



#### ON THE CD

You'll find all the files you need to complete this tutorial in the folder marked Tutorial\ Expressions on this issue's CD.

#### TIME NEEDED

30 minutes

#### INFO



Motion designer and award-winning director JJ Johnstone hails from the US. To check out his work with the Rockadee Collective and other studios, visit his website at [www.jjjohnstone.com](http://www.jjjohnstone.com).

## → ILLUSTRATOR • AFTER EFFECTS

# DYNAMIC ANIMATIONS

If you want to save time creating natural movement effects, JJ Johnstone will show you how. Learn how to use parenting skills and online resources to make Expressions do more work

→ Online resources have become an invaluable asset for smaller motion studios and freelancers. Rather than traditional keyframing, you can save time writing and testing Expressions by using pre-written templates online, and apply those Expressions to objects to create random, natural or wind movements.

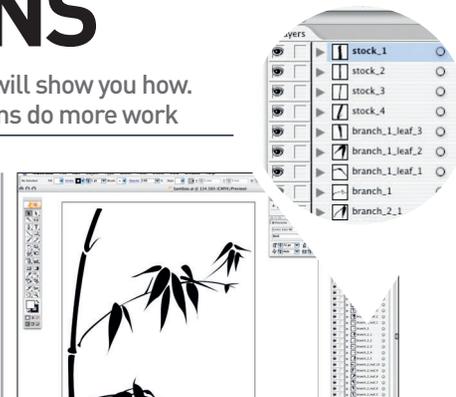
Here you will use your parenting skills to make your Expressions work for you. You'll import a layered *Photoshop* or *Illustrator* file and create a layer hierarchy using parenting. This technique is faster than keyframing – you use layers, driven by Expressions, parented to other layers, with Expressions driving them. This will

create a chain reaction in movement, and make it easy to create convincing effects, such as random gusts of wind.

These movements will add another level to your projects, creating interesting depth and an organic atmosphere. Whether you are adding trees, or objects on a pond, the movements will give the hint of an environment with wind, air and gravity.

In the following steps I will show you how to make an object move as though a gust of wind is affecting it. Feel free to use your own files and stray from my settings.

Illustration and tutorial by JJ Johnstone  
[www.jjjohnstone.com](http://www.jjjohnstone.com)



1 If you're working on your own image, separate each moving object onto its own layer in your *Photoshop* or *Illustrator* composition and save it in the native format. If you're working on the file provided on this issue's CD, you'll see that each layer has been named according to its hierarchy, from the centre of gravity out to the ends of each affected object.



**2** Import the bamboo.ai file, provided on this issue's CD, into *After Effects* as a composition. Now, using the software's Pan Behind tool, adjust the anchor points of every individual layer to the centre of that object's movement or gravity.

**ADDED EXTRAS**

Since you have taken the time to parent the entire object here, why not try adding additional effects, such as scale, with Dan Ebbert's Squash and Stretch effect. This will make the entire object grow from the base or centre of gravity out. Apply the Expression only to the base stock or centre of gravity and the parent to child relationships will make everything grow. Do a 0 to 100 per cent scale on the base object, and that's it.

#	Layer Name	Mode	T	TrkMat	Parent
1	stock_15	Normal			2. stock_1
2	stock_14	Normal		None	3. stock_1
3	stock_13	Normal		None	4. stock_1
4	stock_12	Normal		None	None
5	branch_1_leaf_3	Normal		None	8. branch_1
6	branch_1_leaf_2	Normal		None	8. branch_1
7	branch_1_leaf_1	Normal		None	8. branch_1
8	branch_1	Normal		None	4. stock_1
9	branch_2_1	Normal		None	3. stock_1

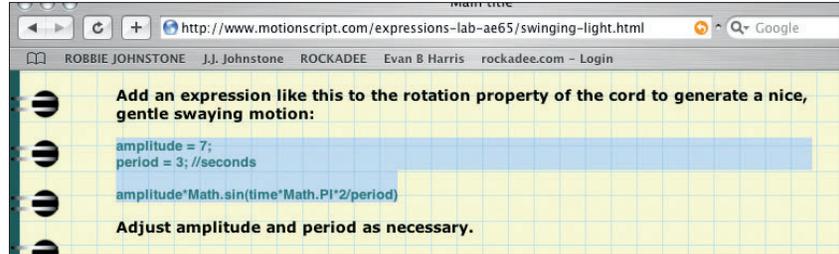
**3** Next, you'll need to set up your parent/child relationships. Start with the base of the object as the parent – its child will be the stock directly on top of it. This relationship will be repeated, as you'll see.

