

## ***Flash CS4 Tutorials***

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## Macromedia Flash

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### Introduction to flash CS4 authoring environment

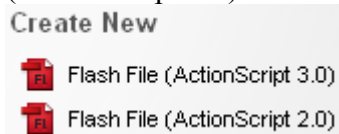
This entry is part 2 of 32 in the series [Flash CS4 Tutorials](#)

Adobe Flash CS4 – Tutorial



Introduction to flash authoring environment.

Lets start by clicking on the Middle column which says Create New – Flash File (ActionScript.2.0)

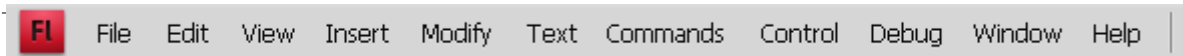


You will find the flash environment very similar to a paint brush environment, so if you are familiar with paint brush, you will very much feel at home, now on the extreme right you will find the various tool bars like Drawing tools, view tools, color tools, options tools like the picture below.

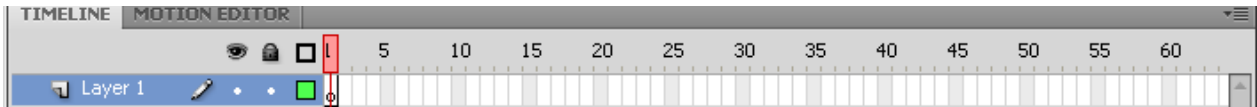


On the top you will find a menu horizontal bar, which is very similar to any menu in any other programe, as seen below.

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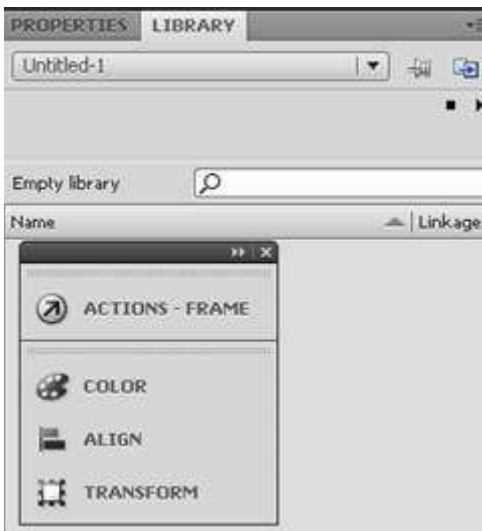


As seen in the picture below, at the bottom of the stage you will find the time line, you will see a bunch of rectangles starting from 0 to 570, on the left of the timeline bar you will find layers, on top of the layers1, there is something called timeline button, if you click on the timeline button you can hide the timeline, in case you want more space or room to work on with your drawings, etc, on top of the page, below the main menu you will find an edit bar, where all your scene will be on display, this edit bar shows where you are in the flash file.



Besides the edit bar you will find on the top right you have symbols for editing the scenes on the stage, and also for zooming in and out of the stage.

On the extreme right of the flash page, you will see some panels namely Properties, Color, Align & Info & Transform, Action, Library etc, as you can see in the picture below, you can click on the panels to make necessary changes. You can customize your panel settings by simply clicking on the windows option in the main menu, the panel will come on stage, you can drag and drop in to the right extreme like this picture shown below.



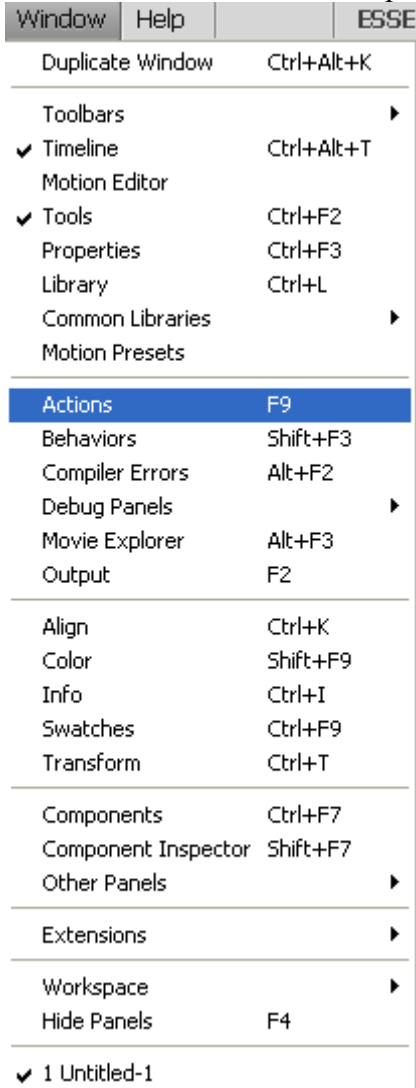
You will understand all the above menus better as you work on it, this is just an introduction to the flash CS4 Environment.

### Panels and Panel workspace in flash CS4

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This entry is part 3 of 32 in the series [Flash CS4 Tutorials](#)

By default flash CS4 has a few panels to work with, but you may need much more panels to work with, you can customize your panels by just clicking on the window menu in the horizontal main menu bar as seen in the picture below.



A list of panels are displayed under the window menu, you can simply click on each one of them to have it on your screen, sometimes it may just appear on the middle of the stage, you can simply click on the header and drag it to the right and place it in any order of your choice.

At the bottom the 3rd one from the last you will find a workspace layout panel, you will find something like a save current, by clicking on it you can actually save the panel setting for that particular layout by simply naming it to layout1, etc, the next time you open the flash, you may actually have one or two panels on the right which is set as default, so instead of setting it all up again, you can go to windows menu, and click on the layout1, etc to get back all the panels you chose to work on.

## Drawing in flash CS4

This entry is part 4 of 32 in the series [Flash CS4 Tutorials](#)

Lets learn how to draw in flash CS4, let start by drawing a rectangle and an oval, the reason why we are starting with drawing a rectangle and a oval is because both these have a stroke and a fill. Understanding strokes and fills are important to draw in flash CS4 because they are treated as separate objects and not treated as one object.

Using the oval tool on the right hand tool bar menu like this one



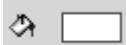
draw an oval on the stage, if you notice to the right bottom of this oval tool is a small triangle, when clicked on it, you will be able to select a rectangle tool, oval tool, Polystar tool etc., As you click on the oval tool, just take a look at what happens to the options panel and the properties panel on the right of the screen.



While you see the Stroke, you can either type a number in the white box, or you can simply drag the stroke button to and forth to get the size of your stroke, then you see the style, here you can select the kind of stroke weather you want a solid, dashed, dotted kind of stroke, then below is the scale, if you want normal, horizontal, vertical or none.



This is the stroke options



This is the color options,

You can use the stroke option and configure the settings or simply click on the fill color and configure the settings.

On the main menu we have a button which looks like a magnet like this



You can use this button to simply snap the objects in place.

Lets draw an oval on the stage, with the oval tool selected, lets say we want to give it a red fill, easy enough we simply go to this fill color and select red here.



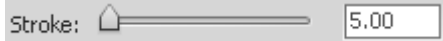
And lets say we want a blue stroke,



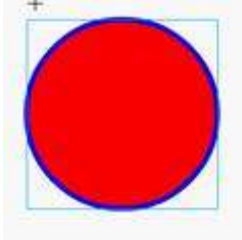
If you really want the stroke to stand out, lets make it thicker than it is, by simply dragging the

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arrow to its right or by type in a figure in the box.



Lets draw an oval on to the stage, so click on the oval button and go to stage and draw an oval, as you drop and drag, you will notice that as you drag it to a circle, it will snap into place, now release the mouse button, you will find a perfect circle with the colors you chose.



You will see a blue bind box along the circle, this means that the circle has been selected on stage. You can make changes to this object, while it is selected, by simply choosing the fill color and the stroke color. If you don't want the circle to be selected on stage, simply press escape button on your keyboard, it will deselect the circle on stage.

By default the snap object button is turned on, while selecting an oval tool, now you can draw a perfect circle by turning off the snap button by simply clicking on it, the background will disappear on it.



Now draw the circle by dragging the cursor on the screen and dragging it down by simply holding on to the shift key on the keyboard,

You can select all objects on the stage by clicking on each, or by simply hitting ctrl+A key in your keyboard and delete it by hitting backspace.

Now if you want to draw a circle exactly in the centre of the stage, you can draw by simply pressing the alt button on the keyboard and dragging it, it will uniformly expand in all directions.

Now lets make a rectangle on stage, you can click on the right bottom of the oval tool and you will find a rectangle, click on it and draw a rectangle on stage.



The rectangle tool works very similarly like a circle or oval tool, you can also use the snap objects to draw a rectangle, with snap objects on, you can release the mouse button when a circle appears at the corner of the square, it becomes a perfect square.



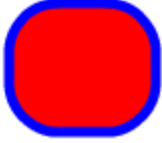
There is another panel called rectangle options on the right panel space, if you want rounded edges to your square you can use this rectangle options and type a number in the cells provided to get the corner rounded edges. Like illustrated below:

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You will find something like this



Sometimes you will not know what exactly should be the rounded edges on the rectangle or square, there is another way to do this, you can simply click on the rectangle tool bar and draw a rectangle on stage, and do not release your mouse, you can now simply use the up and down arrows to know how much of rounded edges you want to have in the rectangle, this will give you an indication what your square or rectangle will look like with rounded edges straight away.

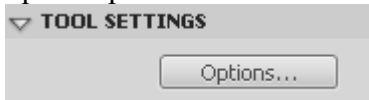
### Use of polystar tool in flash CS4

This entry is part 5 of 32 in the series [Flash CS4 Tutorials](#)

We will learn how to use a polystar tool in flash CS4, this tool is somewhat similar to a circle or a rectangle tool that you are creating basic shapes with it, but it has a few options that we need to highlight for you, with a polystar tool you can create two things, you can create polygons, a triangle, hexagon, octagon etc, or you can draw a star shape with it.



The polystar tool is hidden under the small arrow in the right bottom of your rectangle tool, you can simply click on the arrow and drag the cursor to the polystar tool. You will notice to the properties panel that the stroke and fill color are already there, apart from that you will find an options panel to work with.



When you click on options button a pop up will appear on the screen, like the pic below.



As you select the style you can either choose from a polygon or a star style, lets say you choose a polystar, then you can select the number of sides, if you choose 3, you will land up drawing a triangle, if you choose 4, you will land up drawing a rectangle or square, if you choose 5 you will get a polygon, likewise you can choose 6,7,8,9,10 etc

Assuming you have selected a polygon and selected 5 sides to it, let's just draw a polygon on stage.



You can move it around by holding on to shift button and dragging the cursor around.

Now let's draw a star on stage, click on the style and select star from the tool settings as shown in pic3. and select star, let's say you want a 5 side star like how the kids usually draw, keep the point size to 0.50 and draw one, again you can position your star by holding on to shift button on your keyboard and releasing the mouse when you are convinced about the positioning.

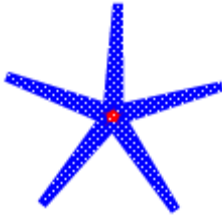


Let's now make the point size to 0.10 instead of 0.50 and see how the star looks



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It has a much different effect, just by changing the point size.  
Likewise try making the point size to 0.90 instead of 0.10 and see what happens.



You will see the centre much bigger, the easier way to remember is, the bigger number of point size is the fatter the star. Another point to remember is your point size will not get bigger than 0.99, so if you try 5,15 or even 25 point size it will much look like the point 0.90 point size star.



Lets again create another star by clicking on the number of sides as shown in the options panel in pic3. say make it 9 points and keep the point size to its default 0.50 and see how it looks.

