The Future of Game Animation Fred Galpern takes a look at the progress and advances in technology are shaping the future of the quality of gaming animation.

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2005 is quickly turning into a very interesting year for game development studios. If we stretch that timeframe backward just a bit and include the holiday games of 2004, such as Doom 3 and Half-Life 2, things become even more intriguing. These games were the first of a new breed, perhaps even a renaissance. Not only did they sell very, very well and receive nearly universal acclaim, but they did so while breaking new technical ground.

Filmmakers may scoff at game developers and their fear of new technology, but they don't contend with our picky audience. Gamers demand more and more realism, usually choosing flashy technique over quality gameplay and storytelling. However, the new games are so polished and deliver such a stunning experience allaround that the rest of the industry has no choice but to mature in order to stay competitive.

In general, games are maturing but sadly, game animators are forced to work to a lower standard than their main competition, the film industry. This is mostly due to smaller budgets. Game animators also receive an unfair amount of the blame when games are negatively compared to the latest Hollywood blockbuster. There are many reasons these hardworking, talented folks are so mistreated. Game animators often have less experience than their Hollywood brethren, usually coming up through the self-trained ranks.

Mocap, which can stand out like a sore thumb in games, is often forced on developers when budgets are restrictive or realism is what the publisher demands. Mocap isn't going anywhere, but it is yielding greater results than ever before. Fortunately, all these things are beginning to change with the new games. Developers are investing in software, training and most importantly the talent to

truly compete with the big boys in Hollywood. With a whole new generation of console gaming systems set to launch between the end of 2005 and late 2006 game animators will have even more opportunities to flaunt their stuff.

Artists wear many hats at game development studios. Our pipelines are quite similar to Hollywood's, with the main distinction being more overlap between modeling/texturing and rigging/animating. Without getting too much into the niche specialties, there are concept artists, modelers, texture artists and animators. Most animators are also responsible for their own rigs, although this work is sometimes assigned to modelers. Occasionally, there is the monster that can do it all (coming from a fanboy like me, "monster" is a huge compliment), but generally these are the job divisions. Not all of these disciplines have been rewarded as much as the modeling community. Their prize, of sorts, came in the form of two new, powerful software packages. Not the usual version upgrades, but entirely new applications containing seriously amazing new functionality.

While, at first, information on modeling apps might seem out of place in an article titled, "The Future of Game Animation," further consideration lead me to highlight two modeling apps here. My reasoning for this? Well, like it or not animators are always working side by side with modelers (unless they are the aforementioned monster) and rely on them to tweak a model here and there to allow for more expressive movement. Animators may not use modeling tools every day but some of the best animators are the folks who understand the creative process from start to finish.

The best of the batch is Zbrush, my favorite new graphics app. If you are a digital artist and haven't tried Zbrush yet stop reading and try it, now! No excuses, there's even a free, downloadable demo available at www.zbrush.com. Pixologic developed Zbrush and it is truly one-of-a-kind. No other software allows you to model organically with such an immense amount of detail. Zbrush is mainly used to generate super high-resolution meshes, which can then be used to create normal maps.

Zbrush allows digital artists to model organically with an immense amount of detail and can generate high-resolution meshes, used to create normal maps. © 2005 Pixologic Inc. All rights reserved.