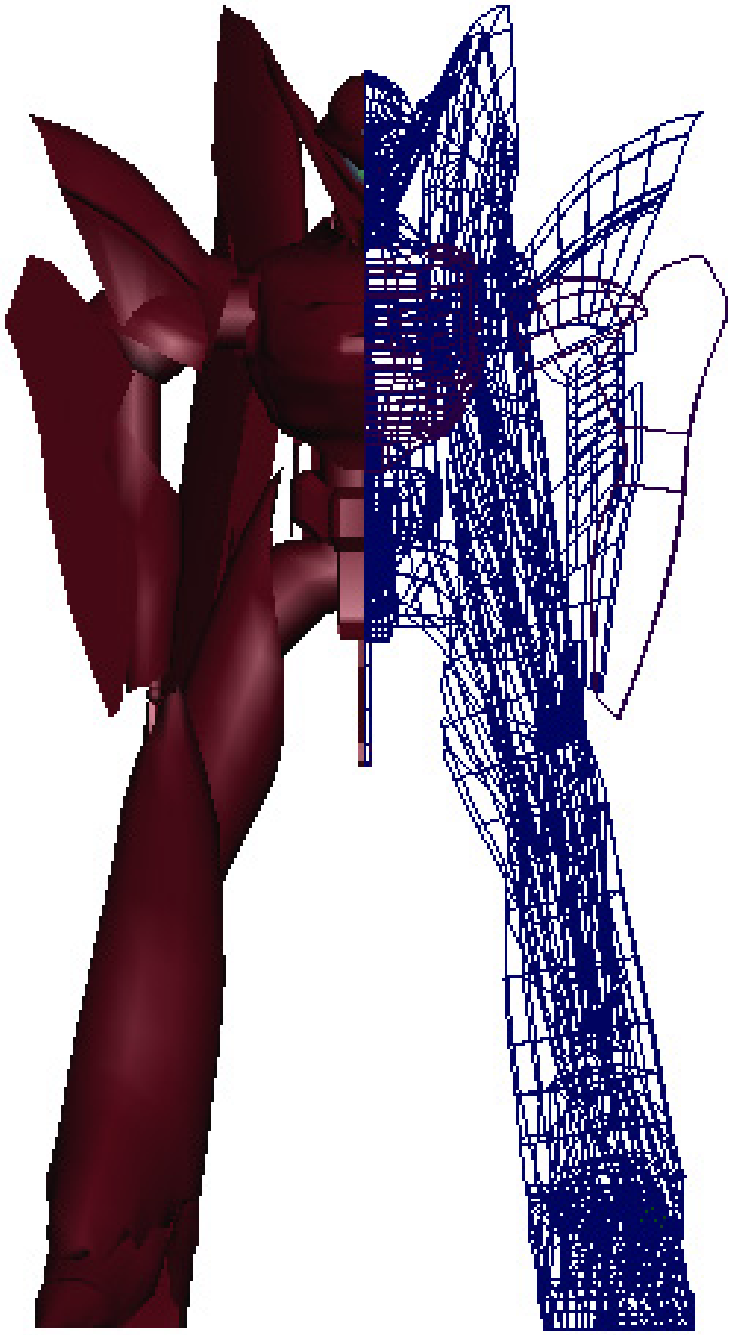
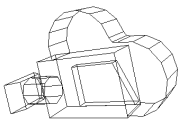


COSC 3p98

Animation Project
1999

(The Robot in Secret Project)



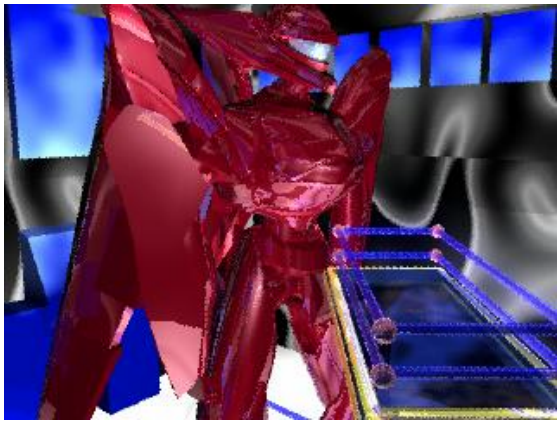
MOVIE LOCATION:
http://www.snyge.com/movie.mov

THIS DOCUMENT:
http://www.snyge.com/cosc3p98.pdf

Report by:

Eddie Yip
Eng Keat, Kok

Table of Contents



The Idea (Brain Storming)

On early November, the idea of this animation project first came into our mind. We are fascinated by the Japanes Anime (Cartoons) and the idea of this project was actually based on one of the favorite Japanese Anime called MACROSS. Our goal was to create a smooth animation, with the robot fired out to the sky from the underground base when everything is ready and the gate is opened. The base located deep in the forest, surrounded with some dynamic objects like waterfalls, grass on land, rocks and mountains.