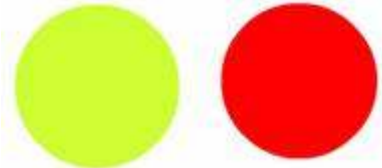


So a polystar tool will be of much help apart from an oval or a rectangle tool,

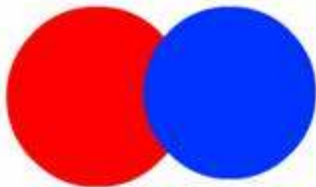
### Object drawing Mode in Flash CS4

This entry is part 6 of 32 in the series [Flash CS4 Tutorials](#)

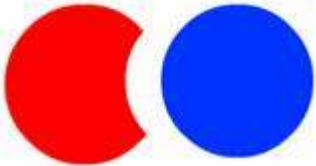
Lets draw a circle on stage and similarly with another color chosen from the color panel box draw another circle on stage, you will find flash CS4 different from Flash Professional, in the sense both the circles are on drawing object mode and you can change the color of each the way you want, unlike flash professional, the second object drawn on stage will be considered as a grouped object and you cannot change the color, if you want to change the color you can by clicking on the grouped object, but in Flash CS4 you can change the color, use a stroke, change the color of stroke etc.,



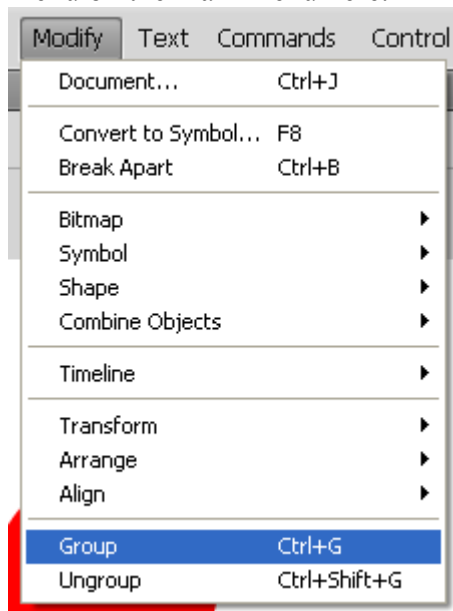
Let's draw one circle first and draw the second one overlapping on the first circle.



and then moving it away from the first one, see what happens.



You can avoid this by selecting on each circle and clicking on the group option under the modify menu on the main menu here.



Once you group each object, you can separate them even if there are overlapped on each other by not cutting them.

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You can use the object drawing mode switched on which is found on the options panel on the main menu on the extreme right bar and draw, then flash CS4 will treat circle a separate drawing.

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### How the Line tool, Pencil tool, brush tool and pen tool work in in Flash CS4

This entry is part 7 of 32 in the series [Flash CS4 Tutorials](#)

It is very important to understand how the various drawing tools work in flash CS4, let me just take you through on some of these, on the extreme right on the menu, you will find the various drawing tools

The line tool is looks like this,



when you click on the line tool and draw on stage you can go any direction, but if you want to draw a square lets say, you can draw a straight line downwards, you will see that by default the snap tool is selected and the line will snap in place, when it is perfectly straight, like wise to the right, up and left you will join the first point, you can draw a 45 degree line, and it will snap in place. This is a very important drawing tool in flash CS4.

The same way you can draw with pencil tool, when clicked on the pencil tool which looks like this below,



You will see that the property setting are just a stroke color, you can draw a zig zag on stage and notice that you can only select a color which is of stroke, and may not give you the option of the fill color.

In the option menu box you have two options like this below



The top one is a smooth curve and the bottom one is a straight line, assuming you have drawn a zig zag on stage with a color red, selecting the drawing on stage, as you click on the smooth button the shape of the zig zag will smoothen, and the other straight button works differently than the smooth button, when selected the drawing, and clicked on the straight line, it will straighten the line to a virtual straight line running downwards.

The next tool is the brush tool, which looks like the one below,



As you click on the brush tool, you will find that in your properties panel, you have only a fill color and not a stroke, this tool works very much like the pencil tool, with the smooth option tool and the straight option tool working with the brush tool very similarly like the way it works with pencil tool.

Another important tool is the pen tool, this tool looks like this below



As you take the pen tool to the stage you will find that it make a dot with a florescent green, and once you release your mouse and make the second mark on stage, you will find a second point, and the first and second connect, this will happen till you finish all your drawings on stage and touch the start point, when pressed escape you will find the shape you drew, and accordingly fill the color of your choice, this pen tool will draw straight lines, if you want curved strokes, you can

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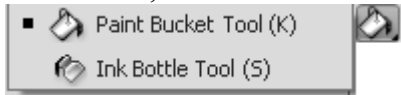
simply drag the mouse with the cursor moving either ways and then connecting the points to the starting point.

### How to use Ink bottle and paint bucket tool in flash CS4

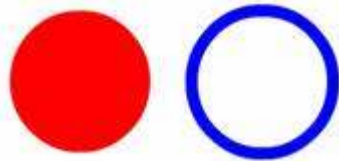
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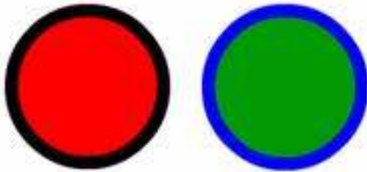
On the extreme right of the screen in flash CS4, in the main menu you will notice the paint bucket tool,



at the right bottom of this tool, you will see a triangle, when you click on this triangle you will get the ink bottle tool, Now lets just draw a circle with no stroke on the stage, so select a color, lets say red, and turn the stroke off and draw a circle on stage, now draw another circle with no fill and only a stroke color selected, say blue on stage, lets say you have something like this on stage,



You can click on the ink bottle tool as shown in figure 1, select a color, lets say black and click on the red circle drawn, you will get a black stroke on the red circle drawn, similarly click on the paint bucket tool, select a red green fill and click on the blue circle drawn, you will find the blue circle with green fill in it, like you see below.



This is the difference between paint bucket tool and ink bottle tool.

### How to manage layers in Flash CS4

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This entry is part 9 of 32 in the series [Flash CS4 Tutorials](#)

All this while we were working on flash CS4 on stage on a single layer, now lets just draw a simple website design by creating a rectangle green color menu bar in layer1, by double clicking on the layer1, you will be able to change the name of the layer, say call it menu,



On the left bottom of this picture above, you will find an add layer button, you will be able to create layers by simply clicking on it, if you notice very closely that there is a dark grey box in the time line of the layer header, that means we have put in an object on stage, similarly create another layer and make another rectangle yellow box on top of the page, similarly create another layer and write your company name on it, you can double click on each layer and name them differently, you will notice that you have three grey boxes with a black dot in each layer on the time line 1. this is to make sure that each layer does not interfere with each other.

You can make each of these layers invisible by simply clicking on the eye button in the respective layer



in case you want to edit the bottom layer and you are unable to do it, you can also click on the lock button like the one below



to make sure, that you don't move it around. So get used to using the pad lock icons by simply clicking to make it invisible and lock them and by clicking on it, to make it visible and unlock them.

Your drawing will look something like this on three layers.



So you know how to manage layers in flash Cs4, I would recommend that you always label your layers, suppose you draw a whole lot of drawings on stage, and later if you want to edit it, you may not know what each layer contains, again you can delete any layer any time by simply click on the layers, selecting it, and clicking on the trashcan found on the right bottom of pic1, it will look like this



Notice one more important thing while working in flash, if at any point you think you want to undo, you can simply click ctrl+z on your keyboard, and you can get it back.

There is another button between creating layers and deleting layers in the pic1. these are adding folders, by clicking on it, you can add a folder and store all your files by dragging and dropping them into that folder, and naming that folder header folder.

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### How to make an image big on rollover in flash CS4

This entry is part 10 of 32 in the series [Flash CS4 Tutorials](#)

How to make an image big on rollover in flash CS4.

First of all you need to have the same image of two different sizes and save it in your directory.

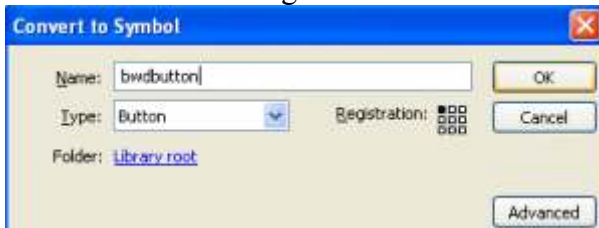
Open flash CS4, and import an image on the centre stage, by going to the main menu file-> Import -> Import to Stage, as shown below,



In this case I have imported the smaller sized image to the stage. You can save your file, in this case I have saved it as rollover and it will by-default be saved as a .fla file.



Now click on the image and Press F8 to create a button, call it a name and press ok!



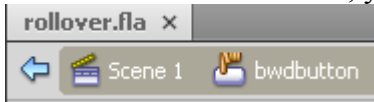
You will see a blue outlined with a small circle in the middle of the image as shown below.



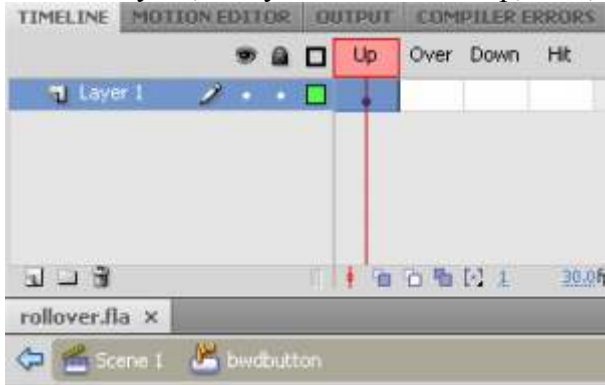


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Double click on the button, you will enter the button mode as shown below.



Your button mode will have something like this shown below, your layer will be called by default Layer1, and you will have an up, over, down and hit area in the button.



Click on the over and right click your mouse and create a blank keyframe like this shown below



Repeat the same for the hit area also, now as you scrub the timeline over all the four modes you will be able to see the orange tag moving with it.

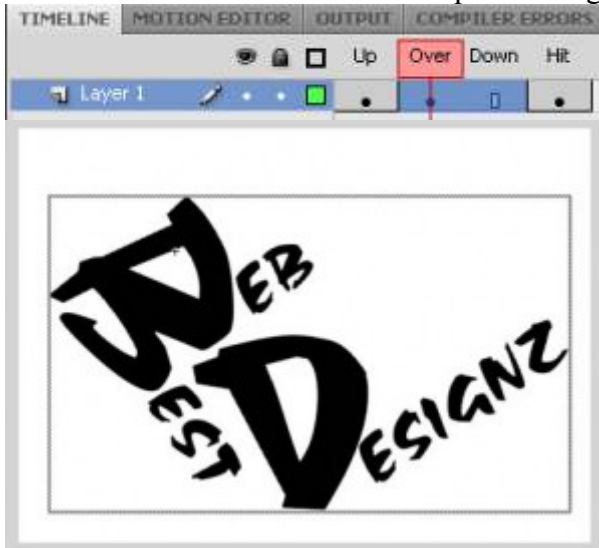


Now click on the hit area and draw a rectangle in the centre of stage as shown below.



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Now click on the Over area and import the bigger image to the centre of stage as shown below.



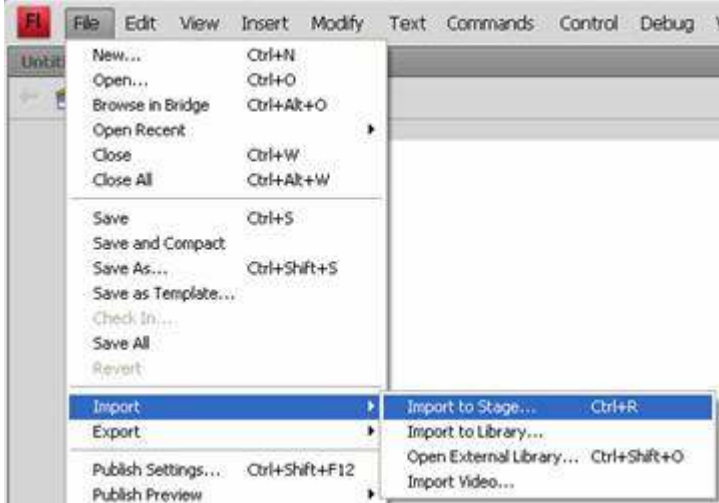
Now test the movie by going to the control menu on the main menu and selecting the test movie or you can also press Ctrl+Enter, a .swf file will be created, in this case rollover.swf will be created and you will notice that the image becomes larger on rollover.

That's it, you now know how to make an image big on rollover in flash CS4.

### Creating Mask in Flash CS4

This entry is part 11 of 32 in the series [Flash CS4 Tutorials](#)

A mask is simply to hide or reveal certain parts of a layer, for lets say we import an image on stage, so go to File -> Import -> Import to stage like the one here



You have imported an image from your image file to stage, lets say you want to reveal a small portion of this image, you want to hide most of the picture, we need to create a mask to do that in Flash CS4, the way we need to do that is by creating another layer above the picture layer, lets first lock the picture layer and rename layer1 to picture and create another layer and name it mask, Now lets draw a mask, select the mask layer and draw a circle on stage by selecting a bright green color, it doesn't matter what color you select, so draw the circle on stage for the picture you actually want to see, the mask is going to act as a flash light so whatever it touches is what we are going to see, having drawn a circle for the picture you want to see, you will see something like this

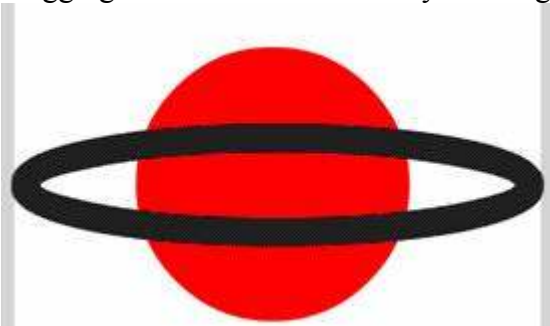


By doing this we actually don't see the picture what we really wanted to see, the mask is not done yet, now click on the mask layer and right click on your mouse and select mask, As soon as you do that you can see what we wanted to see like the picture below.

