

Film Inquiry

Submission No. 16.....

Dear Sir/Madam,

Please consider this a submission for the inquiry into the future opportunities for Australia's film, animation, special effects and electronic games industries.

I am an Australian digital artist currently working on feature films at Digital Domain in Los Angeles in the United States. I am also a doctoral graduand from the University of Sydney. My PhD research concerned the design of immersive environments involving integrated 3D music and 3D computer graphics. I have been involved in computer graphics professionally in Melbourne and Sydney since 1995. I taught the subject at the Australian Film Television and Radio School in 1998.

It has long been of concern to me that Australia's computer graphics, animation and special effects industries have been compromised by a lack of technical culture. Traditionally people have come into the industry after having taught themselves a particular software package one way or another in a top down approach. This is in contrast to the highly organised and technically intensive nature of dedicated computer graphics education in the United States.

Education in the area of computer effects and animation in Australia has traditionally been compromised by departments and teachers that lack any real technical understanding of computer graphics. Technical courses at RMIT and UTS do exist, but they are not organised or funded anywhere near as well as the TAFE and AFTRS courses. They are also not offered for the same duration as the TAFE or AFTRS courses - being rather units in a computer science degree, rather than entire courses that also embrace artistic outcomes. In the United States, there are dedicated four year degrees in computer graphics that marry technical know-how with creative outcomes. In Australia, the TAFE and AFTRS courses are predominately top down style courses. Students are not taught the rudiments of computer graphics, but are rather taught to navigate the idiosyncracies of a particular software package.

The lack of technical know how in Australian effects and animation culture has been compounded by the influence of corporations that have products of limited applicability, but superior marketing power. In a culture where few have a clue, the marketing and sponsorship power of

giant US corporations such as Alias/Wavefront and it's parent company Silicon Graphics has led to a situation where all major computer graphics festivals, online communities, and education courses in Australia focus on these hardware/software combinations. In contrast, the technical courses - such as that at UTS - have tended to teach a pure form of computer graphics using the more powerful Houdini 3D effects software.

Alias Wavefront animation products are designed on the premise that animators lack any technical understanding of computer graphics. It is in the interest of these companies to

perpetuate a situation where this is the case. Their major product, Maya, consists of multiple high level tools of limited flexibility. In contrast, the Houdini software consists of fewer low level modules of extreme flexibility. The Alias Wavefront presumption of user idiocy and a lack of technical understanding amongst Australian effects and animation artists hamstring the ability of Australian companies to realise ideas for which there is no existing dedicated tool in the Maya software. In feature film production these shots inevitably get farmed off to a major Houdini using effects house in Los Angeles - such as Digital Domain where I am currently employed, or Sony Pictures Imageworks. Australia still lacks the technical know how required to create a foaming river of charging horses - as in the first Lord of the Rings film for instance. Digital Domain had to complete this shot using Houdini.

The marketing successes of Alias Wavefront permeates Australian effects culture. In vernacular thinking, Maya is the best 3D animation software

- and it is indeed the best tool for common character animation tasks. In Hollywood, however Houdini is still considered the creme in computer graphics effects tools. The Australian government needs to be aware that there are alternatives to Alias Wavefront and it's aggressive sponsorship of top down computer graphics education. Effect and animation courses which teach the fundamentals of computer graphics using Houdini, will put Australian industries working in digitally generated imagery in a better position to compete with other countries in the future. It is time that Australian effects and animation culture lost it's corporate sponsored technophobia.

I have spent nine years trying to teach myself computer graphics. I have used Alias/Wavefront, Softimage, 3D studio and Houdini software systems in professional settings in Melbourne and Sydney. It is frustrating for me at the age of 32 to find that after all this time I am still only as knowledgeable as fresh young graduates from four year courses at Savannah College here in the United States. Australia is a long way from competing with the level of well grounded skill these people bring to their careers and to this industry.

For your reference:

The Houdini 3D Software: <http://www.sidefx.com/>

Digital Domain home page: <http://www.d2.com/>

The Savannah College of Art and Design: <http://www.scad.edu/>

My home page: <http://www.tstex.com/>