The Modeling

- Very metallic design
- It fly like a bird also it will fly with afterburner
- We began our Robot design in mid November
- Its actually an robot from one of our favorite Japanese TV show
- Detailing are complex, all done in computer
- We suggest that we will have some eye movements, moving fingers and wings

Time managements

- Like Convenient Store, almost 24 hours a day, 7 days a week (And this is how our X'mas spended)

The Scenes – The Robot in Secret project

Scene 1

Date unknown, somewhere in earth...

Under a secret underground base, the robot is docking. Lights are rotating, warning that the robot is preparing to fly. As usual, the robot performs a system check by rotating its head, eye and stretching its fingers. After everything is checked, the floating platform leaves the robot, parks behind the wall and the robot starts firing. When it is ready, the ground platform lower and the robot lifts off.

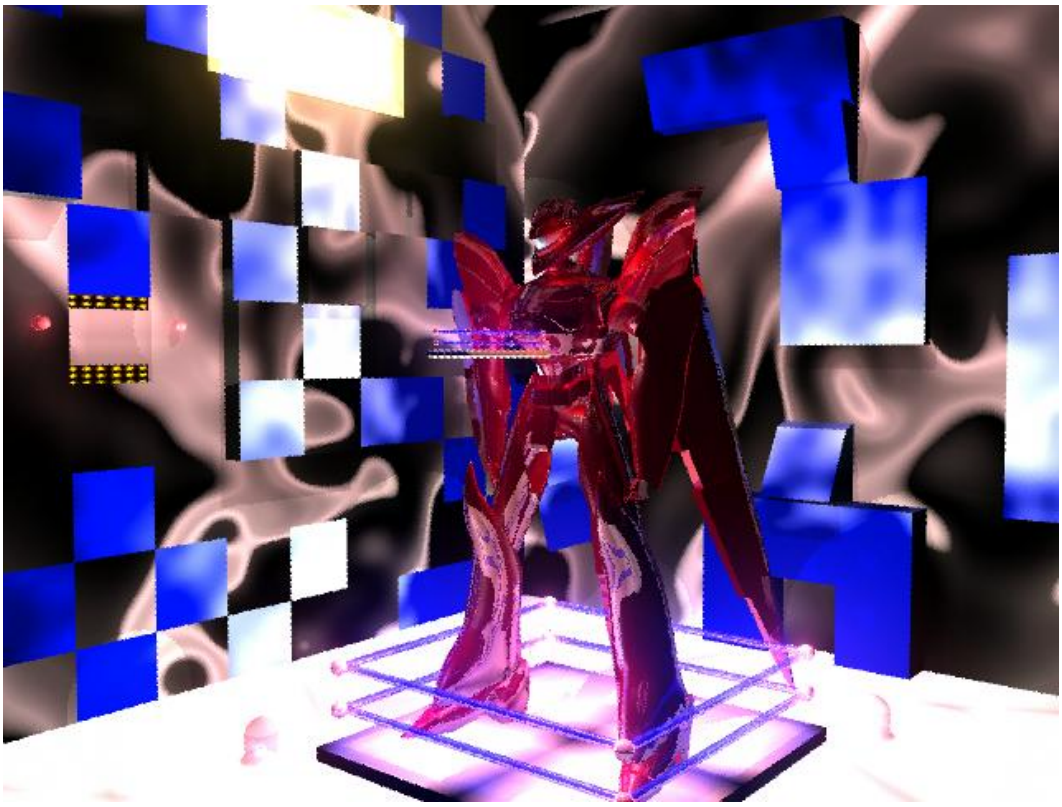
Scene 2

Outside the base...

The sun is shinning, the grass outside the base is waving. It is so quiet and everything seems to be fine. It is a peaceful day.

Suddenly, lights rise from the ground and blinking. The land is shaking and the gate is opening. The robot flies off from the base and up to the sky, and towards the space, carrying on its mission...