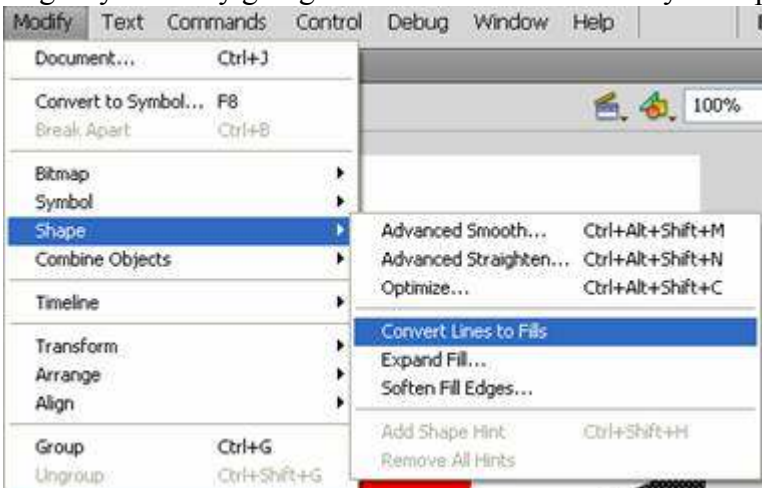
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To do more practical illustration, let's draw a planet with a ring around it, so first draw a red circle, select the oval tool and select the color red and draw a circle on stage and call it planet in layer1, lock layer planet and insert a layer just above layer planet and call it rings, so by choosing a oval tool, we don't need a fill color but we need a stroke color to this ring, make the thickness of the ring to 30 and draw a ring on stage, by selecting the oval shape and pressing alt and dragging it around the red circle you will get something like this below,



now make the ring to a fill instead of a stroke, we can do so by first select the black ring in the rings layer and by going to the main menu-> Modify->Shape-> convert Lines to fills.



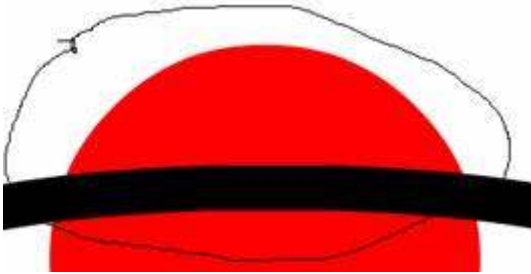
We need to create a mask and hide this section like this one here



Remember that while creating a mask you need to create a mask that you want to reveal and not

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the parts you want to hide, so we don't want the mask to touch the picture above but everything else other than that, so let's create a new layer and call it mask right above the rings layer, now copy the rings layer and paste it in the mask layer by going to the rings layer, select the ring, press ctrl+c to copy it, lock the rings layer, go to the mask layer and paste it exactly the same place as it was in the rings layer by pressing Ctrl+Shift+V, it will paste the rings in exactly the same position as it was in the rings layer, now be very careful and follow the step very carefully, let's lock the mask layer for a second, unlock the planet layer and using the lasso tool just copy the top part of the planet that is touching the ring, we are actually trying to cut out the ring that is supposed to go behind the planet,



We have made that selection now copy it from the planet layer by pressing Ctrl+c then lock the planet layer, go to the mask layer and unlock it and then paste it in the mask layer by pressing Shift+Ctrl+V, let's make the planet layer and the rings layer invisible by clicking on the eye icon on each layer to see what we have done in the mask layer.



Now that you have pasted the red cap which is interfering with the black ring you can select the red cap and delete it by pressing delete button, then your mask layer will look something like this below.



Now there we go, we see only the portion of the ring we need to see, now we can make all the layers namely, planet, rings and mask layer visible, but still you will see picture

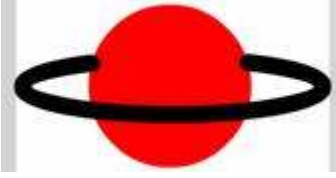


That's because we have not applied mask to the mask layer, now click on the mask layer, right

## Macromedia Flash

click the mouse and select mask, that if you image will look something like this.

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## Macromedia Flash

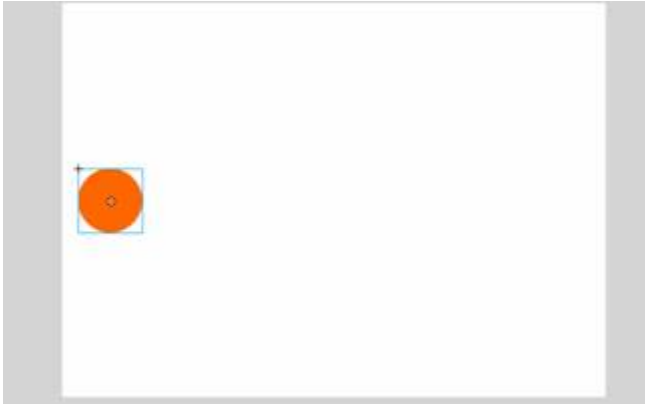
### Moving Ball Animation in Flash CS4

This entry is part 12 of 32 in the series [Flash CS4 Tutorials](#)

In this tutorial you will learn how to move a ball from left to right,

When you open flash CS4 you will by default be placed in layer 1 and any drawing on stage will be drawn in the first frame of your timeframe.

Now lets draw a ball on stage, so click on the selection tool, click on the oval tool, then in the properties panel, under the fill and stroke panel, switch off the stroke and select any color, in this instance say orange, and draw a ball on the left of the stage by pressing the shift key and dragging the mouse,



you will notice that the first frame on the timeframe gets darkened, then let's say we want to end the keyframe to end at Frame12, so go to frame12 and press F6 to add a blank keyframe. Now on the new keyframe (Frame12) drag the ball by pressing the shift key so that it stays on the same line and drop it on the right,



now we want to create a classic tween in-between these two keyframes,



## Macromedia Flash

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so click anywhere between 1 and 12 keyframe, click the right button on your mouse and select create classic tween, you will notice the keyframes from 1 to 12 changes color from a grey to a light blue.

Now if you want to see how your movie looks without scrubbing along the time line, you can simply do this by pressing Ctrl+Enter. You will see the orange ball moving from left to right and will repeat this over and over again, this is because flash by default has been looped to perform this function. If you want to end up in the exact same position as the starting position, go to frame 24, copy the ball in the first keyframe by pressing Ctrl+C and click on frame 24 and press F7 to insert a blank keyframe, now make sure that 24th keyframe is selected and paste it in the same position by pressing Ctrl+Shift+V, now you can right click and select create classic tween. If you test your movie by pressing Ctrl+Enter you will see that the orange ball is moving from left to right and back continuously.

## How to create a shape tween in Flash CS4

This entry is part 13 of 32 in the series [Flash CS4 Tutorials](#)

A shape tween is basically to morph one shape to another, for example we can draw a oval shape on stage and morph it to a star on stage. Now lets draw a oval shape on stage, by selecting the oval tool, draw a oval shape on stage by choosing a fill color and do not use a stroke color. When you want to morph two different shapes on stage, make sure that both the shapes are on the center of the stage, you can do that by selecting the shape, click on the windows tool bar and click on Align, you can select the horizontal and vertical align so that the shapes are centered on stage, now go to frame 12 and press F7 to create a blank key frame, now by selecting the polystar tool, select the star with lets say 8 points and draw a shape on the

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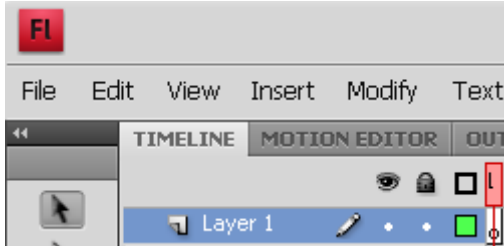


## Macromedia Flash

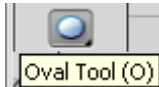
centre of stage, you can repeat the align tool bar to make sure that the star drawn on stage on the twelfth key frame is centered. Now click in-between the two key frames and select the shape tween, now press Ctrl+enter to test your movie, you will notice that the oval shape slowly starts converting into a star shape.

How to create a shape tween in flash CS4.

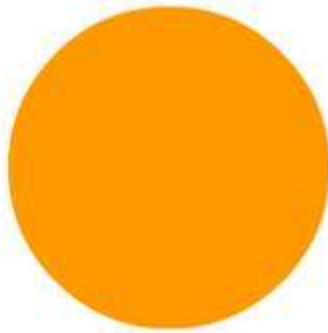
Shape tween in flash is basically a way to morph one shape into another shape, for example we will take an oval tool and draw an oval shape on stage and morph it to the shape of a star.



We will start in frame 1 and grab the oval tool



and draw a circle in the center of the stage like this one below.



Make sure it is snapped right in center of the stage, because if you want to morph from one shape to another shape, we do not want to be moving around much while we are doing that. So go to your align panel (Ctrl+k) on the right and choose the horizontal and vertical center tool and it will make sure that it is aligned to the center of stage like this one below



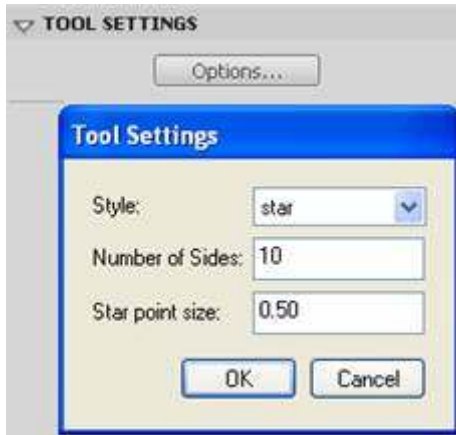
So, now that you have centered it to the stage, so when you create the next shape you can do the same alignment so that it centers to stage. So let us say that we want it to take one second ie:12 keyframes. So go to the 12th keyframe and hit F7 to add a blank keyframe there. The reason you hit F7 is because you do not want the orange circle anymore. Let us draw a star in frame12, so

## Macromedia Flash

choose the polystar tool



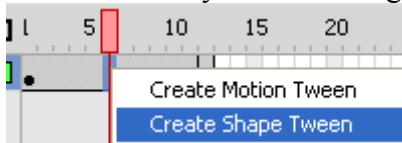
and to your right under the tool settings click on options and change the tool settings there to star and make the number of sides to 10 and leave the star point size to 0.50, now press OK.



Now draw a star on stage, and center it on stage by using the align horizontal and vertical alignment as discussed above, so that it will be in the same spot as the circle is in on frame 1.



So we have drawn our beginning and ending keyframes, so we know how it is going to start up and how it is going to end up, now we need to create a shape tween. So click anywhere inbetween 1st and 12th keyframes and right click on your mouse and select the Create Shape Tween.



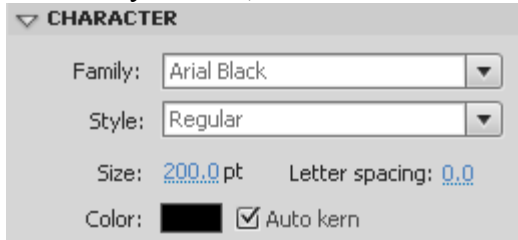
Now scrub across your time line to see how it works. You will notice that your circle morphing into a shape of a star. And that is how you create a shape tween in flash cs4.

## Macromedia Flash

Let us do something a little more difficult, like morphing one letter into another, so open a new document and start fresh.

Let us morph letter “B” to letter “W”

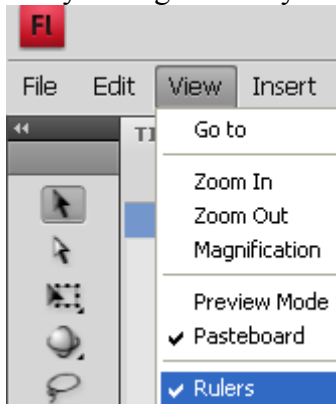
So select your font, I have chosen font Ariel, Size =200 px and color Black as shown below.



Choosing the text tool write letter “B” on stage on frame 1 like this one below.

