**FK/IK Switching**

**FK (forward kinematics)**

* Good for most motions
* Allows you to animate clean arcs, follow through and overlapping action
* Use case
  + Waving arms
  + Adding follow through on corruption’s coat tail
  + Any chain-like movement

**IK (inverse kinematics)**

* Good for goal based motion
* Allows you to position the hand or feet in a set location
* Hand or feet will remain in that position regardless of the body’s movement
* Use case
  + Walk cycles (keep the feet planted on the ground)
  + Pushing an object (keep the hand on the object)

**Select Switch (Ctrl + Shift + a > Switch > Select Switch)**

* Selects the switch anim of a certain limb
* For example
  + Selecting the left hand and selecting switch will select the left arm switch anim

**Just Switch (Ctrl + Shift + a > Switch > Just Switch)**

* Simply switch between FK and IK controls
* Warning: not guaranteed to match between poses. Most likely they will not match poses.

**Align Switch (Ctrl + Shift + a > Switch > Align Switch)**

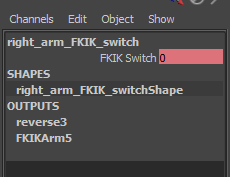
* Switch between FK and IK controls and automatically match poses
* Warning: depending on the pose, the pose may not match completely

**Align Switch and Key Before (Ctrl + Shift + a > Switch > Align Switch and Key Before)**

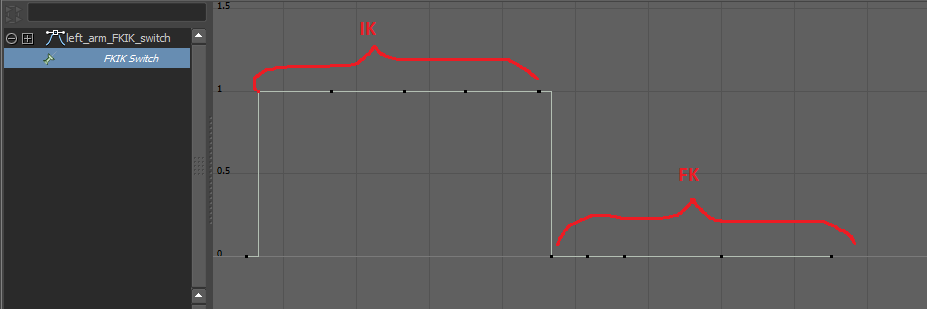
* Switch between FK and IK controls and automatically match poses. It will key the FK/IK switch anim 1 key before the current key. This extra key will state that from this frame on, this limb will use IK or FK controls.
* Use this when you find the frame where you want to switch from one control scheme to another.
  + Examples
    - When the hand first contacts the arm rest of a chair (align switch to IK and key before)
      * This will keep the hand stationary on the arm rest
    - When the hand comes off of the arm rest (align switch to FK and key before)
      * This will allow you more control of the arm

Notes:

IK/FK switch anims



* The FKIK Switch channel can be set to either **0 or 1**
  + 0 = FK
  + 1 = IK
* This makes it easy to edit when you want FK or IK in the animation via the graph editor.



* Make sure that these curves in the graph editor are stepped. Otherwise your motion will overshoot. This is **BAD.**

