

Imagi International Holdings  
Limited  
(www.imagi.com.hk)

Customer Success Story

Autodesk® Maya®

"We have chosen a mature software product. Autodesk® Maya® offers an open platform on which we can develop software applications that we need and create high quality movies."

– Francis Kao  
Founder and Chief Creative Officer  
Imagi International Holdings Limited

#### About the Customer

Imagi International Holdings Limited is a listed company on the main board of the Hong Kong Stock Exchange. Imagi Studios' principal business is the development and production of CG-animated theatrical feature films. Imagi's CG production studios are located at its Chai Wan (Hong Kong) corporate headquarters with development and marketing operations based in Los Angeles, California, and an office in Tokyo.

Imagi Studios produces major CG-animated theatrical feature films by combining Hollywood storytelling with Hong Kong high-tech animation. Development and pre-production take place at Imagi's Los Angeles facility, with state-of-the-art CG animation then created in Hong Kong, followed by post-production in Hollywood. This fusion of Western and Asian creativity delivers premium entertainment that appeals to audiences around the world.

Imagi's first animation movie *Teenage Mutant Ninja Turtles* was released in March 2007, topping the U.S. weekend box office during its debut. This was the third time in history that an Asian movie had ever won that honor. *Astro Boy*, an animation movie produced by Imagi at a cost of USD65 million, is scheduled for worldwide release in October 2009.

# New Image of *Astro Boy* Returns to Big Screen

## Autodesk Assists Imagi in Reshaping the Animation Classics.



Courtesy of Imagi International Holdings Limited.

"Fly across the sky, to the remote stars. Come on! Astro Boy, a good boy who loves science." Among the numerous Japanese animation works, seldom does a role have such strong and persistent influence like Astro Boy. Since it first appeared in Captain Atom, the first science fiction comic strip of Osamu Tezuka, "God of Manga" of Japan, in 1951, this small robot became popular soon. Later, the black-and-white animation and color animation of Astro Boy were brought onto the screen and aired in more than 40 countries around the world. Astro Boy not only set the new standard for animation, but also became a superstar that was popular around the world. In October 2009, Astro Boy will make a comeback and this will be the first time for the animation character that has affected generations of people to appear on the large screen as a 3D image.

Following the great success of 3D animation movie *Teenage Mutant Ninja Turtles*, Imagi made another move to invest USD65 million in producing the 3D animation movie of *Astro Boy*. The media and entertainment solution of Autodesk Inc., a world leader in 2D and 3D digital design software, provided Imagi with highly efficient software tools. Autodesk® Maya® has played a very important role in the movie's production process including modeling, animation, special effect and action rigging.

#### Technology Improvements Allow for More Compelling Details

With the release of the 3D animation movie *Teenage Mutant Ninja Turtles* in 2007, Imagi not only proved to the world that Hong Kong animation companies

were fully capable of producing world-class movies, but also turned itself from an unknown company into the focus of the industry. Therefore, it is natural that for Imagi's new release, *Astro Boy*, people are mostly keen to find out its improvements over *Teenage Mutant Ninja Turtles*. Johnny Mak, Head of Technical Operations of Imagi, who has participated in the production of *Teenage Mutant Ninja Turtles* and *Astro Boy* during the entire process, says, "It was a tough job to produce *Teenage Mutant Ninja Turtles* because we had no mature technologies then. Now, it is much easier to produce *Astro Boy*, and the quality of many scenes in the movie has been improved. Using Autodesk® Maya®, for instance, we have created vivid effects of the leaves and grass being blown by the wind. Moreover, *Astro Boy* exceeds *Teenage Mutant Ninja Turtles* in many other aspects, including the shaking of the cloth, lighting and reflection."

The 3D movie *Astro Boy* was jointly produced by China, U.S. and Japan, making it a real "oriental-occidental mix" that integrates the classics of Japanese manga, Hollywood director and Hong Kong animation production. To tap into the international market, the *Astro Boy* in the new 3D movie differs from the *Astro Boy* in the original work in many ways: the original flat black-and-white *Astro Boy* is regarded as "the world's most vivid robot in terms of personification" in the animation, so his skin, hair and actions in the movie must be as close to reality as possible. Another major difference is that the age of *Astro Boy* has increased from 7-8 to 13-14, so most of the time he wears clothes, and this has posed a greater challenge to the production team. For instance, the clothes shall make appropriate response at times of high-speed

Autodesk®

flying and explosion. Autodesk® Maya® allows the animation designers to rapidly make adjustments as needed so that the characters may deliver compelling motion effects.