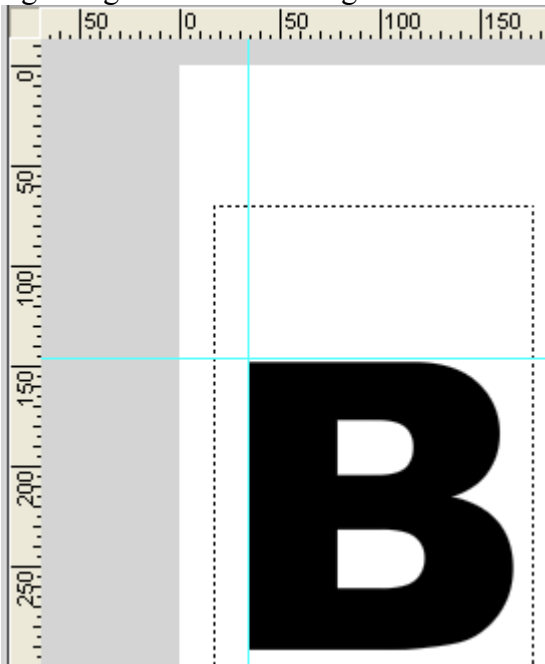


Now break it down to a raw shape using CTRL+B, now that you have a raw shape on stage, you can morph it either on the center of stage or to any part of the stage, in this case let us morph it, to the left of our screen, so let us pull down some rulers and mark the exact place where we want it to morph, so go to View on the main menu, and select rulers, click on the rulers and drag it to the stage, you will see a fluorescent blue line you can make your own markings and you can have as many ruler guides as you want on stage.



## Macromedia Flash

you will find a scale on the left and top of your stage, just click on the scale and drag it down and right to get the lines on stage like this one below.



Now go to frame 12, and click on F7 to create a blank keyframe, now chose the text tool and write “W” using the same font, size and color. You will have “W” on stage in frame12. now select any keyframe between 1 and 12 and right click on your mouse and select the select the shape tween, now as you scrub across the timeline you will see the shape of “B” changing into “W” and you may not like the way you are animating, you can actually morph it exactly the way, you intend to.

For that you have to bring in the shape hint on to the letters, you can do so by clicking on the Modify menu on the main menu, select shape and click on the Add Shape Hint, or the shortform is Ctrl+Shift+H



Go to frame1 and press Ctrl+Shift+H, you will find a red button, now click on it and drag it to the top left of the letter “B”, now go to frame12 you will find the same red button, click on it and drag it to the top left of the letter “W” , as you do this you will find that the red button in frame12 turns green, that means Flash CS4 is recognizing the shape hint you intend to do, you can have as many shape hints as you want, ideally you would like the top left, top right, bottom left, bottom right and the center, to have a smooth animation from “B” to “W” after you are finished scrub the timeline and see the effect, it is very much the way you intended to be.

That is it, you now know how to do shape tween in Flash CS4.

### **How to create a motion guide in Flash CS4**

This entry is part 14 of 32 in the series [Flash CS4 Tutorials](#)

We have already learnt how to move a ball from the left of the screen to the right, now lets learn how to move an object from the left to right not necessarily in a straight line but in a zig zag motion, let take an object aeroplane on stage and we want it to go from the left to right in a zig zag or a smooth curve motion, we can do that by using a motion path or guide in Flash CS4, we do that by drawing a stroke or curve on a different layer and orient to path,. lets take an object for example like this aeroplane on stage and save it as a graphic symbol called plane, now call this layer1 aeroplane layer, now you must create another layer called guide layer on top of the aeroplane layer.

## Macromedia Flash



Lets go an lock the aeroplane layer and also make it invisible by clicking on the lock and eye icon on top of the layers, and work on the guide layer, in this guide layer on frame1 draw a curve in the form of a snake shape, it doesn't matter what color you use, just draw a curve in a zig zag manner going from left to right of the stage like the one below.



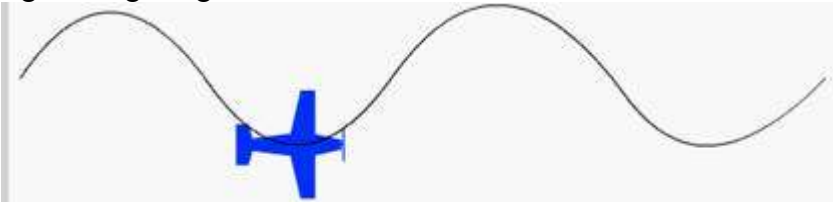
Now we need to attach this aeroplane to the guide layer, so unlock and make the aeroplane layer visible, and lock the guide layer above the aeroplane layer by clicking on the lock icon. Now with snap objects turned on, click on the little circle in the middle of the aeroplane and take it to the starting point of the guide, it will automatically snap in place, lets make a motion tween and snap it to the right side of the guide, so lets create a new keyframe by pressing F6 in frame 24, now when you look at the stage from frame 24, we cant see the guide layer, now where has the guide layer gone, we need to insert keyframes in the guide layer because only frame 1 has the guide lines showing, but frame 2 to frame 24 does not have the guide lines showing, so go to frame 24 in the guide layer and press F5, now you will see the guide layer visible in the entire animation like the one below.



So in frame 24 in our aeroplane layer we need to get this aeroplane on the right side, so go to frame 24 and place the aeroplane to the right by clicking in the middle of the aeroplane grab it and drag it till it snaps into place. So in frame 1 it is on the left side of the guide and in frame 24 it is on the right side of the guide like the one below.



Now make a motion tween by clicking in the middle of both the layers and select the motion tween. Now check your movie clip, you will notice that the aeroplane is going from the left to the right along the guide like the one below.

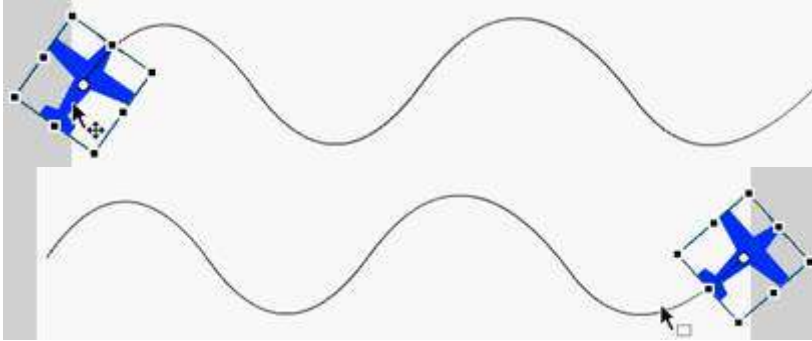


If you test you movie, the best thing about this guide layer is that it does not show up while running the movie clip. While you run the movie clip, although you see the aeroplane going along the path directed, but it is a little weird that it is wiggling back and forth, and that's not the

## Macromedia Flash

way an aeroplane flies.

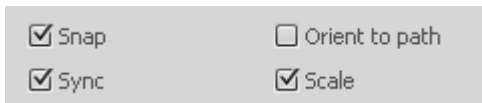
Let's use the free transform tool and go to the first frame and rotate the aeroplane in the way the guide is moving, also do this in the last keyframe (keyframe 24) and position it in the way the guidelines end like this one below.



When you test your movie clip, the animation is still not working properly as you see below



To get this properly click anywhere between your first and 24th key frame and go to your properties panel and you will notice that there is something called orient to path,



just check that option and test the movie clip.



If you find the animation too fast, that is the aeroplane moving from left to right too fast, you can insert some layers in-between the first and twenty fourth by clicking and dragging both the layers and pressing F5, let's say we want to take it up to frame 48, so insert frames in both the aeroplane and the guide layer till it reaches frame 48, now test your movie clip, you will notice that the aeroplane animates much slower and also looks good.

That's it you have learnt how to make a motion guide in Flash CS4.

### **Learn how to create a bouncing ball in Flash CS4**

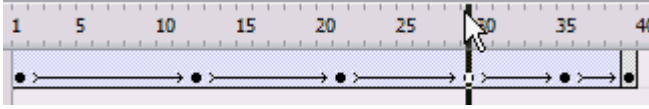
This entry is part 15 of 32 in the series [Flash CS4 Tutorials](#)

Lets draw a ball on top of the stage, we are basically trying to bounce the ball on stage, so we need to know the ground level or the bottom, you can use rulers by chosing from the view menu bar and activating the rulers, now mark your bottom level where the ball should bounce down. So lets jump up to frame 12 and press F6 to add a new key frame and holding on to shift (so that it stays in the same line) drag the ball down to the markings. Create a classic tween in between frame 1 and frame 12, now try running the movie clip, you will see the ball going up and down on your screen. Now we are going to take the ball up, not as high as we started with, so go to frame 21, hit F6 and pressing on to shift key drag the ball up, a little below from where you started in frame 1. Again to up to frame 29 press F6 and drag the ball to the ground level, again



## Macromedia Flash

go to frame 35 press F6 and drag the ball slightly higher from ground level, then go to frame 39 and end the ball on the ground level, now go between frames, right click and insert a classic tween.



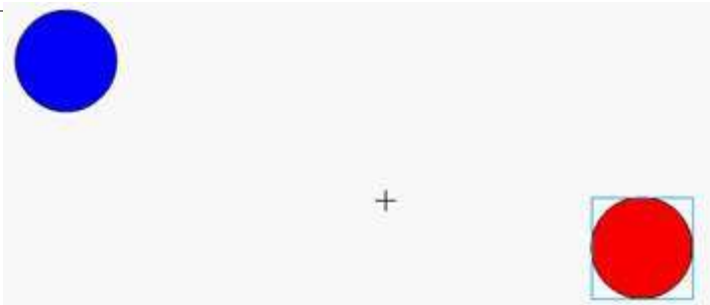
When you test your movie clip you have a bouncing ball.

## Learn how to put multiple classic tween on stage at the same time in Flash CS4

This entry is part 16 of 32 in the series [Flash CS4 Tutorials](#)

Lets say we want to animate two balls one in blue to go from left to right and the red one to animate from right to left as shown below.

## Macromedia Flash

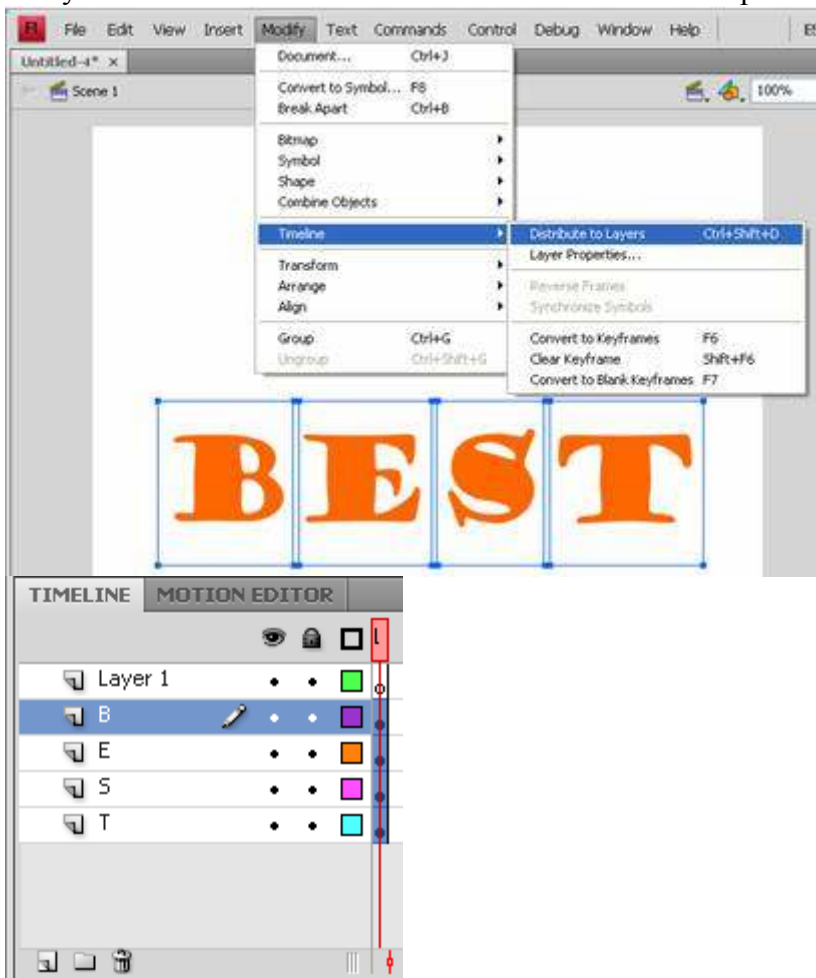


lets draw one blue ball in Frame1 one in blue starting from the left in layer 1 and make another layer2 and draw a red ball starting from the right like the one shown above. Now move to frame 20, hit F6 and in layer 1 using the shift key drag the blue ball and drag it to the right and in layer 2 using shift drag the red ball to the left.

