



You Want How Many Animations When?

Getting Large Amounts of High Quality Animation Quickly

Floyd Bishop

Senior Animator

Sony Online Entertainment

GAME DEVELOPERS CONFERENCE™ EUROPE
COLOGNE, GERMANY
AUGUST 13-15, 2012 **2012**

Animating for a Live Title

In an MMO such as Free Realms, there are thousands of players sharing the same world at the same time. Players are spending real money on virtual items and worlds. They need to feel as though they have gotten their money's worth. Things that behave exactly like things they have already seen are not very exciting. A simple palette swap is usually boring to the player.

It is up to us as animators on a live title to ensure our players continue to be entertained by the creatures and characters they encounter, regardless of how many years they have been playing the game.

Without the animation team, games are just slide shows!

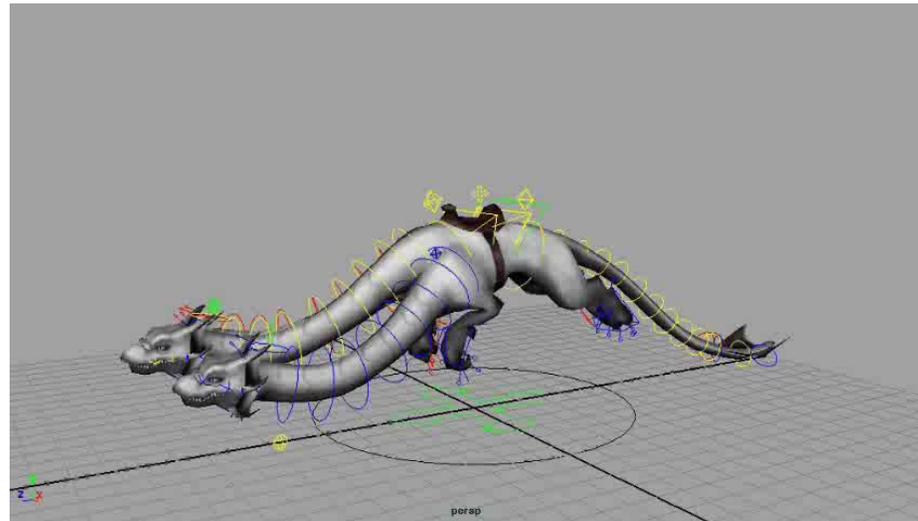


Rigging With Reuse In Mind

When rigging the characters for a game like Free Realms, it is important to have some rules for the character set up process.

- Naming conventions for controllers
- Left Side / Right Side symmetry
- Expressions to help with poses (we use this a lot on facial animation)
- Standards allow for more complicated characters to be rigged quickly.

Complex Characters



Logical controls allow for complex animations to be done in a short amount of time.

- Common set up standards such as rotation direction (X rotate will bend a character forward, regardless of which character you are animating)

Unique animations are ideal

A well planned animation can be altered to create a new animation for a similar character

- A live title needs many animations in a short amount of time
- Unique animations are often not a viable option... or are they?
- A Human doesn't move like a Dog
- A Dog doesn't move like a Horse
- Maybe a Sasquatch moves similarly to a Human?
- Maybe a Wolf moves similarly to a Dog?
- Maybe a Night Mare moves like a Horse?

If the controls on the rig are the same (or close), animations can be shared, even with different proportions

Planning For Speed

Keep your animation curves clean. Key what you need to, and when, so that the animation is easier to adjust. It is much easier to adjust a few keys than it is to adjust an animation with keys on every frame.

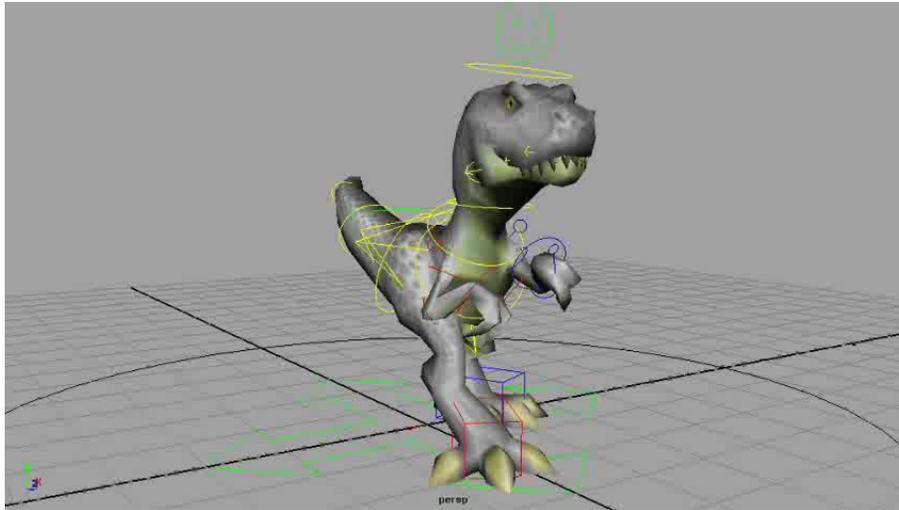
By adjusting something as simple as the X rotation on the Center of Gravity (COG) controller, you can get a totally different feel out of an animation with a minimal amount of adjustment time.

