

A guide to Motion Editing and MotionBuilder in 140 characters
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Rigging Dojo

MotionCapture Shoot and planing tips

1. People who don't have time for pre-production must have a lot of time to waste later on. I envy them. [#animtip](#)
2. Taking 10 seconds to fix something in planning will save you 10 hours of work fixing it later. #MoCap [#animtip](#) #Crunch30
 1. I'm trying to implement unplanned MoCap into a scene right now. It's like trying to put a square block in a round hole. Use pre-pro people.
3. Yeah, I've actually been surprised recently which much directing, and especially pre-production, has helped. @XopherJohnson @bclark_cgchar
4. Trying to plan out deadlines is one of the hardest things for me to do. I feel like I need to add 30-50% to my estimation to get close.
5. Communication is essential. Even a single doubt about an anim can cause huge problems later on in the pipeline. [#animtip](#)
6. When planning #MoCap I found out I'm frequently weighing the awesomeness of a shot vs. how much I value of an actor's spine.
7. I just realized that shooting #MoCap is just a bunch of grownups playing pretend. Only with better toys. I love it.
8. You're a master of the thespian arts? Fine. Fantastic MoCap boy. But all I want you to do is enter the volume with your Rt Foot first!
9. The best way to get your actors to act casual? Keep 'em in volume and don't tell them the cameras are rolling. #MoCap #Crunch30
10. @Anim8der I don't think theatrical actors are necessary. Exaggerating MoCap with animation is easy, capturing subtlety is what we need.
11. Two person interactions: The coveted gem of the MoCap animator. #MoCap #Animation
12. Cinematics: Making people run from point A to point B... IN CHARACTER!!! #Animation
13. AI Animation: Making people run from point A to point B. #Animation
14. A MoBu license should come with a Mannequin bust... so I have something to strangle when it crashes 30 times in a day. Call it a feature.

Editing Tips

15. I love a pipeline that focuses on non-destructive processes. Makes going back and editing so much easier.
16. Pop in the spine somewhere? Try plotting down and switching to the IK spine. It'll be easy to see in the translations. [#animtip](#) #MoCap Brad: Smoothing with the Butterworth filter on any of the IK controls will work better than trying to clean or filter the FK nodes.
17. Become familiar with the Mirror Pose tool in MoBu. It can save you a ton of time roughing cycles. 4:30 <http://t.co/4TipKE1L> #MoCap [#animtip](#)
18. If you're having trouble selecting joints, try throwing a Handle or Marker on it. They're easier to work with. [#animtip](#) #MoCap #Crunch30
 1. For as long as I've been working, I've never seen ANYONE use handles. It boggles my mind.
19. Just opened up a scene with NINE animation layers. ALL UNNAMED! #TableFlip
 1. I know it's tempting and seems well organized. But seriously, the fewer anim layers, the better. [#animtip](#) #MoCap #Crunch30
20. NAME EVERYTHING. Keep things organized and grouped correctly. You don't know how important this is until people stop doing it. [#animtip](#)
 1. Found something labeled as "DO NOT DELETE" in my file. Celibate monks don't have the willpower I have right now... *finger over delete key*
 2. Use namespaces starting in Maya and MotionBuilder to make sure you can get data in and out of Maya correctly.
21. Cycle is a thing that ends in the exact same way as the beginning of the Cycle
22. Preserve the data! Plot nulls, keep story clips, don't delete anything. Original data is always useful. [#animtip](#) #MoCap #Crunch30 Brad: Make sure that you keep one take that has the source data untouched so you or your lead can always compare back and make sure the edit didn't lose the intention of the capture.

MotionBuilder tools

23. I learned about Parallel vs. Serial evaluation to speed up my fps in MoBu. Why the hell didn't anyone tell me about this? #MoCap #Animation Brad: Window-Profiling Center to find all the tweak settings to speed up MotionBuilder
24. Here's a list from 2008 (Zip file with jpgs in it) #Mobu #MoBuHotkeys <http://t.co/p6wAG6hf>
25. Actually, there's poor documentation on #MoBu hotkeys. Post any cool hotkeys you know to #MoBuHotkeys Bonus points for a link to a full list
26. Hotkeys in #MoBu F5 - Local Space, F6 - World Space, Insert - Pivot Manipulation, Shift+E - Rotate Around. Thank you @OmniZed #Crunch30
27. @bclark_cgchar i LOVE the rotate around tool. I'm still keeping my fingers crossed that they'll

include it in Maya one day.

