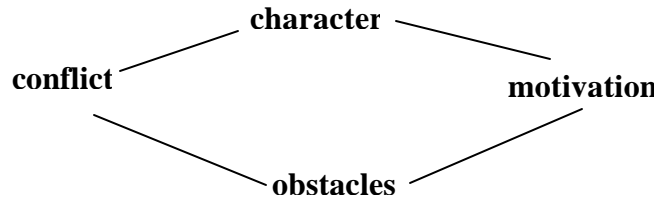


Expressive Animation

Create a simple expressive animation using primitives.

1. Write down a simple story with conflict and resolution.

Create anthropomorphic creatures interacting with each other or another simple unanimated object. Try to exhibit them with expressiveness and feeling. *Examples of motive: fear of a high cliff, a fence in the way of an ice cream truck, etc. Show me both story premise and animation for evaluation.*



2. Choose 1-2 primitives to animate in an anthropomorphic way:

Box primitive: could be a cereal box
Cylinder primitive: could be a tin can
Torus primitive: could be a donut
Sphere: could be a bowling ball

3. You must incorporate the following types of animation into the exercise:

Basic Keyframing of position, scale, rotation
Animated modifiers

Extra...

Animation on a path
Visibility Track

4. Use a camera (either free or target): The story must be told by a single camera view.

5. The animation must be told in maximum 30 seconds. No textures allowed; no lights. Keep it simple

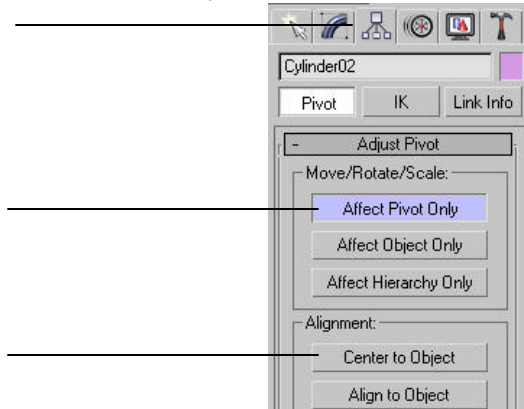
6. Render out your animation using Make Preview (*Rendering: Make Preview*)

7. Show both story and Rendered Camera View Animation for credit

Tips

Object Axis

Alter the axis center of the object for more predictable rotations and scales.



Move Playback head to specific time frame

Right-click on keyframe in track and Choose 'Go to Time'

Polygon Segments

More segments = more articulation of polygon and larger file size (slower playback)

Less segments – less articulation of polygon and smaller file size (better playback)

Xforms and Non-Uniform Scale

Add an Xform to your object and apply the non-uniform scale directly to the gizmo.

Make sure you have the gizmo selected (sub-object selection; click on X-form modifier- it should highlight yellow) before scaling.

Animation control

Animate in top, left and front views not perspective views. Or create a camera and carefully animate in the camera view. Constrain movement in a single axis.

Animation length

You are animating at 30 frames per second. You will create an animation that is 30 seconds long max. This equals out to 900 frames in length.

Duplicating keyframes

Shift drag to new position

If your trackbar does not appear at the bottom of the screen

Customize: Show UI: Show Track Bar

Animating free-form deformations

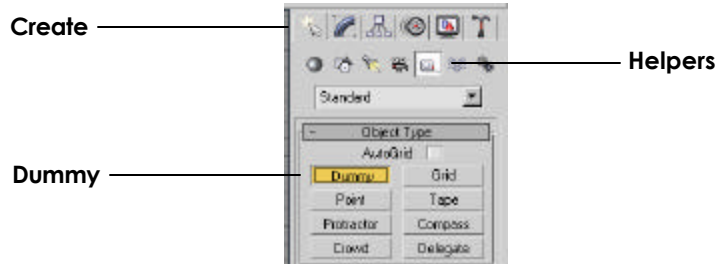
Start with a higher segmented shape

Add a FFD modifier

Animated cameras

Control a camera using a pre-drawn path: free camera constrained to a path curve
Control with Dummy Objects: use with target camera - link camera to dummy object

