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Immersive Environment Development for Training: Opportunities for Cooperation, Coordination, and Cost Savings

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Immersive environments are increasingly demonstrating their utility for a number of nuclear safeguards, nuclear safety, and nuclear and physical security applications. Although training is an obvious use, the immersive (or sometimes called virtual) environment allows the user to “visit” nuclear facilities and sites that might have access restrictions because of security, high radiation or other hazards; are difficult and expensive to visit. An immersive environment can also be reconfigured to study various scenarios, processes, and other what-if situations, which can aid planning and design of new facilities or evaluate safeguards, safety and/or security measures before they are implemented. As the International Atomic Energy Agency, other international organizations, State Authorities, industry, and academia continue development and use of immersive environments and other electronic training technologies, more and more applications can be envisioned. Immersive environments are not a direct or always a desirable replacement for hands-on learning; however, the demand for electronic training media, particularly immersive environments, will grow. The resulting increase of system features and libraries presents opportunities to shorten development time frames, reduce costs and increase availability of immersive environments for a wider audience looking to balance the need for quality training with limited resources. Substantial time and cost savings can be realized by the sharing of raw assets among developers and organizations. This paper will explore potential guidelines, criteria, and mechanisms for such cooperation, including a prototype asset repository website.

Country or International Organization

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