### Openness Assists in Boosting Production Efficiency

For an animation company, the research and development department holds the key to its technological potentials. Since its establishment, Imagi has formed an outstanding program development team, which has written many program plug-ins according to the needs of the production department, for instance, IMAGI Muscle (muscle system) that allows the muscles of the characters to change with their moves, IMAGI Skin (skin system) that allows the skin of the characters to present real quality and color, and IMAGI Fur (fur system), plant system and fluid simulation system, all of which are applied on the basis of Autodesk® Maya®, which has an open architecture. The integration allows Imagi to save time and achieve better effects in each step of the production process. "We have used many software products. In the end, we think that Autodesk® Maya® is very good animation software because it can run smoothly on the Linux platform and features high degree of openness, enabling the programmers to develop plug-ins to facilitate our work," said Johnny Mak.

"The software is like a pen and the key is how you use it," said Francis Kao, Founder and Chief Creative Officer of Imagi International Holdings Limited "The reason that we choose Autodesk® Maya® is that it is the most feasible software. We carried out our own development activities on the software and have created many new products. It is our trust in the software that has given us the confidence to work on our own development for 10 years."

### Presentation of tremendous force as easy as turning over the palm

In the movie, *Astro Boy* not only demonstrates magic force in the sky and on the land, but also has fierce fighting with the enemy and opposition robots. To demonstrate the powerful force of the moves of the robots, animation artists have created astounding visual effects of the moves for the action scenes of *Astro Boy* by drawing on the fighting concepts in the electronic games. When *Teenage Mutant Ninja Turtles* was produced, Imagi developed its own rigging tool, which helped alleviate the burden of the animators in producing the animation characters. However, the



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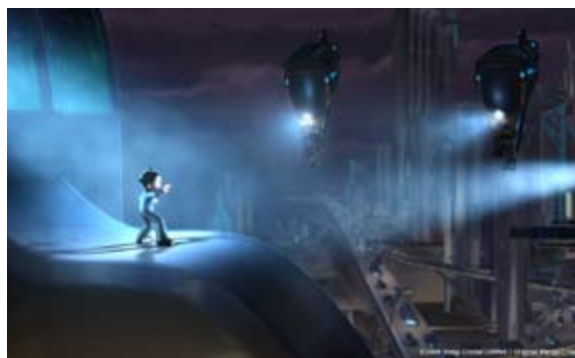
animators still needed to process the related rigged components separately when dealing with some major changes or highly complex moves. As a result it took a lot of time for them to process the bone rigging of each character. In contrast, Imagi adopted Autodesk® Maya® in the production of *Astro Boy* that allowed the animation designers to finish creating the moves of the characters in a rapid and accurate manner. Not only the moves are smooth, but also the physical simulation effects are vividly true to life.

### Build a working platform for remote collaboration

It took only no more than three years from shooting the scenes to the completion of production of *Astro Boy*. How did Imagi manage to be so efficient in finishing such a high level animation movie within such a short period of time? Apart from powerful software support and outstanding R&D capabilities, remote collaboration was one of the unique skills of Imagi. Imagi has a concept development department and a production branch in Los Angeles, where the movie director and 100 production personnel with abundant experience in Hollywood movies completed such works as scriptwriting, character and concept design. More than 400 staff members of Imagi at Chai Wan, Hong Kong finished all production work, such as modeling, animation, lighting, rendering and composition, according to the preliminary preparatory work. They communicated with each other using the advanced teleconferencing system and high-speed peer-to-peer data transmission systems. As a result of the time difference, when

it was time to finish work in Hong Kong in the afternoon, it was time to start work in Los Angeles so that they could work 24 hours in relay. Imagi staff in both Los Angeles and Hong Kong used Autodesk® Maya® as the production software, which offered a whole set of industry leading tools for creating 3D visual effects, computer graphics and character animation. Different departments form the team could choose the tools according to their actual needs that resulted in ever smoother workflow. Another advantage of Autodesk® Maya® was that many people were using it, thus making it easy for the company recruit additional professionals for the team.

With its world-class animation production, Imagi has successfully given a new life to the classic Japanese manga, the *Astro Boy*. It was the wish of Francis Kao, Founder and Chief Creative Officer of Imagi Limited, to produce high quality internationalized animation works by integrating the oriental and occidental cultures through the efforts of the Hong Kong animation professionals. Autodesk's state-of-the-art and highly efficient design tools for the media and entertainment industry and award-winning solutions specially designed for digital media production, management and delivery have covered all areas from special effect, color grading, editing, animation creation, game development and design visualization. These tools and solutions helps designers and artists turn their ideas into reality and present perfect design concepts with the best effects, and are the booster that helps the animation producers realize their dreams.



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