

# Other Industries Embrace 3D Training, Why Not Pulp and Paper?

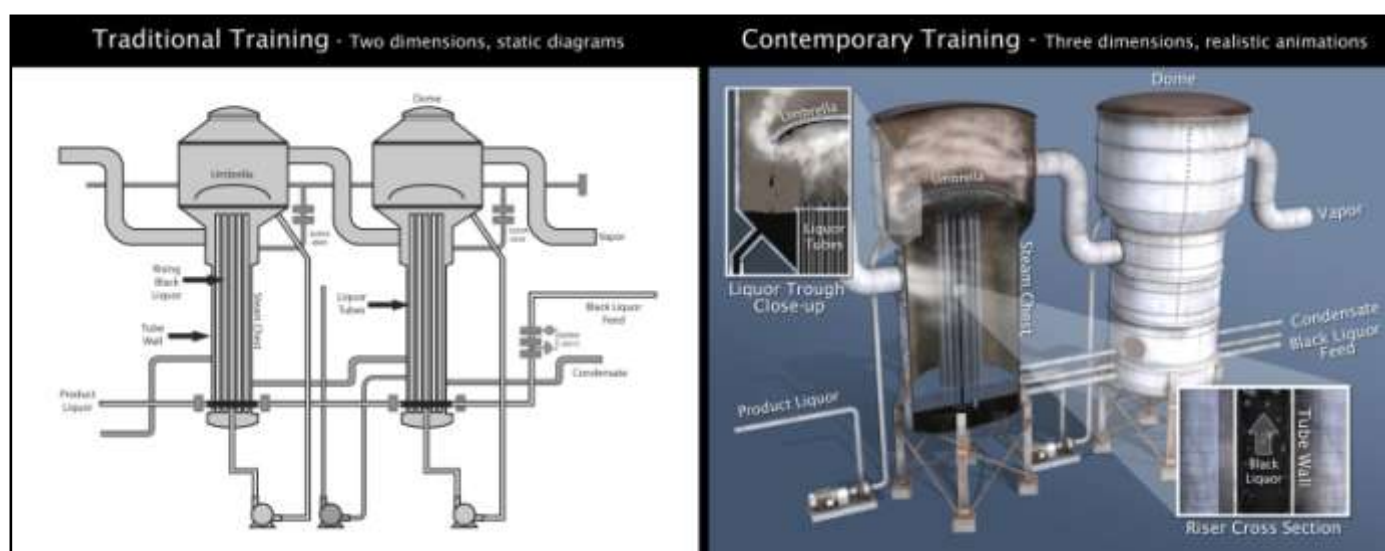
By Roman Battan, Capstone Technology

Surgeons, dentists, airlines, and the US military are all using 3D models and animations to train their next generation of workers. Will pulp and paper producers be the next industry to leverage this new technology to gain a competitive advantage?

## The Old Training Standard

Over the last 50 years, mill equipment and processes have evolved to become faster, more efficient, and more consistent while the development of workforce training techniques has remained relatively unchanged. Many organizations still rely on classroom sessions and outdated manuals as the primary means to transfer knowledge from experienced employees to new or inexperienced workers. This method however can be highly inefficient and often lacks consistency (different instructors, different techniques, etc).

In an attempt to increase consistency, facilities are integrating computer-based training (CBT) into their learning process. The most common CBT format is the self-paced, slide presentation that contains images, possibly audio narration, and read-along text. Message consistency is increased in this case, but knowledge retention and employee engagement is often reduced due to a lack of visual stimulation and user interactivity. Fortunately, with the latest advances in computing power and software development, CBT programs are well positioned for a major upgrade.



## The New Training Standard

Redesigning mill training courses to incorporate 3D models and animations is an important transition to consider. Although static photographs and diagrams are useful supplements, they often lack the ability to effectively illustrate the functions of equipment in a self-paced environment. Nadine Grass, Training Coordinator at a mill located in Oregon states that, “[3D training content is most appropriate when] describing and introducing new equipment or processes, when it is difficult or impossible to see the internal workings of equipment [or when it is difficult or impossible] to clearly describe the process.”

By incorporating 3D equipment models and animations into a mill training program, employees can make a direct visual connection between the training they receive and the machinery they work with on a daily basis. Incorporating detailed graphics in time-based learning sequences which depict internal machine functions, floor layouts, key locations, equipment size and scale, and auxiliary systems have become the new standard in site-specific CBT development.

## Components of Effective Training

An effective CBT program is not solely dependent on 3D modeling alone. Another component to consider is the instructional design of the training and the flow of information relative to the models and animations. According to Kenny Della Valle, Production Manager at Convergence Training, “It is essential to present 3D training content dynamically to keep the learner engaged. This means properly synchronizing the 3D animations with onscreen graphics, text, and audio narrations in a way that delivers a clear, unambiguous message.” Presenting even the best 3D image without properly timed audio, purposeful camera movements, and onscreen highlighting of particular components can be just as ineffective as a static photograph. Using 3D modeling to enhance training is optimal, but it is important to keep in mind that instructional design is an almost equally vital component of any CBT program.

To stay competitive and ensure long-term viability in the future, mills should be allocating more funding and resources to their training departments today. By investing in better training software, utilizing 3D models and animations, and building CBT programs with proper instructional design, pulp and paper producers will be better positioned to usher in the next generation of the pulp and paper workforce.