L.A. ACM/SIGGRAPH Presents
Tuesday, January 11, 2000

A Special Presentation of "Stuart Little"

Followed by a full screening of the movie

The Program

6:30-7:30 Doors Open
(Priority entry for members
up until 7:00)
7:30 Presentation and
Screening

The Location

The Writers Guild, 135 S.
Doheny Drive Beverly Hills, CA

Directions

From the 405 freeway exit
Wilshire East; continue east on
Wilshire to Doheny Drive. Turn
right onto Doheny.

Parking

Parking is $1.75 at the parking
lot next door to the Guild
entrance. $7 in lot across the
street.

Fees/Registration

This event is free to L.A. ACM
SIGGRAPH members and
$10 for non-members.
New members who sign up
on-site and pay the $25 annual
membership fee (checks or
cash only) do not have to pay
the $10 registration fee.

Special
Thanks to
Genny Yee

The Event

SONY PICTURES IMAGEWORKS presents the making of
"Stuart Little" Followed by a full screening of the movie

"Stuart Little" combines live action with groundbreaking
visual effects by the artists and innovators at Sony Pictures
Imageworks, who have taken digital character creation to a
bold new level with the birth of Stuart. The creation of the
film's title character and some of his friends and
adversaries represents one of the most ambitious
ventures to date into photo-real, performance-based
digital character creation.

"Stuart Little" represents a huge stride forward in the field
of digital character creation. We couldn't find a trained
mouse that could wear clothes, walk on two feet and deliver
lines, jokes executive producer Jason Clark. So we had to
come up with a way to use technology to tell the story. What
we did with "Stuart Little" wouldn't have been possible five
years ago. The challenge, however, was to use this futuristic
digital wizardry to capture the spirit of a classic character
that E.B. White created 50 years ago.

Bringing the character of "Stuart Little" to life on the big
screen involved several stages of sophisticated, painstak-
ingly detailed technical labor from the Imageworks team of
artists. Under the direction of Minkoff, Academy Award®-
winning senior visual effects supervisor John Dykstra,
animation supervisor Henry Anderson and visual effects
supervisor Jerome Chen strove toward the goal of creating a
living, breathing, three-dimensional character that exists in

"Stuart Little"

our world.

This was no easy task, even for this talented group of effects specialists. Stuart needed to be totally believable, in terms of both his look and performance, says Chen. We had to use techniques to bring his photo-realism to a level where the audience completely accepted him and wasn't distracted by the notion that he was created through visual effects. Stuart is far from an ordinary mouse. He talks with both humans and animals, and he has an effect on his world through his interactions. And, he adds, he ultimately changes the Little family for the better.

Imageworks' cutting-edge technology and digital techniques began conceptualizing Stuart's appearance back in July 1997. Hundreds of sketches and three-dimensional images were made to create a lovable, admirable Stuart. First, you study mice and what they really look like, and then you extract from that a kind of caricature which gives personality to the creation, says Minkoff. We needed to find different ways of exaggerating what seems natural about a mouse, without falling into the trap of being too cute. A texture and edge had to remain.

John Dykstra, senior visual effects supervisor, adds, We knew we wanted Stuart to be a non-human form that reads as a human form. Using the newest, state-of-the-art techniques in photo-realism, Stuart's personality emerged from the animators' creations. It was crucial that the character possess the ability to respond to the live-action world around him with genuine emotion. If you don't empathize with Stuart, Dykstra continues, we haven't done our job.

Animation supervisor Henry Anderson, a pioneering digital animator best known for his creation of the Coca-Cola Polar Bears and an Emmy Award winner for "The Last Halloween", and his team of animators created a library of motion and emotion for Stuart. Minkoff and Anderson began to shape Stuart's performance by referencing the actions of mime artist Bill Irwin. His body movements were then interpreted by the animators to inspire their key frame technique of animating Stuart's performance.

Conceiving and refining Stuart's form, however, was only the beginning. Creating Stuart's fur and wardrobe presented a tremendous challenge, says Chen. The technology necessary to create this type of imagery was in its infancy when we began this project a couple years ago. We had to create the digital techniques and tools for our artists to make Stuart convincing on film.

More than half a million computer-generated hairs make up Stuart's head; the smallest of his details, down to his dimples and whiskers, had to be designed and added in the computer. The cloth from Stuart's unique wardrobe was digitally tailored not only to fit Stuart's body, but to crinkle and bend naturally when he was animated. To achieve this, digital cloth animators took sewing and tailoring classes to learn how to construct fabric to produce the most realistic effect possible.

"Stuart Little"

The lighting of Stuart in the computer was also a daunting task. Software was developed to make Stuart's fur illuminate like real hair, allowing the artists to adjust even the sheen on his fur. More important than the technology required to light Stuart was the style in which he was lit. We treated him like a movie star, says Chen. We studied the manner in which Guillermo lit the human actors and followed the same style with Stuart to make him fit in more with the look of the picture.

Explaining the lengths to which the effects specialists went to create a thoroughly convincing "Stuart Little", Dykstra says, "We photographed a silver ball that had a reflection of the set in it. We used that reflection to accurately position the lights for the mouse, right down to the reflections in his eyes."

Artists perfected Stuart's hands with just as much meticulous attention to detail. As director Minkoff viewed different prototypes of Stuart's hands, he decided to make them more like human hands than mouse paws. Eventually, as more and more screen tests were viewed, Stuart's hands transformed into hands similar to those of a little boy.

The creation of Stuart was just one component of the complex effort that brought the movie to life on the silver screen. Once the computer conjured up a living, breathing character, Stuart"s image was then carefully added to scenes, many of which were made trickier because they involved interaction with humans or precision-trained live cats.

The team from Sony Pictures Imageworks will take you through the creative process, from character modeling to final renders, in a pre-screening presentation. Then stay for a special L.A. ACM/SIGGRAPH Chapter screening of the entire feature film.