Be careful! Not everything can be easily transferred between characters.

Animate Half & Get The Other Half Free!

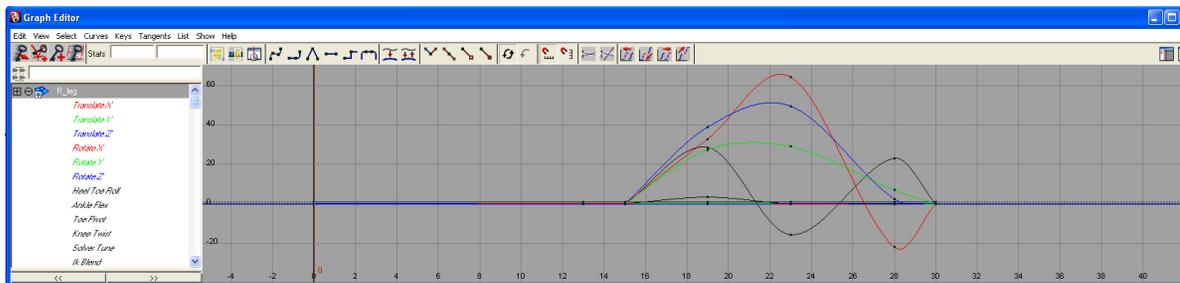
For characters with bilateral symmetry, animate the left or right side, and get the other half by copying and adjusting what you have already animated.

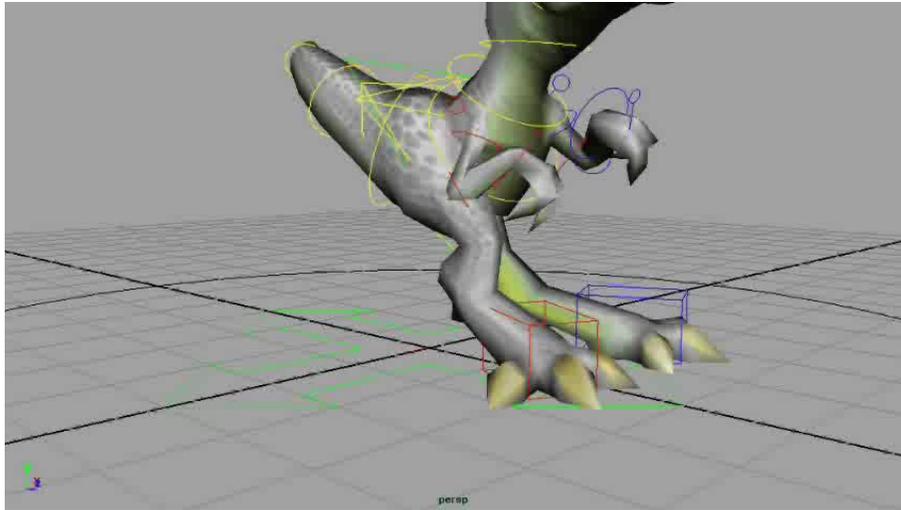
- Feet
- Arms
- This will work for pretty much anything on one side that has an identical counterpart on the other side
- You will most likely have to invert things like some rotations and translations from one side to the other.
- Infinity is the key to speed!
- When to cycle, and when to oscillate keys



