Develop Training Scheme for Industrial Gas Plants

Overview
The challenge of this project was to upgrade Solutionwerks Inc. current PowerPoint training slides that are used to train cryogenic industrial gas plant operators, maintenance personnel, and management. The current slides are very thorough on the processes involved and the equipment within the plant. However, they are wordy and require the trainee to use a lot of imagination to understand how the equipment operates since only still pictures are used. The task we faced was to animate the major plant components in this training module, allowing the trainees to easily understand the material while holding their attention.

Objectives
To improve the existing training Power Point by creating an animated tutorial of a cryogenic air separation plant and its key components. The final presentation should provide an engaging training to new technicians and current management.

Approach
• Meet with Solutionwerks at their office in Allentown to assess their requirements.
• Research different animation and modelling software.
• Research the cryogenic plant system.
• Build overall model of plant and components of plant in Solidworks.
• Use Solidworks to animate the models in 3D to show parts of components.
• Hold weekly visits with the sponsors to get feedback on the videos and generate ideas.
• Use different animation software such as Adobe Premier to create a 2D fluid flow video
• Organize the videos into a program that grasps the user's attention, while being easy to follow.
• Receive constant feedback from sponsors and classmates at different meetings.

Outcomes
• New 3D and 2D animations will better grasp the attention of the technician learning the concepts of a cryogenic distillation plant
• Replacing paragraphs with animations and pictures
• Organized in an interactive platform that allows the user to click on the components where they want to learn about the plant.