Create Tab: Helpers: Dummy



Linking

Link objects together if they need to move together

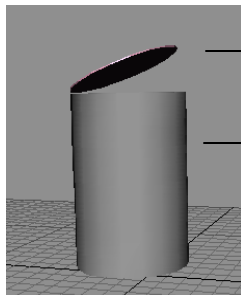
Child Object: child can be moved independently of parent if child is transformed

Parent Object: Child will follow parent if parent is transformed

1. Select the child object
2. Toggle the link tool
3. Drag from child to parent object

Select Child
Link to parent

Parent



Child - can top be moves independent of can base
link by clicking on can top and dragging to base.

Parent - can base when moved will move can top

Show Ghosting

Onionskinning effect; hard on processor of computer!!!

Track View

General score depicting all records of animation / effects



Creating Holds in your Animation

Duplicate a keyframe

Set it to the right of the original one

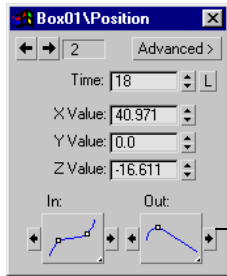
it should have the same position, scale, rotation values

change function curve to linear for in and out keyframes

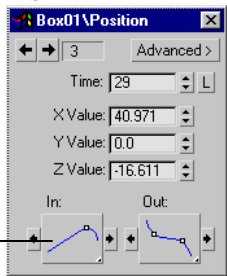
Open Track View (right-click on object – choose Track View Selected)

Select transform choice (position, rotation, scale) for hold (duplicated) keys

Right click on first key (Key Info Basic) – choose Linear for Out



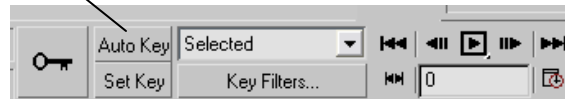
Right click on second key – choose Linear for In



Setting keyframe values (position, scale, rotation) – ‘auto key’ verses ‘set key’

When in auto key mode (red) - keys are created automatically each time the selected object is transformed in space and only for the transform types altered.

Use Set Key to create keys for all transforms (even transforms not automatically keyed). For example, if your first rotation key is automatically set at frame 50, then the rotation will start at frame 1 and transform slowly into frame 50. Remedy this by setting keyframes manually (Set key) at frame 40; It will remain in one position from frame 1-40 then start rotating until it hits frame 50.



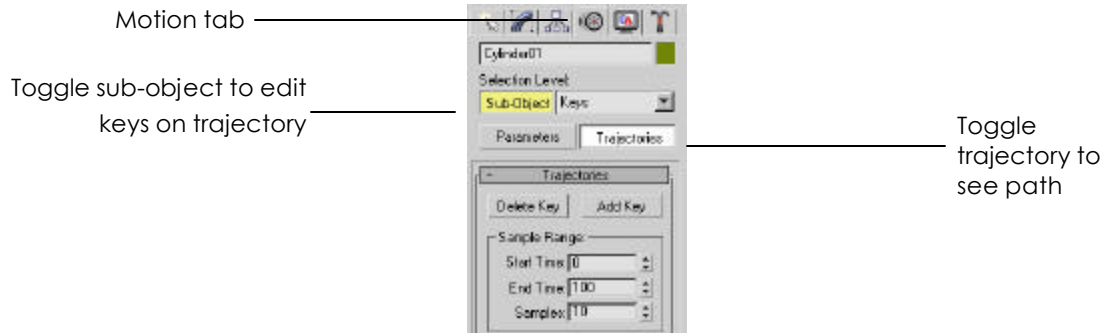
Trajectory of Object

Right-click on object with animation keys and Select Properties
Check trajectory

Or

Select the motion tab
And toggle trajectory button

Edit trajectory – toggle sub-object keys and manipulate keys of trajectory in views