By animating the Right side, we can get the Left side

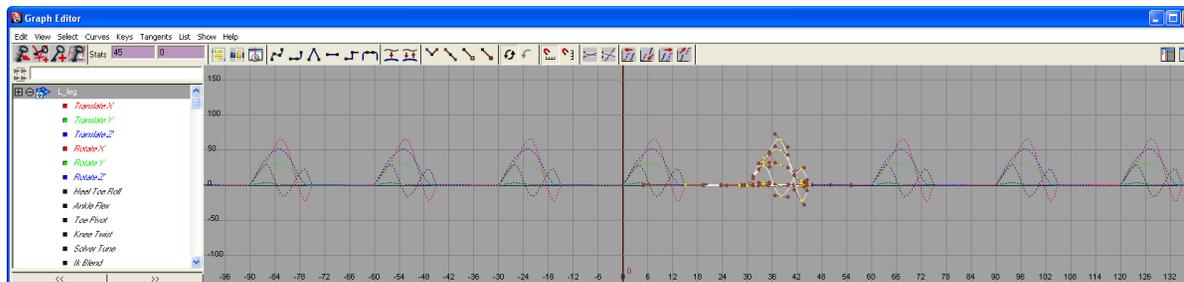
- Animating half isn't as hard as it sounds
- By animating half, you actually get more time on the side you're animating than you would have had in the first place.

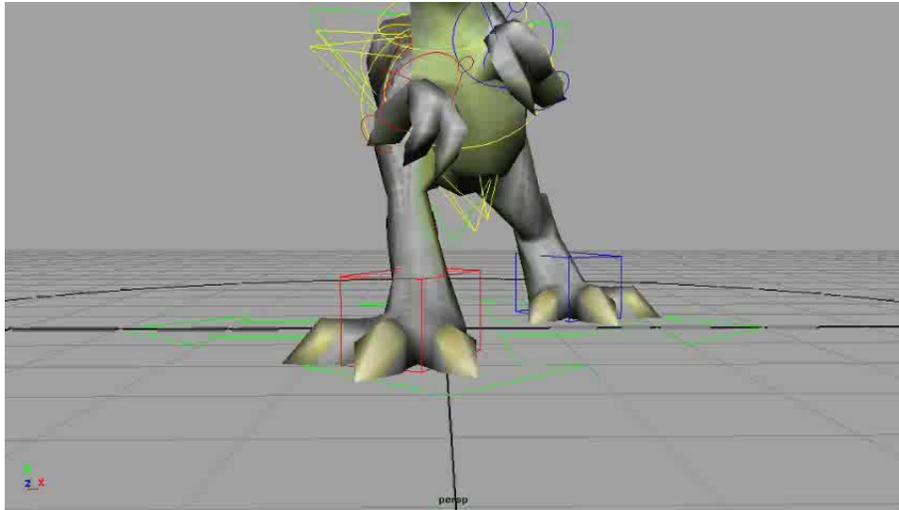




Copy animation from the Right side to the Left side

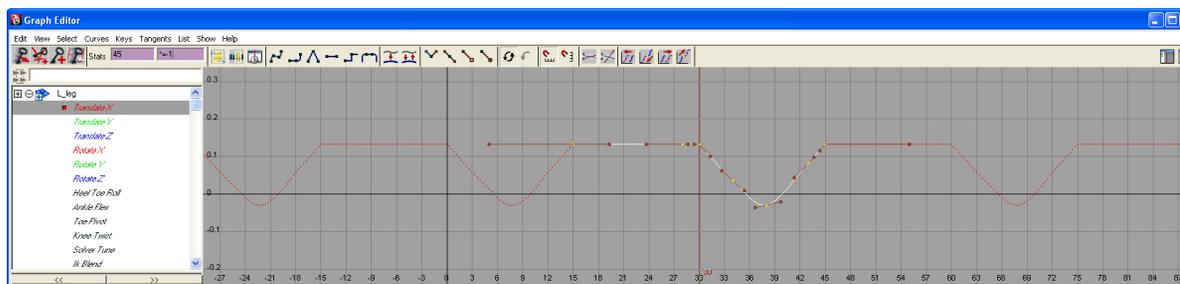
- Select all channels on the R_leg and "Copy Selected"
- Select all channels on the L_leg and "Paste Selected"
- "+ = 15" will offset the keys as much as we need them to be.