We are trying to animate the blue to the right and the red to the left. Now select both the layers and create a classic tween and test your movie, you will notice that the two balls and moving on either directions.

This is really helpful when you are creating a text using multiple classic tween.

Lets say we want the letters BEST to drop on stage one at a time, so using the text tool type best on stage, since we want each letter to fall separately by itself we need to break each letter separately, we can do so by selecting all the letters and pressing Ctrl+B, having done this we need to take the 'B' separately the 'E' separately and so on to different layers, we can do so by selecting the entire text, and go to modify menu, timeline and distribute to layers. In your time line you will see that BEST each letter is distributed to separate layers as shown below.



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You will notice in the above picture that the layer1 is also appearing, we may not need this layer, and you can delete this by selecting layer1 clicking on the trashcan below. Now lets go upto to frame 40, hit F6 to add a new keyframe, lets take frame 40 to be the ending keyframe where you want all the letters BEST to end up. Now let's go letter by letter, first layer T click on the first keyframe and nudge the letter 'T' upwards like the one below, like wise do it for 'S' "E" and 'B'



After you have done this click between frame 1 and frame 40 selecting all the layers and create a classic tween, and test you movie clip by pressing Ctrl+Enter.

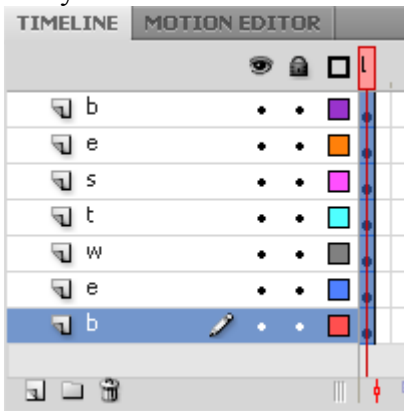
## Learn Complex Text Animation in Flash CS4

This entry is part 17 of 32 in the series [Flash CS4 Tutorials](#)

Lets say you want some letters on stage which you want to animate which zooms in from the left, one at a time. So selecting the text tool, type BEST WEB on stage and selecting all the letters press Ctrl+B to break them apart,



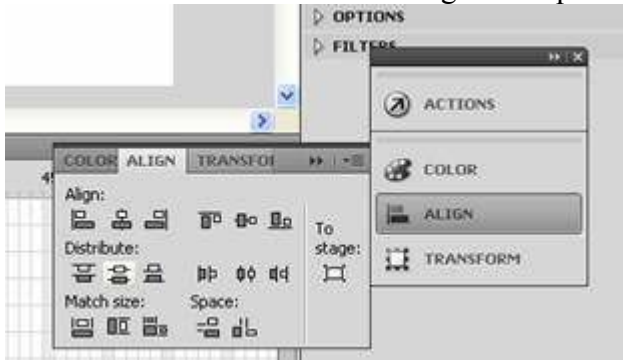
then distribute to layers by going to modify menu, timeline and distribute to layers. In your time line you will see that 'BEST WEB' each letter is distributed to separate layer as seen below.



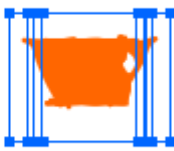
Lets say we want all the letters to animate to stage, go to frame 6 and hit F6 to insert keyframes. Now go to frame 1 select all the letters and put them all together in one place, by going to the

## Macromedia Flash

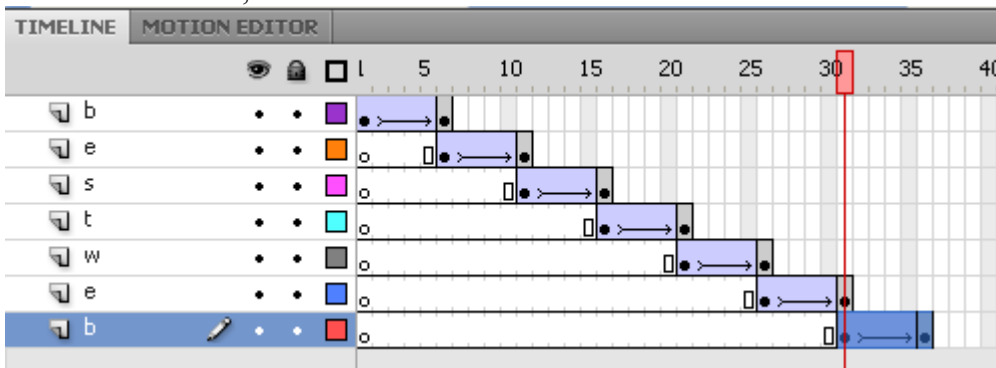
window menu bar and click on align and squashing them all to gether.



you will see something like the one below, don't panic



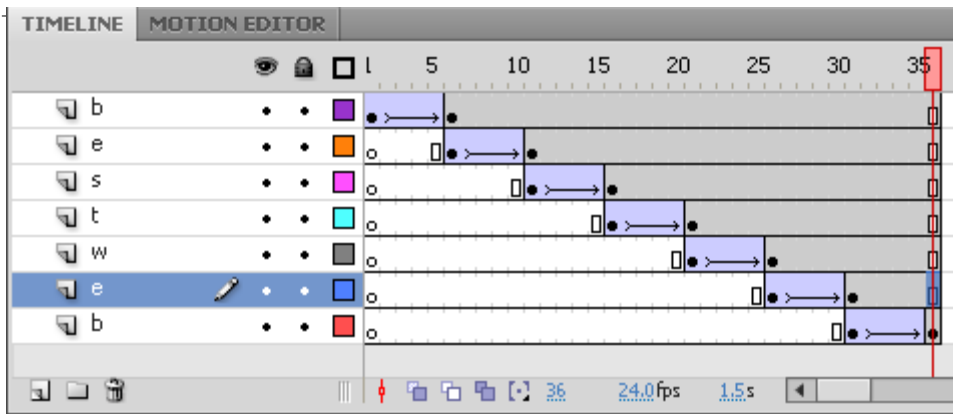
And take this entire letters which is squished up to the extreme left by pressing shift and dragging them out of the stage. Now we are going to animate the "BESTWEB" on to the stage, so click inbetween the frames in all the layers and create a classic tween. Now when you run the movie clip you will notice that all the letters come on to the stage together, this is not what we are looking for, we want the letter 'B' to come in first, then the 'E' then the 'S' and so on. We do that by selecting all the keyframes in each layer and pushing it further away from the previous letter like the one below;



This is done so that the letters are staggered, that the 'B' comes in first, then the 'E' comes in next, then the 'S' comes after that and so on, when you run the movie clip at this point, you will see a problem that when 'B' comes in first and as the 'E' comes in next the 'B' starts to disappear, that is because the letter 'B' ends at frame 6, this will happen to all the letters while you animate because when the previous one ends the next one begins.

To fix this problem we have to go to the very last layer ie: 'B' layer here and insert blank keyframes to all the layers. We do so by clicking and dragging all the layers from the last layer upwards and pressing F5 to insert frames like the one shown below.

## Macromedia Flash



If you run the movie clip by pressing Ctrl+Enter you will notice that the letters land on stage one at a time in a proper sequence, that's it you now know how to do complex text animation in flash CS4.

## Learn Create Animations involving Masks in Flash CS4

This entry is part 18 of 32 in the series [Flash CS4 Tutorials](#)

There are two type of animations one where the mask itself is moving and the other one is where something is moving behind the mask.

Animation where the mask itself is moving:

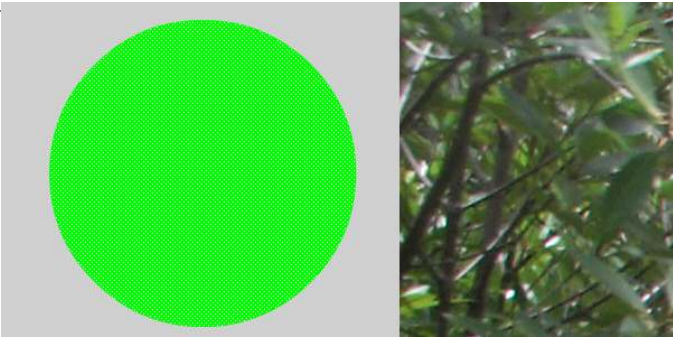
Lets go and import an image on stage, so go to File on the main menu>Import> to stage, pick an image from your image folder and import to stage, lets rename this later to Scene and lock the scene layer.



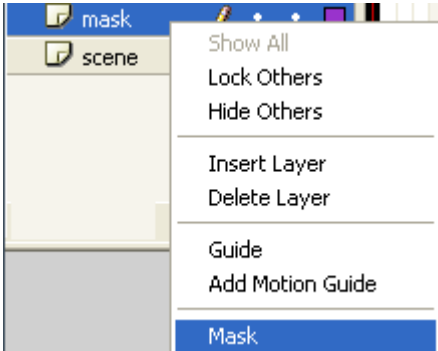
Let's create a new layer above the scene layer and call it mask. Lets go an create a spot light to the extreme left on frame 1 of the mask layer, so select the oval tool and pressing shift drag it selecting a fluorescent green with no stroke color, remember the color of the spot light has no relevance at all, so it does'nt matter what color you choose for a spot light, you will see something like the one below.

## Macromedia Flash

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We need to apply this as a mask, so click on the mask layer and right click and apply mask like the one below.



Now remember when you apply this mask to this layer you will see nothing at all on the stage, the reason for that is the mask itself is not touching the scene, if you test your movie, you will see a blank white screen.

Now we need to animate the mask across the stage, so lets unlock the mask layer, click on the mask itself on the stage, we need to animate it to the extreme right of the stage, so we need to give it an ending keyframe, lets say we want this animation to take 3 seconds, so go to Frame 36 in the mask layer remember and press F6 for your ending keyframes, so we must drag the spot light over to the extreme right, so we need to create a classic tween in the mask layer, so click inbetween frame 1 and frame 36 and right click and select classic tween.

Now we need to make sure that the scene layers remains visible through out the animation, right now its only available only on frame1, so lets go to frame 36 and press F5 to insert Frames. Now go an lock the mask layer and test your movie now.

## Macromedia Flash

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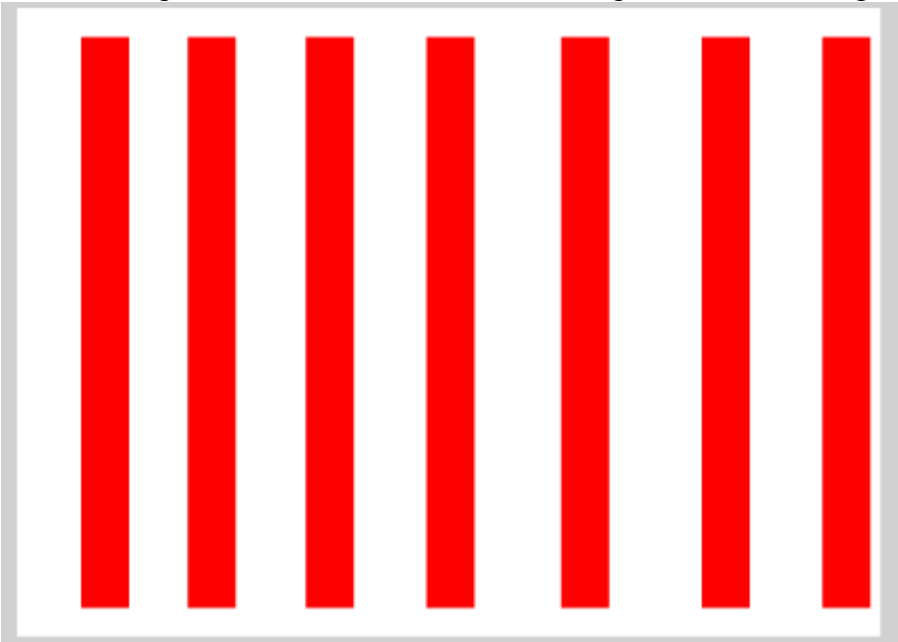


That's it you now know how to animate where the mask itself is moving.

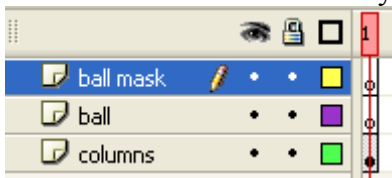
Lets now learn how to animate where there is something moving behind the mask.

Lets say we want to create a ball moving from left to right weaving between poles, the ball coming in front of one pole and going behind another pole and so on.

Lets go and make simple multiple colums on stage, so select the rectangle, select a fill color red and do not opt for a stroke color and draw multiple colums on stage like the one below.