Layer Name	Mode	T	TrkMat	Parent
stock_15	Normal			2. st
stock_14	Normal		None	3. st
stock_13	Normal		None	4. st
stock_12	Normal		None	Non
branch_1_leaf_3	Normal		None	8. b
branch_1_leaf_2	Normal		None	8. b
branch_1_leaf_1	Normal		None	8. b
branch_1	Normal		None	4. st
branch_2_1	Normal		None	3. st
branch_2_2	Normal		None	9. b
branch_2_3	Normal		None	10.
branch_2_4	Normal		None	12.
branch_2_5	Normal		None	10.
branch_2_leaf_9	Normal		None	13.
branch_2_leaf_8	Normal		None	13.
branch_2_leaf_7	Normal		None	13.
branch_2_leaf_6	Normal		None	10.
branch_2_leaf_5	Normal		None	10.

**4** Each stock will parent the branch connected to it, and the leaves or smaller branches of that branch will be children to the branch. Make sure the parent to child relationship goes from the base or centre of gravity out to the ends or last moving object.

**ONLINE RESOURCES**

Online resources are an invaluable asset to motion designers, especially when it comes to Expressions. Most of the Expressions posted on the following sites can be copied and pasted directly into *After Effects* for use in your work. Try [www.motionscript.com](http://www.motionscript.com), [www.jjgifford.com/expressions/](http://www.jjgifford.com/expressions/), forums. [creativecow.net](http://creativecow.net), [www.toolfarm.com/forum.html](http://www.toolfarm.com/forum.html), [www.mograph.net](http://www.mograph.net), [www.lynda.com](http://www.lynda.com), [www.pixelcorps.com](http://www.pixelcorps.com) or [www.graymachine.com/tutorials.html](http://www.graymachine.com/tutorials.html).

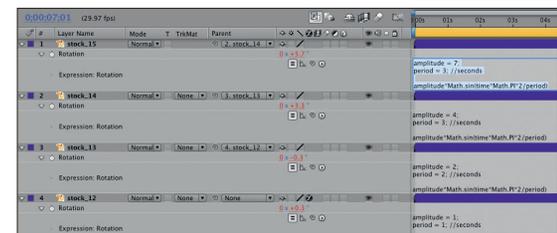


**5** Now that everything is set up, you can start looking for the right Expression for the kind of movement you want. In this case, I used Dan Ebbert's Swinging Rotation Expression, from motionscript.com's Expression's Lab. You can copy the Expression straight from his site.

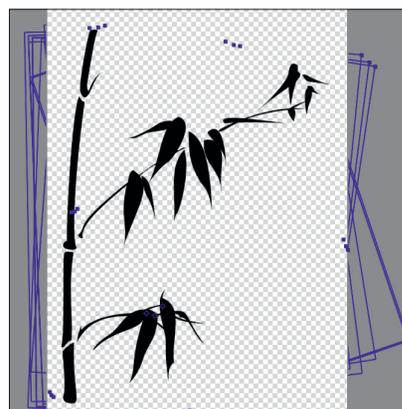
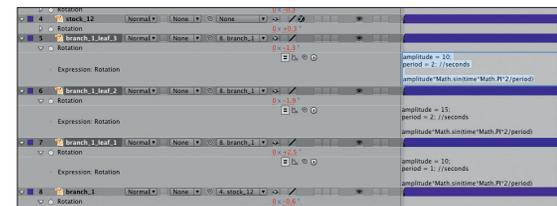


**6** Option-click the Rotation property of the base of your object and Paste the Expression. Lower the settings of the Expression to give a more subtle effect. Amplitude is the amount of rotation your object uses and Period is the amount of time it takes the rotation to decay to 0.

**7** Now apply the same Expression to each of the child stocks. Edit the Expression on each stock to increase the Amplitude and Period for each child. Make each child's Expression stronger than its parent.



**8** Apply the same technique to the each of the branches. This will give it a ripple effect. By making the base initiate the rotation, all of the stocks, branches and leaves will react.



**9** Now do a RAM preview and adjust each layer as needed. The smaller the changes from each Expression, the more subtle the effect will be, and vice versa.



**10** You should now have an object with a dynamic animation rooted in an organic or natural movement, without a single keyframe. Mix up the effect by moving around the parent to child relationships and create a variety of movements. **arts**