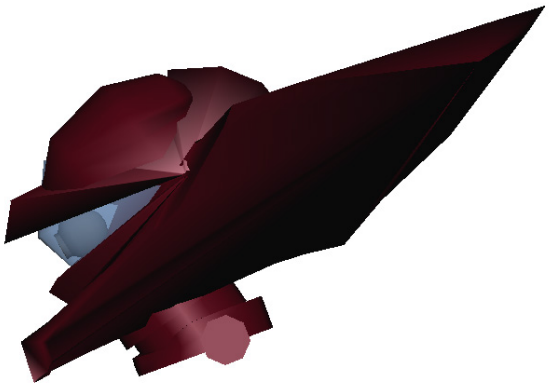
Items in the scene

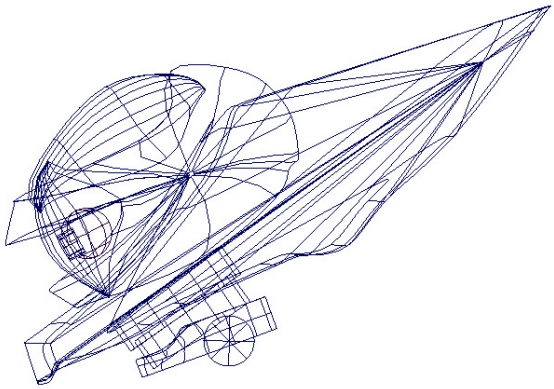


The Robot

This is the main character in this project To model this robot, we denote most of our time, about thirty hours just to complete it. This model contains series of Nerbs Polygons, Nerbs Spheres and Nerbs Curves. Some parts of this robot were created using Nerbs Polygons, Nerbs Cylinders and Nerbs Spheres. Examples are the head, eye, chests and hip. For other parts of the Robot, we use Nerbs Curves and lofted them. Examples are the arm shield, back wings and foots. We applied an invisible cone below the 'backpack' to create dynamic fire. This will ensure that the flames will not 'burning in other part except downwards', especially the 'backpack' since it was placed just above the invisible cone.

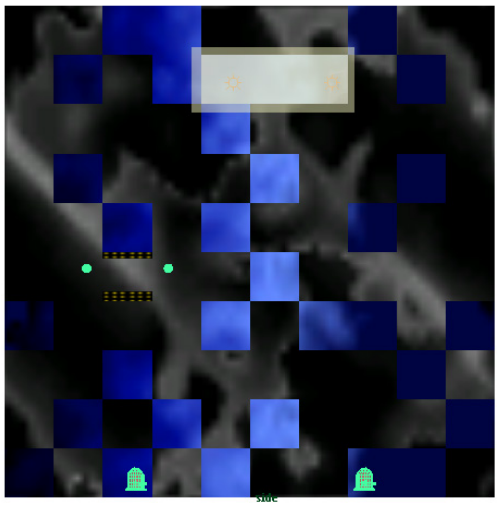
Joints are added in this robot to make easy the movements of each part of the body. Attributes were also used in some parts of the body, like the eye, fingers and the head, so that the rotations and the movements can be done easily. We also applied a lot of techniques in creating this complex robot.





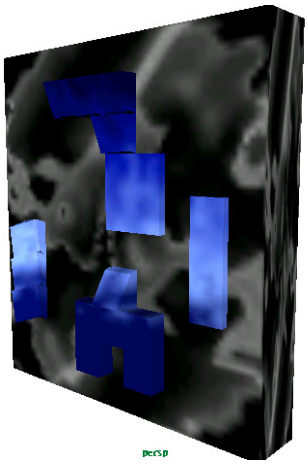
The head

The Walls, Ground and lights



North Wall

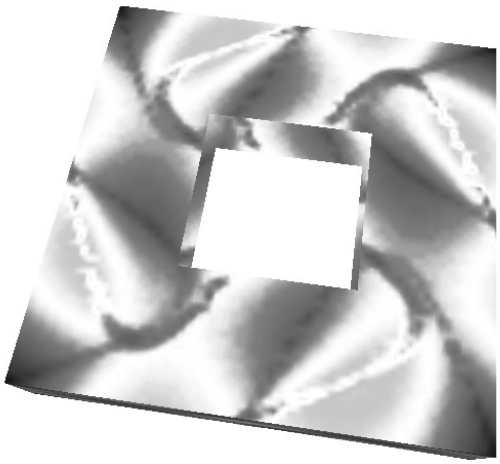
There are a total of four walls and ground they made up the launch station. We created the north wall by using the Nerbs Polygons. So that the wall did not look too plain, we made some modification on the surface of the wall to create a kind of texture on it. This technique involved the use of RAMP color transformation by changing the tone of the color and shift U & V around. (U & V) The use of this transformation also helped created the shadow when we applied lighting on it.