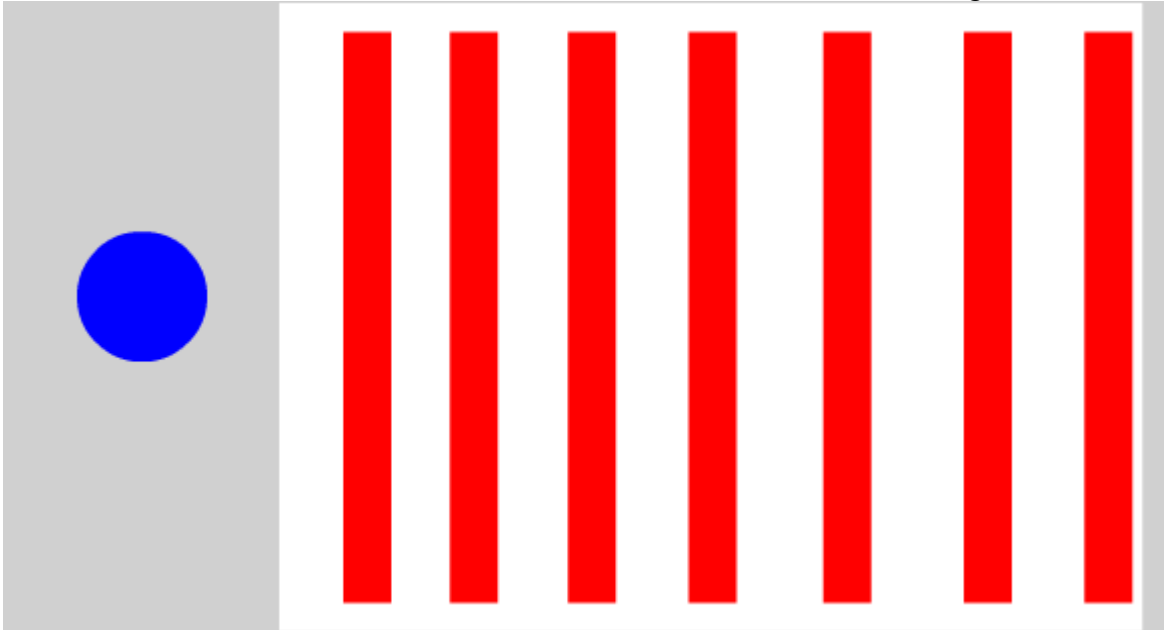


Remember everywhere your mask touches you are going to see the ball, now create three layers, rename the layers with colums in it to column, then make another layer above the column layer and call it ball and another layer above the ball layer and call it ball mask like this one below.



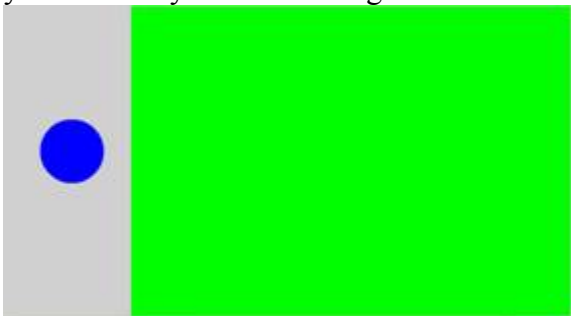
## Macromedia Flash

Go to the ball layer and draw a ball on stage, lets say we want a blue color ball, so choose the oval tool, select the color blue and draw a ball on the extreme left of the stage like this one below.



Remember you must draw the blue ball on the ball layer, so we have red columns in the columns layer, the blue ball in the ball layer.

So now we want to animate this blue ball moving from the left of the stage to the right, and lets say we want this animation to take 3 seconds, so stay on ball layer and go upto frame 36 in the timeline and press F6 to add a new keyframe and move the ball to the extreme right side of the stage pressing Shift key so that it stays on the same line, create a classic tween and scrub the timeline to see if the ball is moving across the stage, we also need the columns upto frame 36, so go to columns layer and go to frame36 on your time line and press F6 to add a new keyframe. Now lock the columns and ball layer and lets start working on the mask layer, go to frame 1 in your mask layer and draw a giant screen to cover the entire stage like this one below.



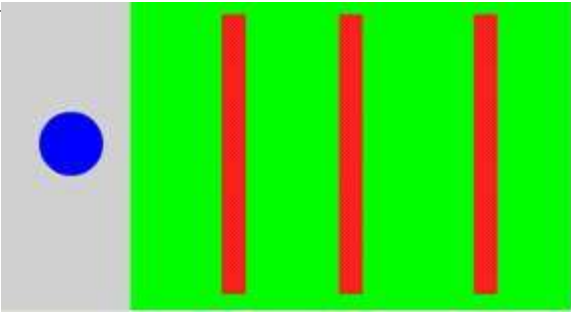
Go up to frame35 in the mask layer and press F5 to insert some frames.

Now we need to select some columns where the ball pass behind the columns lets say 1,3,5,7 etc, so lets to and close the eye in the mask layer and lock the ball layer and open the lock in the columns layer.

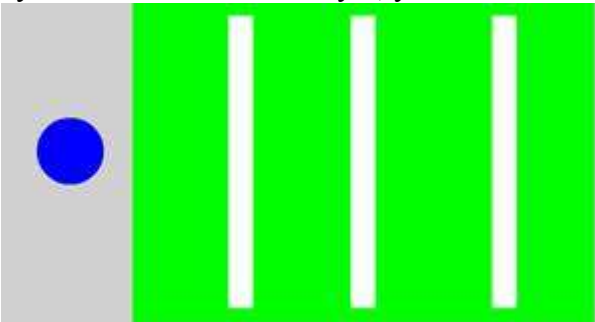
So select column 2,4,6,8 copy it by pressing Ctrl+C, lock the columns layer and ball layer, make the mask layer visible and press Ctrl+Shift+V to paste it in place in the mask layer, you will see something like the one below



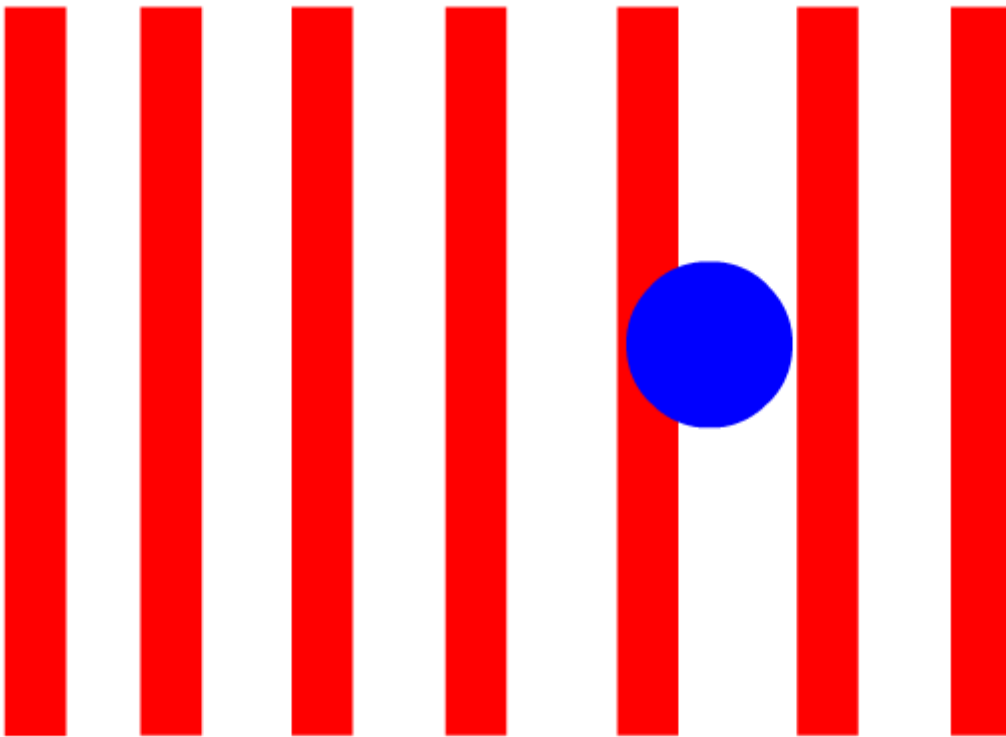
## Macromedia Flash



Be very careful now, deselect the columns by clicking anywhere on the green patch and then select the red columns 2,4 and 6 and press delete, It will not look like we have deleted because we have already these columns in the columns layer, you can see this by clicking (closing) on the eye icon in the columns layer, you will see something like this.



Now having locked the columns layer and the ball layer, apply the mask on to the mask layer, so right click on the mask layer and click mask and check your movie clip by pressing Ctrl+Enter.



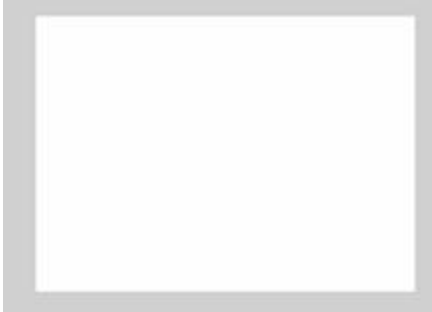
So you now know how to animate using mask.

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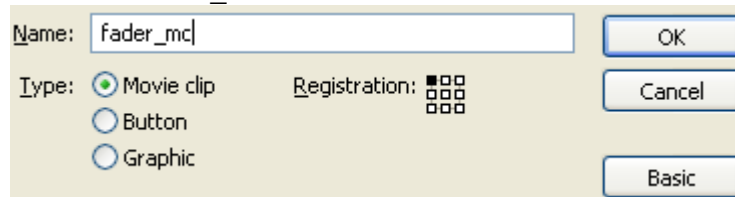
# Learn to create a movie clip that fades as the user moves the cursor away from it in Flash CS4

This entry is part 19 of 32 in the series [Flash CS4 Tutorials](#)

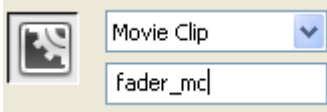
You are going to learn how to adjust the properties of an object just by moving the mouse across the stage. First thing is to create a movie clip on stage, basically create a rectangle covering the whole stage, first lets change the canvas color to black, now choose a white fill color, do not select a stroke color, draw a white rectangle covering the black stage, by selecting the rectangle tool, draw a rectangle which covers the whole stage like this one below. You can call this layer fader.



Now convert this rectangle to a movie clip, so click on it and press F8 to convert it to a symbol and call it fader\_mc and click OK like this one below.



Now we need to add some action script to point to this object, we need to give this object an instance name, so let's click on the object and in the instance name type fader\_mc like this one below.



All we have to do now is add an action script which makes the opacity or alpha of this movie clip change depending upon the "x" value of our cursor, in other words when our mouse when the cursor touches the left side of the stage, the white box is going to be completely transparent and all you see is the black stage, as you move the cursor across to the right its going to get brighter and brighter and becomes fully white when the cursor is on the extreme right. So let's go and do that,

First of all you need to lock the fader layer and create a new layer called actions above the fader layer, always do the actions in their own layer, click on frame 1 in the actions layer and press F9 to open up your actions panel like this one below.

## Macromedia Flash

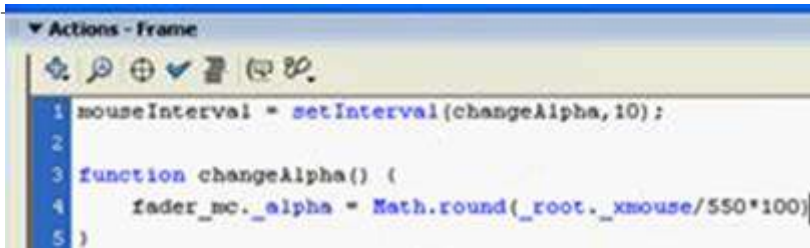


Now what we want to do is, we want to change the alpha of this white rectangle depending on where our mouse cursor is, and needs to be constantly updating, every 10 milliseconds or so we need to check where the mouse cursor is, so we can change the alpha property of this rectangle accordingly, so we need to use an interval to do that. So we are going to create a variable and assign an interval to that variable, first of all lets name the variable, you can name what ever you want to, lets call it 'mouse Interval' and we are going to set this equal to a 'set Interval function' so when you are using an interval, we are going to type an open bracket like this one '(' here, the first thing you type in is the name of the function that you want to repeat over and over again, and that function we have not created yet, so lets go and call this function 'change Alpha' then type coma like this ',' and then you want to put the interval here, the interval is in milliseconds so what ever number you put in here, is how often in milliseconds our function is going to run, in other words if you put 10 here, then every 10 milliseconds this interval is going to run this change alpha function, so close the bracket like this ')' and type semicolon like this ';' to end our statement there.

