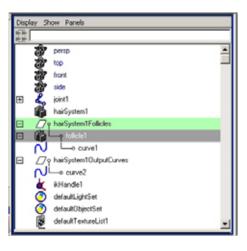
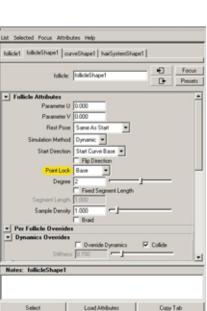
## **Hair Dynamics IK Solver**



- 1.) Create the joint chain that you will be controlling with the hair dynamics. The Chain should run top down. Meaning that the joints higher in the overall skeletal hierarchy should be at the top.
- **2.)** Create a Spline IK starting from the bottom of the chain and ending at the top.
- **3.**) Delete the IK handle but leave the curve that is now running along the center of the joint chain.
- **4.**) Switch the menu bar dropdown to Dynamics
- 5.) Select Hair > Make Selected Curve Dynamic > Option Box
- **6.)** Uncheck all three boxes if any are checked



- 7.) Open the Outliner. You should now see HairSystem1, HairSystem1Follicles, and HairSystem1OutputCurves.
- 8.) Expand out HairSystem1Follicles and select Follicle1.
- **9.**) Open the attribute editor and look for a dropdown called **Point Lock**. Change this from "BothEnds" to "Base".
- 10.) Go back to the outliner and select the HairSystem1 node and in both the attribute editor or in the channel box (whichever you find more convenient) you should be able to find a **Gravity** attribute. This is set to "0.980" by default. Change this to "9.800" for more realistic gravity. Also the Stiffness attribute should be tweaked to set the simulation for whatever kind of material you are attempting to replicate. Higher levels would work better for wires or foil conduits/ducts while lower stiffness levels work better for things like dangling cloth or chains.





- 11.) Once the curve is reacting how you want it, you need to recreate the IK handle but force it to use the dynamic curve as the control spline.
- 12.) To do this, select the **IK Spline Tool** but before creating the solver, go into the tool options for the tool and uncheck the **Auto Create Curve** and **Auto Parent Curve** checkboxes.
- 13.) Once the tool options are set, create the IK Spline Solver by clicking the bottom joint, then the top joint, then the dynamic hair curve that should be running along the center of the joint chain if the previous steps were followed correctly.
- 14.) Press Play. How awesome is that!