1. Do they have a "Rotate-Around" tool in the newer versions of #Maya like they do in #MoBu? This thing is AMAZING! Brad: Nope, Maya doesn't but 3dsMax does, adjusting pivot options
28. Aux Pivots are great for hand placements. They maintain natural rotation while keeping contact points static. #MoCap [#animtip](#) #Crunch30
 1. I'm surprised at how little Aux Pivots are used or explained in #MoBu. Brad: For alternative to added nodes, see the above Rotate-Around tool.
29. Does anyone get multiple keys within a frame when they use a filter in #MoBu ? How do I stop that?
I solved my own problem. Turn off the "Quaternions" checkbox in the filter menu. #MoBu #Autodesk #Animation #MoCap #MadeUpWord #Facepalm
30. Brad: Related note Any animator that wants to work in step keyframe mode or wants to have explicit control over their curves will want to turn this off, select your objects and in the properties-transformation options-quaternion rotation off. See more [at this video tip](#).
31. The definition of "polish" varies from company to company. Take the time to learn what your directors are looking for. [#animtip](#)
32. I have yet to find a purpose to the endless .bck and .fbm folders MoBu keeps making every time I save. Has anyone used 'em? [#animtip](#)
Brad: After a long day of edits and accidentally saving over my working file with a mistake instead of opening it again, the .bak folder with my previous file was a life savor, the .fbm or Filmbox Media Format folders, not so much use no.
 1. Sweet Marmalade! MoBu's auto backup after a crash actually saved my work! I need to go check the temperature in hell. #MoCap

Story Tool

33. Have any of you ever used Time Discontinuity in #MoBu? I had to at my first job but I haven't met anyone else who has.
 1. That Action/Edit button next to the Story button is for Time Discontinuity. Pray you never have to use it. #MoCap #Crunch30
Brad: I have only used it a few times for previs or for a quick proof of concept, I have never used it for anything final.
34. In story mode, grab the bottom of the layer and drag it down to reveal new options. This also works for sublayers. #MoCap #Crunch30
Brad: There are default settings in preference for how wide the Track is at start so you can have them show more or less details at creation. (track weight and character mapping are in there)
35. Plotting the whole scene from story mode is evil. Use "Plot Selected" whenever possible to keep things clean. [#animtip](#) #MoCap #Crunch30
36. Fresh story clips are like pristine rods of glass. You don't really want to break them into pieces but it feels so damn good when you do.
 1. Do yourself a favor and check with your lead before you start hacking apart story clips like a

Tarantino movie. [#animtip](#) #MoCap

37. When I have to cut and blend a story clip in six different places that usually throws up a red flag for me.
Brad: If you capture a long set of moves this isn't a problem, if you are trying to meet a request for a change and it requires Frankensteining the move from tons of pieces, something was missed in planing and the move if possible should be recaptured correctly.
1. A bad blend is not "fixable". It just looks bad. If it doesn't work, try a new spot in the clip or re-shoot. [#animtip](#) #MoCap #Crunch30
38. Story or Layers- A character override sublayer or (subclip) can easily fix any candy wrapping caused by constraints or effectors. [#animtip](#) #MoCap #Crunch30
1. You can do a lot of really neat things by playing with sublayer weighting.
39. Today I have clips blended with blended clips that have been plotted out so I could blend them again... welcome to #MoCap. Brad: Building up moves often requires multiple passes, doing it in stages keeps it more manageable instead of trying to do the entire edit at once.
40. Any of you guys ever have to manually blend #MoCap clips together without the help of story mode? Brad: Yes I creat the blend using pasted poses to create good start ends on each take and then I use copy/paste keyframes from the timeline in order to move animation from one take to my compisite, pasteing the B animation on to the end to of my A animation, then I clean up the transtion if needed.

We hope you enjoyed this short guide. You can find more information and training on MotionBuilder and more at [RiggingDojo.com](#)

For additional free resources check out the [The Character Animator Toolkit for MotionBuilder blog](#)

Special thanks to the tweets of

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