Skip a couple of lines and lets create that function that change alpha function, so type 'function' and then the name of the function, 'change Alpha' remember Alpha is Capital 'A' then type open and close brackets like this one '()' and then open and close flower bracket like this one '{ }' now in-between the flower bracket we are going to put in the function, remember what we are going to do is change the alpha property of the fader\_mc movie clip, the big white rectangle, so first we need to point to the fader\_mc movie clip, so lets type 'fader\_mc' and we are going to access the alpha property so type a dot, you will see right away a pop up menu, you can scroll down to \_alpha and hit enter, we are going to set that equal to so type equal to like this '=' what we are going to do is, since alpha is in percentage, we can just take what percentage of the pixels we are at, in other words our stage is 550 pixels, if we are at pixel 0, then we are at 0%, if we are at pixel 275, then we are at 50% because that's half way across the stage, so we need to figure out a function that's going to do that for us, so basically we need to figure out a percentage. So we are going to take the x position of the mouse and we are going to divide that by the total width of the stage, and that's going to give us a number with decimals and then multiply that by 100 in order to get the percentage and round that off.

So first we need to point to the x value of the mouse, we get to that by typing in '\_root' dot '.' '\_xmouse' and divide that by the total width of the stage which is 550 pixels and multiply by 100, so put this entire command in brackets like this '(\_root.xmouse/550\*100)' we will get a decimal when we do this, so lets round it off by type 'Math.round' before '(\_root.xmouse/550\*100)' remember to out the Math in capital 'M' or else it may not work, now put a semicolon at the end of the statement like this ';' and that should do it. Your action script is going to look like something like this.

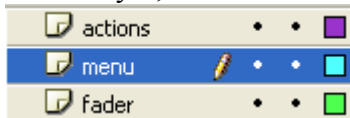
## Macromedia Flash



```
1 mouseInterval = setInterval(changeAlpha, 10);
2
3 function changeAlpha() {
4     fader_mc.alpha = Math.round(_root._xmouse/550*100);
5 }
```

So let me explain again, above what we have a function is change Alpha () and what that's going to do is look at the xposition of the mouse `_root._xmouse/550*100`; and using the xposition wherever your mouse is on stage, is going to use that to calculate an alpha percentage for our fader\_mc, in other words our big white rectangle, so if your mouse is on the extreme left side, this side will be completely transparent and while you move the cursor to the right, then its going to become completely opaque so that you can see it white instead of black, so its going to run this changeAlpha function every 10 milliseconds as written here `setInterval(changeAlpha, 10);` that's what this interval is there that we set, so we can run it over and over again, by test your movie clip to test this.

You will notice that while your mouse is on the extreme left the screen is black and as you roll it across the right you will see it slowly fading it to grey and then to white. So what practically value does this have, first of all it teaches you little bit about action script, but you can also use this in some creative ways, lets say that you had two different menu's on your site, and on the left, you had a menu in white and to the extreme right you had another menu in black, here on your left, you will not be able to see the menu in white and in the right you will not be able to see the menu in black, so lets try doing this, now locking both your fader layer and action layer, create a new layer above the fader layer and call it menu like this one below.



Lets create a menu on the left in white, remember that the stage is going to be black on the left, so go out of the stage and make your menu's because if you pick the white color and start typing on the stage you will not see anything since the stage is white, so type in your menu like home, blog, pictures, links. Like shown below.



After typing it outside the stage, drag and place it on the left of the stage, now you will not be able to see anything, since its white menu written on white stage, now pick a black color and make another menu and type on the right side of the stage like this, say you want menu like resume, portfolio, contacts, education like the one shown below.



Now test your movie by pressing Ctrl+Enter, you will be able to see the menu on the left written in white since the background is black and as you move your cursor across to the right you will see the other menu written in black on a white background.

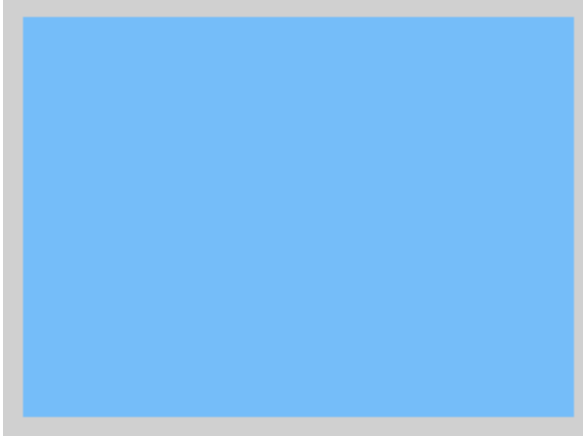
That's it, you will see for yourself, now you know how to create a movie clip that fades as the user moves the cursor away from it in Flash CS4.


### Learn to create cloud animation in Flash

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This entry is part 20 of 32 in the series [Flash CS4 Tutorials](#)

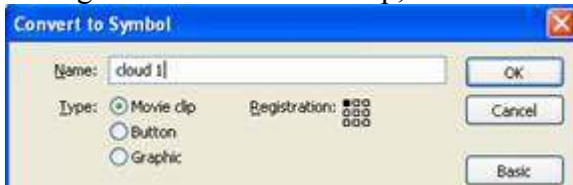
First make the background color sky Blue, something like this one below.



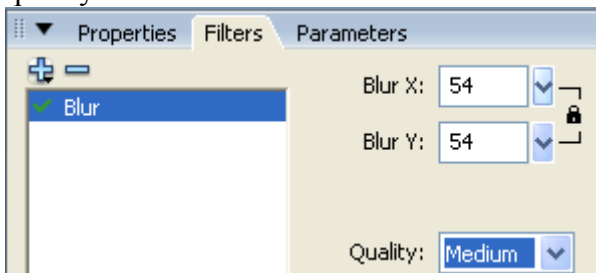
Select the paint brush tool  choose a fill color white and just make some random shapes on the blue stage like this one below.



Now you will have to convert this to a symbol, so select all by pressing Ctrl+a and press F8, having checked the movie clip, name the movie clip cloud 1 and press ok. Like the one below.



Now clicking on the movie clip, you must add a blur filter to it, so go to your filter panel, select the add filter button, select the blur filter and increase the 'x' and 'y' to say 54 with a medium quality as shown below.

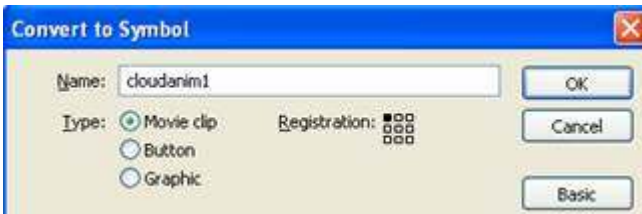


What you see on stage is a very realistic looking cloud, something like this below

## Macromedia Flash



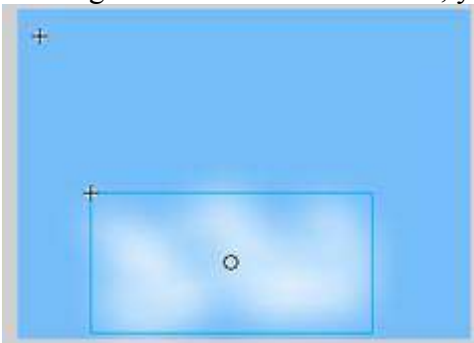
First of all we are going to put this movie clip inside another movie clip, and in that movie clip we are going to create a simple looping animation. So with the movie clip selected, press F8 to put that inside another movie clip, check the movie clip option and call it cloudanim1 and press ok like this one below.



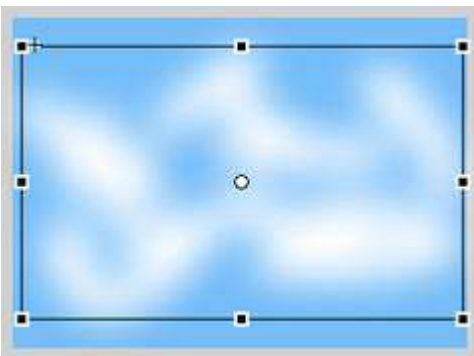
By double clicking on the stage, you will enter the cloudanim1 movie clip, as you can see in the edit bar like this one.



So in our cloudanim1, we are going to bring the clouds little down and make the size smaller by clicking on the free transform tool, you will see something like this below.



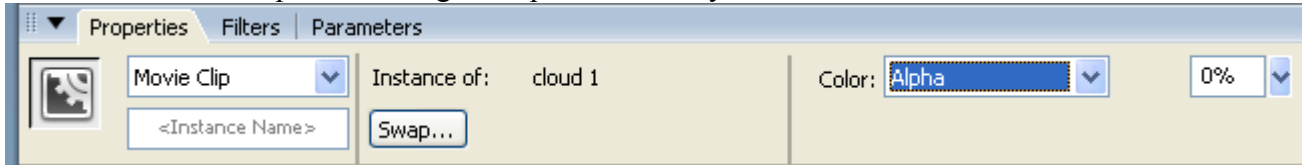
So lets to down to frame15 and press F6 to add a new keyframe, and at frame15 we are going to get the clouds to the centre of stage and also resize the image bigger using the free transform tool, like this one below.



So we are going to create a motion tween between the two keyframes, so right click between the first and the fifteenth keyframe and select motion tween, and as we scrub the timeline across we see the clouds flying at us, and this by default will loop over and over again. Now what we want

## Macromedia Flash

to do is, as it gets really close, we want it to fade out, and we'll do it in the course of a few frames, so jump to frame11 and hit F6 to add a new key frame there, and come to frame15 and we want to make it transparent, so come to frame 15, to back to the properties panel and change color from none to alpha and bring the alpha all the way down to 0 like this one below.

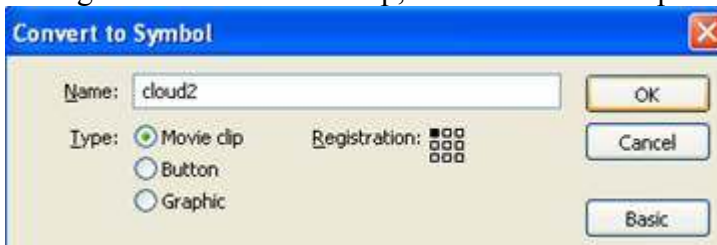


So as you scrub the time line across, the clouds comes close to you and then fades out, ok. So go back to scene1 and test your movie, by hitting Ctrl+Enter. You will see the effect. Now lets go and create 2 more cloud animation movie clips, so lets go and lock this layer and also make it invisible, call this layer cloud1, now add another layer above cloud1 layer and call it cloud2, now do the same exercise to draw clouds by Selecting the paint brush tool choose a fill color white and just make some random shapes on the blue stage like this one below.

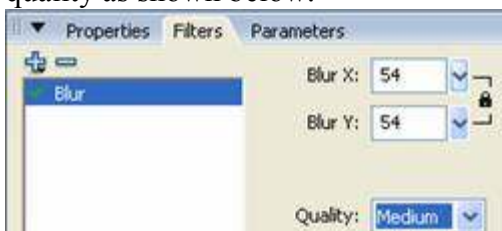


Select all by pressing Ctrl+a, select a movie clip by pressing F8 call it clouds2, go to filters add a blur filter and with the quality medium selected increase the blue to 54.

Now you will have to convert this to a symbol, so select all by pressing Ctrl+a and press F8, having checked the movie clip, name the movie clip cloud 2 and press ok. Like the one below.



Now clicking on the movie clip, you must add a blur filter to it, so go to your filter panel, select the add filter button, select the blur filter and increase the 'x' and 'y' to say 54 with a medium quality as shown below.



So put this inside another movie clip that we are going to animate to press F8, check on the movie clip and name it cloudanim2 and press ok like this one below.

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By double clicking on stage you will enter cloudanim2, being in frame1 bring the clouds down and resize it little smaller, and pick different number of frames, the last one we took about 15 frames, we want this one to look a little big random so go upto 29 frames and press F6 to add a new keyframe there. Again at frame 20 bring it to the centre of stage and expand the size by using the free transform tool, then make the motion tween by clicking inbetween these two keyframes and right clicking and selecting motion tween. We want it to fade back towards the end so jump back to frame 16 and press F6 to add another keyframe and go back to frame 20 and make it invisible in your properties panel to color> alpha>0. Remember these are all stored in movie clips and these movie clips are going to loop over and over again.

