

# New Film Scanner Build to Preserve Cinematic History

April 19, 2013 - With the goal of stemming the decay of historically significant films, Advanced Film Capture today announce the development of a new breed of film scanner, gentle enough for delicate film.

Across the United States, several million feet of film slowly degrade in film vaults. Many of these films are too fragile, or in the case of cellulose nitrate film, too dangerous to transport. When cellulose nitrate film starts to decompose, it becomes unstable and releases poisonous, flammable gasses. Unless these films are digitally preserved, the world will lose them forever.

Not wanting to squander this treasure trove of cinematic history, the team at Advanced Film Capture pushes to develop a mobile film scanner gentle enough to handle even the most delicate films.

“This is a labor of love, really,” co-founder and CEO, Jack Norton affirms. “These films represent a rich part of history that deserves to be studied for generations. Once the films are digitized, they will last virtually forever.”

A typical film scanner uses the sprocket holes in 8mm, 16mm, and 35mm film to advance from one frame to the next, which can tear or damage brittle film. Instead, AFCs design uses rubber rollers, specially designed to minimize tension, to advance the film, reducing the risk of damage.

Other safety measures include a bath to clean the film while it's on the scanning table. Combining the cleaning with the scanning reduces the number of times that the film is threaded through a machine.

Moving past a lamp house, a red, green and blue light illuminates the film at different exposures to bring out the full dynamic range of the film. A highly sensitive camera takes a picture of all three color channels. Custom software stitches the three images together to produce a high definition image containing the full-color range of the source film.

“With the high-speed cameras we're using,” Norton continues, “we're able to capture the film almost at real-time.” In this context, “real-time” refers to the normal run speed of film, which is 24 frames a second.

By making the scanner mobile, the team plans to temporarily install the scanners at the vaults that house the films, eliminating the need to transport these fragile artifacts.

Advanced Film Capture is a startup film-scanning company that focuses on preserving archival film. In the United States alone, millions of feet of historical film rot in film vaults. Worldwide, there may be billions of feet of film that need to be preserved. Advanced Film Capture's mission is to protect our cinematic history. The company is currently looking to secure angel investors to finish the production of the prototype machine.