

Shot List

Shot 01: Biped Rigging Scripts

All work by Michael A. Perretta.

- This script creates a biped character rig, including the following:
 - Controllers
 - IK/FK switches
 - A stretchy spine
 - Custom attributes
 - Set Driven Keys
 - Expressions
 - All channels are also cleaned, locked, and hidden where appropriate.
- This is a modular script, allowing a specific part or an entire character to be built.
- The interface is designed to allow the user to make adjustments between steps, such as manually adjusting joint position and orientation. This allows for maximum flexibility while maintaining a clean and easy to follow user interface.

Shot 02: Demon

Rigging, Dynamics, & Animation by Michael A. Perretta.

Model by Brian West.

- This character rig includes the following features in addition to those listed in Shot 1:
 - Soft Body Dynamics for fat jiggle and wing membrane movement.
 - Corrective shapes for improved smooth skin deformations.
 - The rig was created using a combination of the scripts in Shot 1, and several scripts created specifically for this project. These include:
 - A skin weight editing tool based on selected vertices.
 - An import / export tool for per vertex (per particle) soft body dynamics attributes.

Shot 03: Billy (boy)

All work by Michael A. Perretta.

- This character rig includes stretchy limbs, allowing for a cartoony look when animated. The arm setup includes an IK/FK switch, a forearm twist setup for proper deformation, stretchy IK, and stretchy FK. These all work together, with the IK/FK switch compensating for the stretchiness of both joint chains. Additionally, both the IK and FK have the ability to be stretched and bent simultaneously through the use of an “overstretch” attribute.

Shot 04: Sarah (woman)

All work by Michael A. Perretta.

- This character rig's facial shapes UI can have its transparency adjusted, allowing the animator to change its display to suit their needs in any situation. It can also be hidden entirely.

Shot 05: Bird

All work by Michael A. Perretta.

- This character rig has wings that can be controlled through a combination of translation and rotation, providing the animator with flexible, easy-to-use controls.

Shot 06: Robot

Rigging, Dynamics, & Animation by Michael A. Perretta.

Model by Brian West.

- This character rig was created using several scripts, which include:
 - Renaming utilities, including mirroring names across axes to cut the time to name all objects almost in half. This character includes approximately 500 individual polygonal objects.
 - A utility to find the center point of a selection of vertices. This includes the center of the total area (bounding box), and a weighted center point, based on the density of vertices.
- Additionally, this character includes several expressions which drive various gears and other parts of the character, which are based on the broader movements of the character. For example, when the animator moves the arm, a coil in the back will spin automatically. This creates the desired effect while reducing the time the animator must spend completing a shot.