

# Best Practices in Short Animation Production in Private/Public Partnerships: An Agile Approach

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Since 2004, Seneca College in Toronto, Canada, has partnered with animation production studios and government agencies to produce a number of highly successful short animated films directed by A-list directors. Beginning with Chris Landreth's Academy Award winning film *Ryan*, The National Film Board of Canada (NFB) and Copperheart Productions worked with Seneca in developing a production management method that leveraged the strengths of each organization by making the economics of the production manageable for each partner while simultaneously delivering unique benefits to each.

Out of this model Seneca created its Production Project in Animation Summer Institute, a graduate-level single semester specialty program that brings together recent graduates from animation programs with professional studios and public funders to support the production of short films of high quality that go onto distribution and festival circuit success. Since the creation of this Summer Institute, Seneca has partnered on films such as *The Spine* (NFB, 2008), *Ormie* (ARC Productions, 2010), *Lovebirds* (ARC Productions, unreleased), *Drawing from Life* (NFB, 2010), and *In Search of Blind Joe Death: The Story of John Fahey* (Tamarak Productions, 2012).

In 2013, the NFB will release *Subconscious Password*, the third Chris Landreth collaboration between The National Film Board of Canada, Copperheart Productions, and Seneca College. Throughout the production Seneca had fifteen students participate in areas of concept design, modeling, texturing, animation, rigging, lighting and compositing as well as pipeline development; and five college professors working in the areas of character design supervision, lighting and rendering supervision, animation supervision, effects supervision, pipeline development and compositing supervision. The NFB provided senior artists to help with rigging, texturing, animation, lighting and effects, as well as technical support at the Montreal location. Copperheart provided additional production support in the way of audio recording and mastering, and live action sequence production.

With *Subconscious Password*, there were unique challenges that required that each of the partners break new ground. These challenges were outside the scope of creative work, and were more about infrastructure, networking, file transfer/management, and studio space:

1. The animation crew was split over two locations in Toronto and Montreal, demanding a high-speed network and efficient synchronized pipeline be used. Here, Seneca was able to leverage use of the CANARIE network, a high performance hybrid network that supports data-intensive research and innovation across a range of private and public sector users. This network enabled the project to transfer files at up to 600 Mbps.



Figure 1: Still from *Subconscious Password* (Copyright National Film Board of Canada)

2. Rendering was also distributed across the two remote locations. Here, Seneca developed a specific pipeline to anticipate problems that would occur at render. Once animation was finished, nCloth and Hair simulations were run, and the characters were GEO Cached out to render scenes. Every shot was entirely rebuilt in lighting and rendering. This allowed us to work in parallel on look development as animation was ongoing, and also ensured that we would not be rendering full character rigs. All render layers, Mattes, light rigs, and pass contribution maps were also scripted. The process of rebuilding a shot in lighting was streamlined to take about 20 minutes per shot.
3. This new film was stereoscopic, a first for Chris Landreth and Seneca, requiring additional considerations be built into the pipeline.

The production pipeline was built as the partners worked through the film, as there was not adequate time or resources to develop the pipeline prior to starting, reflecting an Agile Development model of production execution.

The talk will present the methods in which the production used an Agile approach to execution, along with the innovations implemented in terms of network and render pipeline creation. Finally, the presenters will review the business and organizational model used in the Seneca Animation Summer Institute Program as a best practice for production partnerships between education, industry, and government.