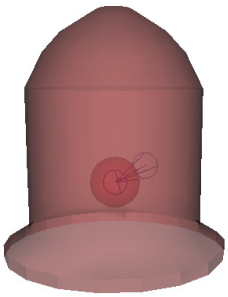
East Wall

We placed a window on the wall, simulating the control room. A cave door which allowed the parking of floating platform is also on this wall. After the floating platform had parked in the cave door, the cave door will shut. Two light are mounted on this wall and emitting green light.

The other three walls were created like the north wall, except that they did not have window and cave door.

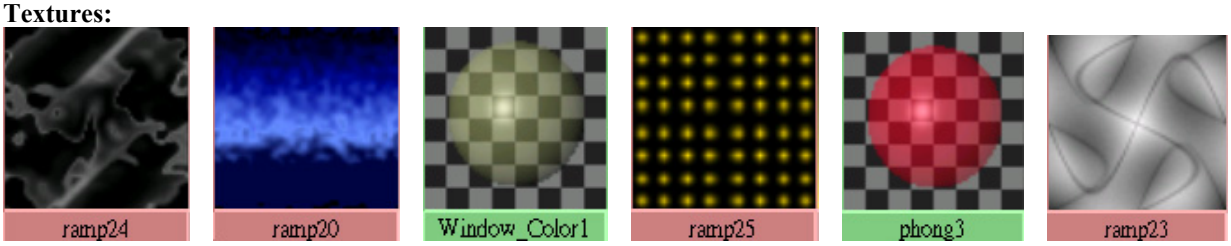


Ground (In the cave)



Lights

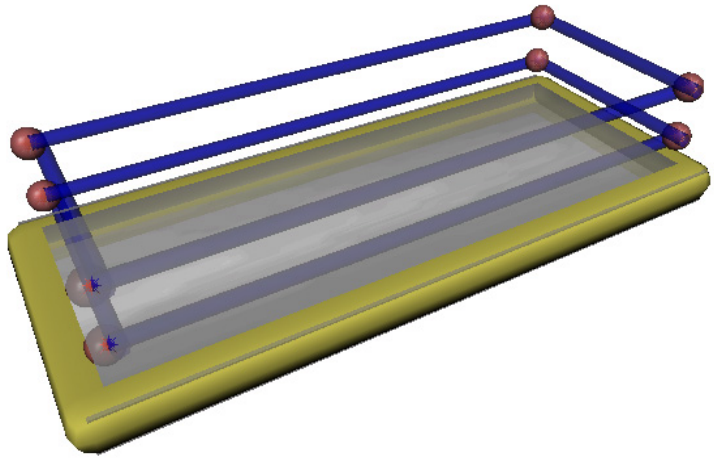
Textures:



The Platforms (Floating)

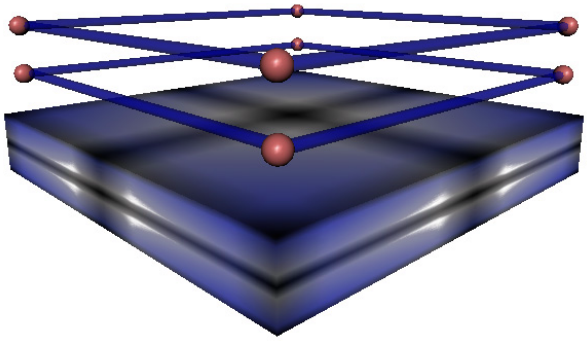
There are two kinds of platforms.

The floating platform consisted of four handles, four light balls which placed on four corners of the handling and one transparent platform with the yellow "bumper" on it. We used Nerbs Cylinders to create handles, used Nerbs Spheres to create light balls and used Polygons to create the platform. This platform was originally floating and then parked in the cave door.

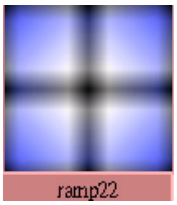


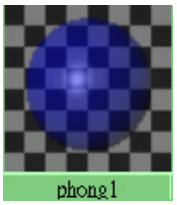
Platform Floating

The Platforms (Ground)



The making of ground platform is similar to the floating platform except that it had eight handles, eight light balls and one platform without the yellow "bumper". This platform was place under the robot and will lower when the robot was ready to lift off.





The Gate

The gate was created using two Nerbs Polygons. It was place on the land surface and it will open for the robot to fly off the base.

The Tree Trunk

The tree trunk was created using the Nerbs Polygons and was placed also on the land surface near the gate of the base. Texture was applied on the tree to make it look close to a real tree.

The Rocks

Two rocks were found on the land surface near the gate of the base. Each rocks was made by using the Nerbs Polygons. We applied texture on the rocks to make it looks better.