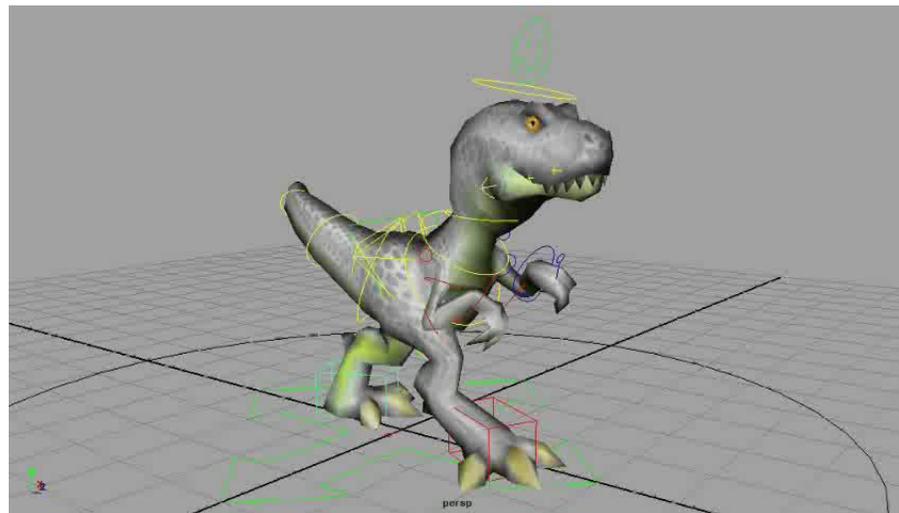


Some things need to be adjusted after crossing over the origin

- In our setup, Translate X need to be inverted
- Rotations often get jacked up as well
- “* = -1” in the values editor will invert the graph, making positive values negative, and negative values positive



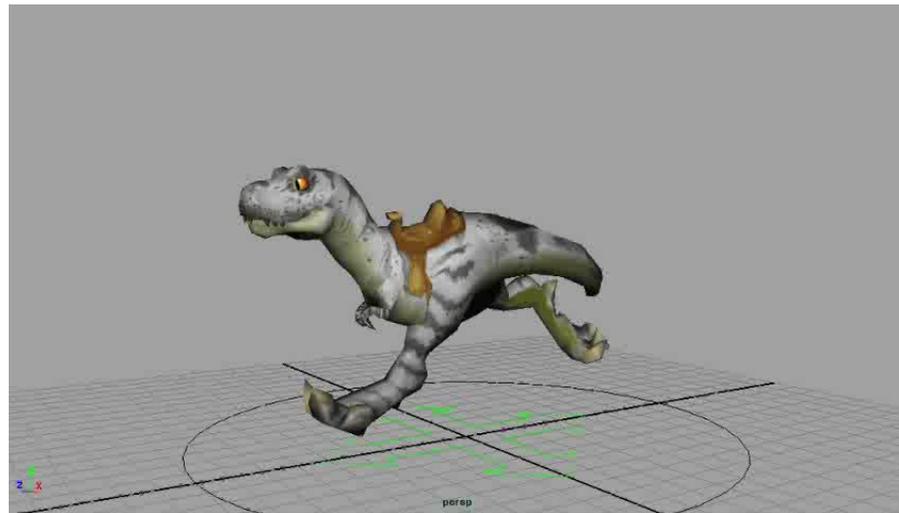
Walk complete



Here is the completed walk, with the foot copied, pasted, offset, and values corrected on the other side.

- Allows for more focus on getting one side correct than you would have otherwise spent.

Alternate Versions of Characters



This is the easiest scenario in which to share animation

- Similar proportions
- Identical control rigs

Characters of the Same Race and Gender



It is logical for these characters to move in a similar fashion

- Age, physical fitness, and mobility are all about the same
- Identical control rigs

Slightly Altered But Still Shared Anims



By altering just a few keys, we can get a similar yet different animation

- Works great for similar races, species, or genders
- Control rigs are close enough to share animation well

Mixing things up a bit



Having Player Characters react differently to the same thing

- Seemed like a good idea at the time
- Players weren't too happy about it
- Sometimes it is necessary

Tools That Make the Tasks Easier

There are several MEL scripts and tools freely available that make the production process easier.

- Pose 2 Shelf – This works as named. This tool will take a pose from selected controls and save it as a button to your current shelf. (available on www.creativecrash.com)
- PAIE – Python Animation Import Export tool. This allows the animator to save out complete animations, creating a library, and then import those animations onto other characters. (available on www.creativecrash.com)
- Functions within Maya – "+=#" and "*=#"

When Good Animations Go Bad



This animation looks ridiculous when applied to a character with very different proportions!

When repurposing animation, be smart!

Just because something has two legs, doesn't mean it moves like something else with two legs.

- A baby moves differently than an old man
- A horse does not move like a dog
- With slight alteration, maybe a baby's animation could work on an old man, or a dog animation could work on a horse.

Questions and Answers