside the virtual world. Other virtual avatars are controlled by the computer using a sophisticated A.I or artificial intelligence algorithms.

Additional user modes are permitted and can be developed as an option. These include multi-user mode and massively multi-user online mode or MMO mode. A vast number of job duties and procedures require several students to coordinate their actions as a team. Under these circumstances, a multi-user simulator can prove to be more desirable. Each student comprising the team will require their own dedicated system. Upon entering the Hyper-Reality virtual world, each student will be able to see themselves and everyone else as virtual 3D representations known as "avatars". These avatars look and behave just like people in everyday real life, and are fully controllable by "you" the user.



■ SCORM Deployment

Hyper-Reality based simulators can be deployed as SCORM packages as well as other more traditional type deployments such as Stand-alone application files, or MSI files. All versions of SCORM are supported and can be easily targeted. These include SCORM 1.2, 1.3 or 2004 (2nd and 3rd edition) ZIP packages with manifest files. SCORM packages can then be imported into any SCORM Conformant Learning Management System. Hyper-Reality also supports AICC deployment.

■ Contact

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