The Background

The background of the outside was simply a scanned image file.

Textures are involving RAMP color transformation, which we found that this can save time for rendering then applying texture maps, and it looks good too!

Conclusion

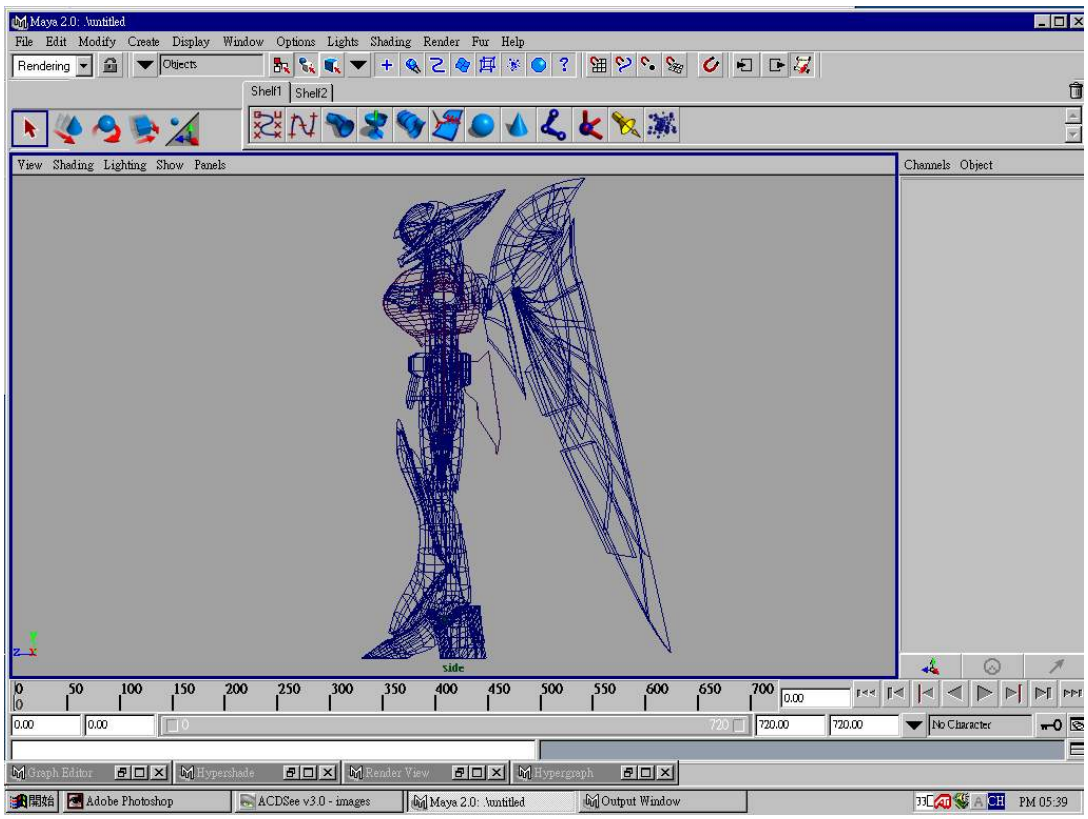
Time is limited, we are proud to be able to produce a short movie by using Alias MAYA. During this period, we encountered numerous problems like using MAYA, applying textures, Dynamics, Fur and more. We also realize that in order to produce a good movie, time is a main component, if we are not able to manage our time, we are not able to finish this project on time. However, system crashes are also one of the main factor which we have to deal with, save ahead of time, and create a backup file are done in periodically. Most of all, creativity plays major role in our project. From modeling to editing to final product and none of part are done logically, we have to dream, brainstorms and run render lot of times in order to produce the right result.

Hardware configuration

- Pentium III 500Mhz 128MB Ram ATI Rage Fury 32MB
- 14" HIGH RADIATION MONITOR!!!!
- Drawing pen
- Flatbed scanner
- Computer lab, Silicon Graphics O2 Machines Under IRIX Environment

Software Involved

- Microsoft Windows NT 4.0 Chinese version (Service pack 5)
- Alias Maya 2.0 for NT
- Adobe Photoshop 5.5
- Adobe Premiere 5.1
- Shareware Movie composer


Maya 2.0: \untitled
File Edit Modify Create Display Window Options Lights Shading Render Fur Help
Rendering
Objects
Shelf1 Shelf2
View Shading Lighting Show Panels
Channels Object
side
No Character
Graph Editor
Hypershade
Render View
Hypergraph
Adobe Photoshop
ACDSee v3.0 - images
Maya 2.0: \untitled
Output Window
PM 05:39

The End