Patrick Jalbert

Technical Rigging Reel Breakdown:

0:00 – 0:15 Lockheed Martin F35 “Experience” Video:

The F35 Experience Video is a larger video completed by the Lockheed Martin Aeronautics Multimedia division for the 2010 Farnborough air show. The animation department inside of the Multimedia division was responsible for all CG components of the video, most of which were technical scenes like the one shown here.

For this project, I was responsible for creating several prorotyped particle streams in After-Effects. These streams had to function within After Effect's 3D space, and used the Particular plugin. The streams had to be designed to be easily modified, and encapsulated so that my co-workers could easily modify the start and end points of the streams.

The final rigged system consisted of two Null nodes, one for each end of the particle stream. Values for tweaking the visibility and density of particles were passed through to the “Source” node for ease of use.

The glowing “holographic” vehicles were created in Maya as a particle simulation around a mesh by myself and Travis Malinowski, then rendered into After-effects using matched camera angles between Maya and AE.

0:16 – 0:28: “A Pawn's Tale”: Building Virtual Worlds, Round 4:

Part of CMU's Entertainment Technology Center's course in Building Virtual Worlds. This was a cutscene completed as part of the “Story” round. We were, in total, a team of 8 people, and had 3 weeks to deliver a game that told a cohesive and engaging story to an audience.

For this clip, I was responsible for animating and compositing the scene, and for modeling and rigging the characters.

0:29 – 0:35: “Kodoku” Animation Final Project:

This was a solo project completed as my final for my undergraduate Animation courses. The particles here were simulated and cached using Maya.

0:36 – 1:09: Dragon Modeling and Rigging Assignment:

Completed as part of the Entertainment Technology course at Carnegie Mellon University. The assignment was to create and animate a dragon with under 1,500 polygons. Texture work was provided by Peihong Tan.

Because the dragon I chose to model was quadrupedal, I left the manipulators for the front paws in world space, and left the hips and upper spine control separated. For the wings, I used a spline control on a guiding line of empty bones, and constrained each “sprue” of the wing to the closest bone along the controlling curve.

1:10 – 1:37: Lockheed Martin Aeronautics, F35 B “Hero” Model:

My main responsibility as part of the animation team at Lockheed Martin was to create and manage a series of mechanical rigs for photo-realistic Maya models of Lockheed Martin's F-35 and F-22 fighter jets.

Each rig had to have a control for every door, control surface, and articulating point on the exterior of the plane, including the landing gear. The rigs had to be built to be stable, and completely locked up, since many of the people that would eventually be using the rigs would have little to no experience using Maya.

Unfortunately, because the movements of the landing gear and control surfaces are true-to-life, I am not allowed to show the movement of the Mesh, only the rig itself.

1:38 – 2:12: "Damsel", Building Virtual Worlds, Round 5:

The Damsel was part of a larger game project worked on in a team of 5 people. I was responsible for the character modeling, rigging, and animation. Textures and original concept art provided by Peihong Tan.

This character was designed to be run completely in-engine in Panda3D, so all facial animation is driven by weight painted bones. Because the visual style for the round was very flat (static camera angle), I decided to use an animated "face card" for the mouth that would be flatly keyed depending on her facial expression.

2:13 – 2:45: "Ruzz", Building Virtual Worlds, Round 1:

Ruzz was the main character from a 2 week project to prototype a game in a team of 4. The game that my team came up with ended up being a block-based puzzle game where the player would attempt to help Ruzz navigate his way through a stage of floating blocks safely. I supplied the concept art, model, rig, and animation. Textures were supplied by Ross Treyz.

Like the Damsel rig, Ruzz was designed to work entirely in-engine in Panda3D.