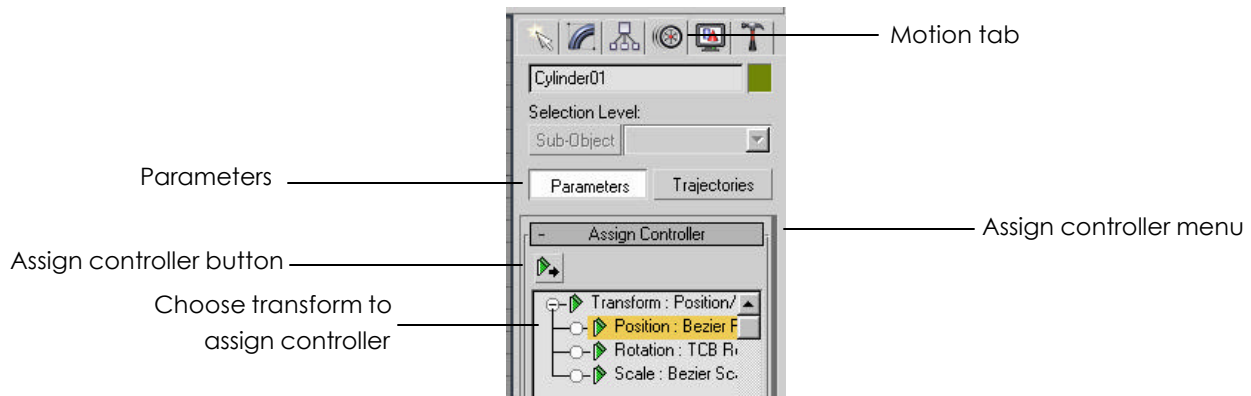


Animation Controllers: Specify a type of animation constraint on your object such as follow a path (*Path Constraint*).

Motion Tab: Parameters: Assign Controller Menu

Select Transform to assign new controller

Toggle the assign controller button to get list of controllers for that transform



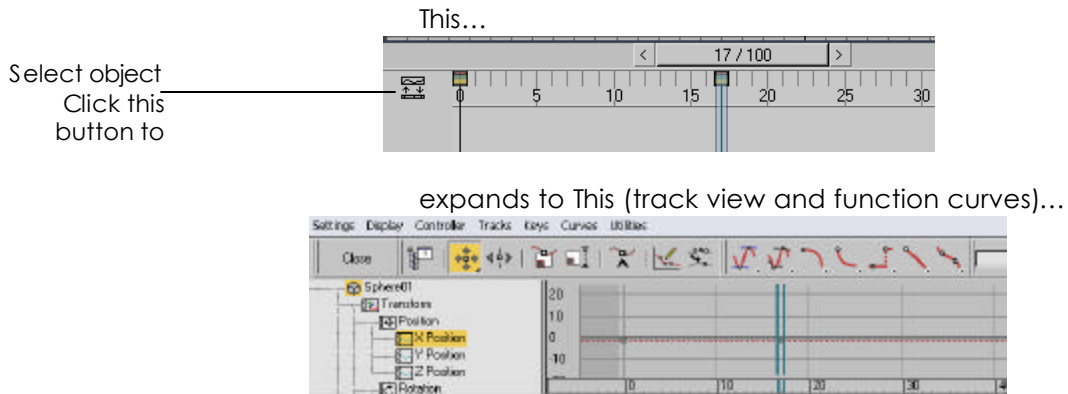
Here is a partial list of some controllers (check book for description of others):

- Visibility Tracks
- Noise
- Path Constraint

Open Track View for selected object only

Right-click on selected object
Choose Track View selected

Or



Use 'set keys' icon
in conjunction to
selected object
and key filters



Tips on timing...

Medium of delivery and frames per second

Video = 30fps; film = 24fps; multimedia/games=15fps
Safe to choose 30fps (it can always be translated to 15fps later)

Know what the length of the animation is first

Dialog stretches out the length of a movie
So does slow characters and slow motions
Camera-cuts can shrink the length down well

How much time?

Too little time = fast/unclear
Too much time= slow/boring

One thing at a time

Animation perceived best sequentially
Smooth sequence of motions
Cause/effect

Pose to pose animation

Create the extreme keyframes first (block out the major poses) then work with timing later

Timing suggests weight

Slow in - constant speed - slow out general rule but how long it takes to transition into each of these changes the way we interpret its mass