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Technical Reel Breakdown

1. Alison Rig

2008 – WIP. Software used: Maya

The Alison face rig is a joint bound rig with a layered system of control, each joint is directly controlled by a lower-level control box that receives translation and rotation information from higher level gui controls as well as being individually animate-able. The rig makes use of multiply/divide and +/- average nodes to allow individual higher level controls to control multiple lower level controls. All of the transforms in this set up are additive so that a single joint can receive transforms from multiple higher level gui controls as well as it's lower level control in combination. The rig also makes use of mel scripts and symmetry controls on the higher level gui to quicken the animating process.

2. Alison Dynamics

2008 – WIP. Software used: Maya, Renderman

The Alison character has dynamics for her hair and dress. For the dress an Ncloth system was used with a constraint to the belt and a low resolution version of her legs, torso and arms used for collisions. The hair is a dynamic hair system driving a fur system for the rendering.

3. Cheshire Cat

July 2007. Software used: Maya, Mental Ray

The Cheshire Cat rig is a joint bound rig, produced for a three week concept-to-completion project, that allowed for quick simple animation. A limited number of joints were used with a hierarchal control system to allow for symmetry and multi-joint control. The cat was rendered in Mental Ray with Maya Fur.

4. T-Day

September 2006-2007. Group project. Software used: Maya, Mental Ray, and Nuke

T-Day uses a variety of fur systems to create the look of the different bears at various levels of detail. The fur systems make use of hand painted maps for distinction and grooming. The rendering of the fur was broken up into layers by both depth and shading to handle the volume of fur within the ten week timeframe of the project.

5. Fk/Ik Rig Teaching Tool

September 2007. Software used: Maya

The handball Fk/Ik rig is a teaching tool I created for my Character Animation 1 class. It allows for Fk/Ik switching on each arm independently as well as global body movement with or without arm movement. The rig uses a three

skeleton set up with the joints of an Ik and Fk skeleton both driving corresponding joints on the skinned skeleton and a single slider to drive the percentage on all the joints of either arm.

6. Marionette Theatre Dynamics

January 2007. Group project. Software used: Maya, Nuke
Each marionette has a collection of dynamic hair systems affecting them. The movements of the characters are driven by a hair system in which the movement of each curve is controlled by an independent locator. These curves in turn control the location of a locator which drives the skeleton and IK handles attached to the puppets. The female characters also have hair systems driving the movements of their dresses and hair. In both cases the output curves of the dynamic system are lofted to create the final rendered geometry.

7. Snow Dynamics

September-December 2007. Software used: Houdini, Maya, Nuke
Snow uses a combination of Maya and Houdini to produce the desired look of the particle people and environment. Maya was used to produce joint based animation including dynamic hair systems driving Spline IKs for the girls' hair. These joints and the character's meshes were moved into Houdini using Collada where individual particle systems were created for each body part and structure within the scene. Each particle system emphasized the object or character through its speed, life, color, and interactions. Collision objects were also created and attached to the skeletons for when the snowballs collide with the characters.

8. Blend Shape and Motion Blending Rig

January 2007. Software used: Maya

This character was created for an interactive installation in which a single character was required to transform into four opposing states. The character had two types of blending affecting his mesh. First a blend shape between the four states and the default target. Second a segment of animation was created on its rig for each of the four possible end states and the default. These segments of animation were layered on one another within the tracks editor to allow for motion blending on top of the shape blending. All of the percentage changes for both the blend shapes and the motion blending were controlled by Mel scripts to increase speed.