Project Progress Report

Title: A moving mouse

We start with "An Osteologist's Day" for the course project. In the following two weeks after proposal, we took the real film footage and clean plate for the post production. We also render a virtual real as the special effect. However we find the result artificial unless we do a frame by frame editing. Hence we want to switch to another project.

Summary of the New Project

The new project is named as "A moving mouse". The story line is that a person looks at a "Tom and Jerry" film, and then the "Tom", a cat in the film, sees a mouse which is not a real mouse but an electronic computer device on the desktop. However the mouse slowly transfers to a real mouse. It shakes because it sees that cat, then it runs cross the keyboard and enter into the LCD, finally it runs away.

The input contains two film footages. We will shoot a live scene featuring a man using LCD, and LCD displays a "Tom and Jerry" film. We mark the keyboard and LCD with trackable special color dots for the motion tracking. The tracked move will be used to blend the computer generated mouse object into the live scene.

The other input data is object models. These object models include the keyboard and LCD and the pre-rendered mouse model. We create these models according to the real thing used in our live scene.

The final output is a video clip that tells this story. The above two input will be blended together.

The Effect involved in this projects is
a) Match Move. We will not use a static camera position, instead, we will do some camera shaking so that makes the final film more realistic. Therefore the LCD is not stay one position, to keep the LCD model synchronizing with the live scene, we use match move.
b) Ray tracking. When the mouse run cross the key board and desk, there will be shadows projected into these objects.
c) Morphing. We will use a real computer mouse, then it will slowly become a moving computer generated mouse.

The Progress of the Project

Though for the new project, we start a bit late due to the switch of the project, we still keep the whole thing progress smoothly. We have token the live scene, and convert it into the video film footage that we will work on. The following photo is one of the screenshot.

All the models used in this project are made by ourselves, and they have been already successfully rendered. They are all created in the 3Ds Max. The follow images show the LCD and key model.
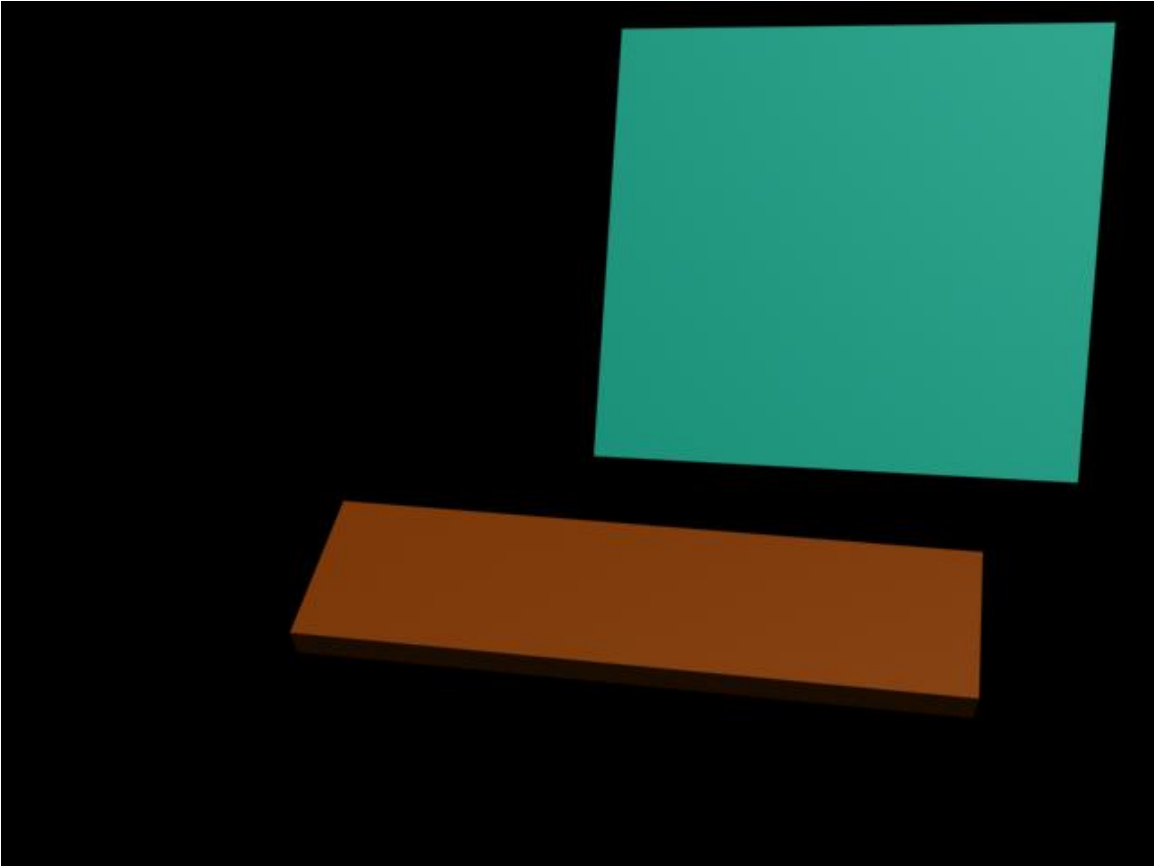
The following are two mouse models. The first one is the mouse before seeing the Tom Cat, therefore it is just a simple computer mouse like object.

The second one is the mouse after seeing the Tom Cat

The project progress smoothly and we are now doing the post production. It can be easily seen that in the live scene, there are few color point, which will be used to do the match move. We are using these points as the control points in the 3Ds Max to keep the track the route the LCD and key board moves in the live scene. We are also doing the mouse movement separately. The mouse movement involves some animation of the mouse object, which will also be done in the 3Ds Max

The Next step of the Project

Once these above two parts are done, we will add the special effects mentioned above to the video clip. These effects are mainly involved in the interaction of the virtual mouse and live scene. Then we will blend them together as the final video clip.

Yang Guang
Zhang Xi
Zhou Yi Nan