Ok we want the cloud1 to animate from frame1 itself, and we want the cloud2 to animate little later, lets say from Frame 5, so push cloud2 to frame5. what we have done is we are animating cloud1, which is start animation right away, but cloud2 will take a couple of frames to animate, but make sure the first frame is still visible in frame5, so we need to add some frames here, so click on frame5 and press F5 to insert some frames, now remember by default, no matter what our main timeline is doing these two movie clips are going to be animated over and over again, they are going to be looping so we don't want to jump back to frame1, if we jump back to frame1 then all of a sudden the animation we created in frame6 is going to disappear, so its only going to be visible in frame 5 and then disappear, so at frame5 we want to put a stop action, so create another layer above cloud2 and call it actions, click on frame5 and hit F6 to add a new key frame there, and selecting that keyframe press F9 to open your actions panel, and the keyboard shortcut to write a stop action is ESC+st or just type "stop();" close your actions panel and test your movie again. You will notice two different sets of clouds coming at us.

That's it now you know how to make cloud animation using flash.

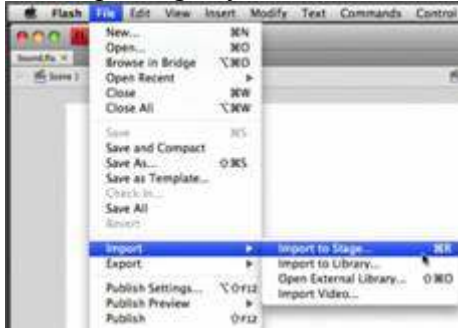


## Macromedia Flash

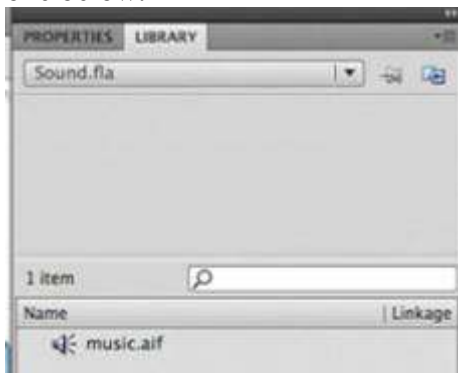
### Learn to import sound in Flash CS4.

This entry is part 21 of 32 in the series [Flash CS4 Tutorials](#)

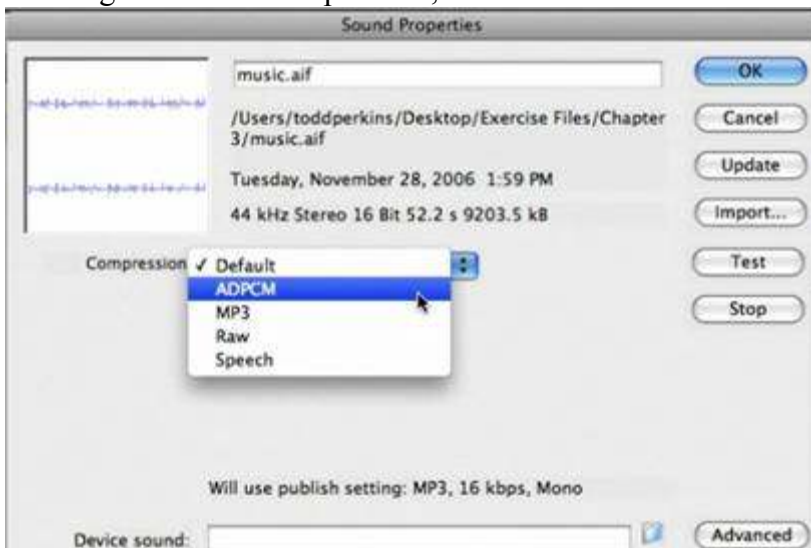
In flash, its easy to import sound and use it in your flash movies, importing sound in flash CS4 is like importing any other element.



Go to the main menu, choose File > Import > import to stage or import to library, in this instance lets select import to library, then it will prompt you to select your sound file from your folders, select a music file with a .aif extension, in this instance I have a sound file called sound.aif in one of my folders, once you import it to library, you will see the sound.aif file in the library like this one below.



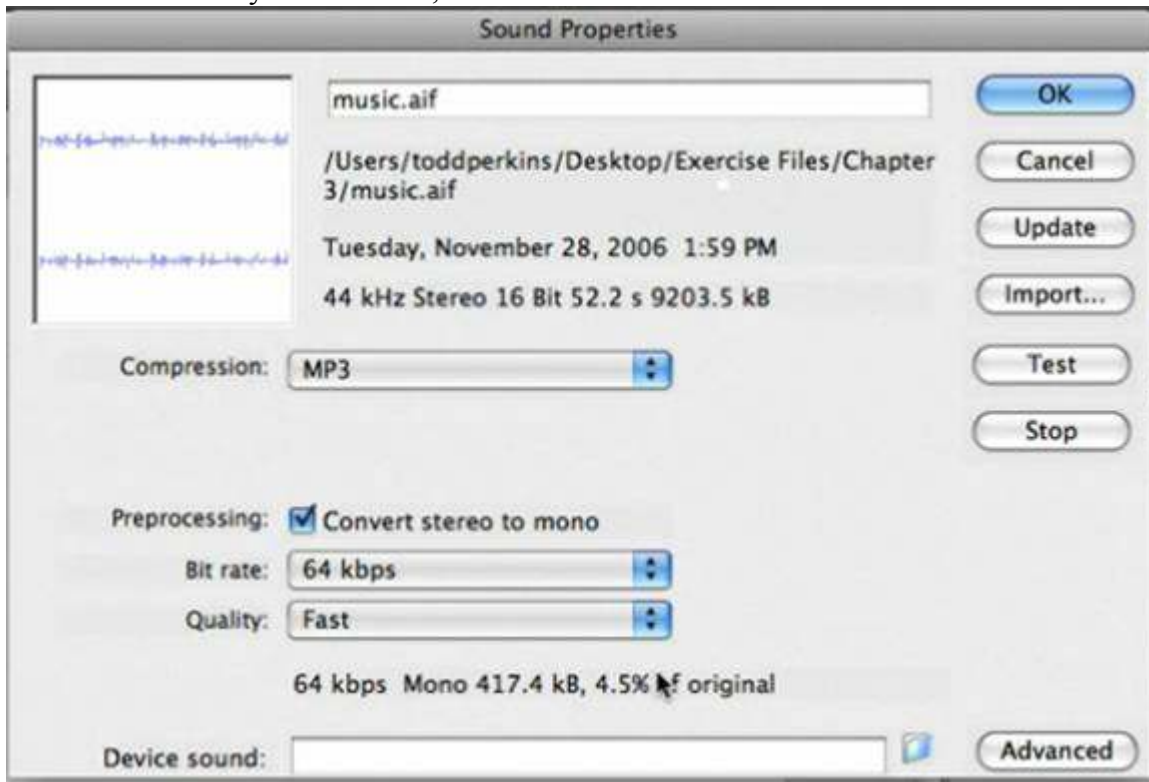
Now double click on the music.aif file, it will open up a sound properties window, you will have to change the sound compression, there are four different methods like the one you see below.



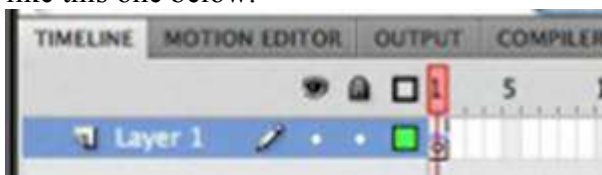
You choose different methods for a specific need, ADPCM and Raw use very little compression and are good for very short sounds, MP3 are good for long sounds and Speech is very good for

## Macromedia Flash

voice over audio, we'll choose MP3 for compression and we will choose a bit rate, the default bit rate is 16kbps per seconds, we'll choose 64kbps and click the test button to test the quality of the sound like the one you see below,



When you test the quality of sound, you can subsequently change the bit rate and quality till you are satisfied with the quality of sound, at the bottom of the above screen, you will notice the quality of sound and the file size is given, here the sound is 417.4 kB, which in case you want to know is 4.5% of the original sound, also note that when editing the sound in your sound properties window, you are not editing the original sound file, so you can at anytime edit you sound file, in other words this compression is only applied when the file is exported, with this setting click OK, then to get a sound of play in your flash movie, drag the sound from the library on to the stage, if you look at the timeline you can see soundwaves where you dropped the sound like this one below.



Now you can test your flash movie by pressing Ctrl+Enter. You will be able to listen to the music. So using flash CS4 you can import music file, compress it however you like and play it in flash player.

### Learn 3D Art in Flash CS4.

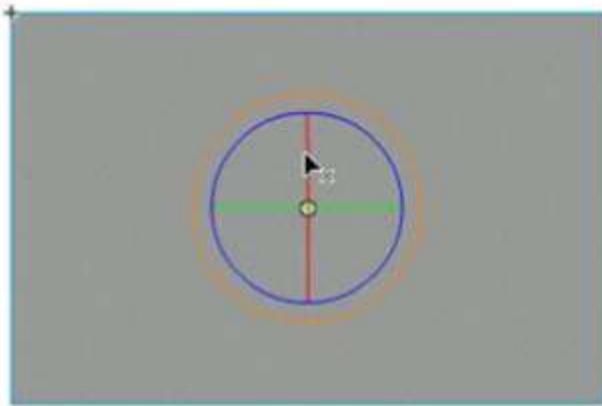
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This entry is part 22 of 32 in the series [Flash CS4 Tutorials](#)

There are 2 new tools added to the Flash CS4, the 3D translation tool and the 3D rotation tool, both of which you will find directly under the free transform tool, under the main menu on the extreme right of the flash CS4 Screen like this one.

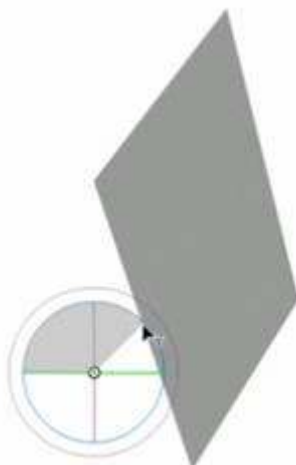


I have on stage a simple movie clip containing a simple vector shape, having selected the free rotation tool, we want to transform this two dimensional object to 3 dimensional space, now click the 3D rotation tool and click on the movie clip, we can see a 3 dimensional guide here like this.



This vertical red line is the 'x' axis, the green horizontal line is the 'y' axis and the blue circle is the 'z' axis, now at any point we can click and drag the 'x', 'y' and 'z' axis, we can manipulate the object by clicking on the axis and dragging to any direction, just try it,

We also have an orange circle which is called a free transform 3D rotation tool in the diagram above. This will manipulate the object in a 3D space all along the axis, you can change the center point of this guide by clicking on the centre point and dragging it to any direction, now if you manipulate the object, its going to transform around the centre point like this one below.



## Macromedia Flash

If any any point you want to return the guide to its centre of the object, just double click inside it, Now lets go and create some animation using the 3d rotation tool, so on the stage click on the movie clip, right click and create motion tween, you will notice the time line like this



Scrub the time line you will see the 3d animation in flash CS4.

You can also adjust the 3d position and view on the right of your screen by adjusting the vanishing point along the 'x' axis and the 'y' axis.



You can use the same logic for a bitmap image as well.

## Intro to Animation in Flash CS4

by kirupa | 28 October 2008

Flash CS4, much like its predecessors, is a great tool for creating animations. In this tutorial, I will show you how to create a simple animation that broadly covers the timeline and some related features.

By the end of this tutorial, you will have learned to create something similar to the following fading in / out animation:



## Macromedia Flash

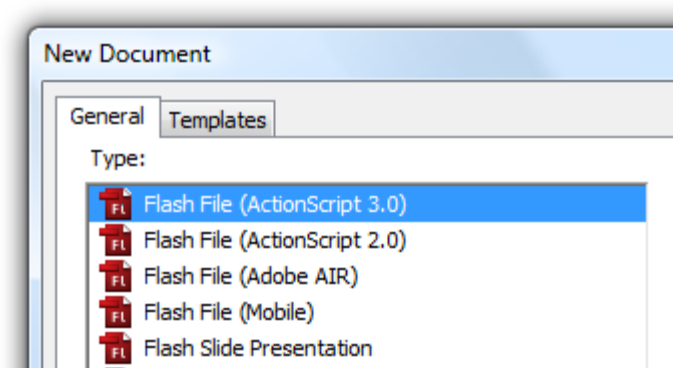
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In the above animation, an image of the Flash CS4 box fades into view and fades out of view while sliding from left to right. You will create something very similar to this in this tutorial, so let's get started.

### Let's Get Started

The following steps will help you re-create the above animation:

- i. Launch Flash CS4 if you have not already. The New Document window will appear. From this window, select Flash File (ActionScript 3.0) and click OK:



[ select Flash File (ActionScript 3) from the new Document window ]

- ii. Once you have done that, the New Document window will disappear and you will see a blank stage that you can work in. The size of your design area is a little large, so let's change that.

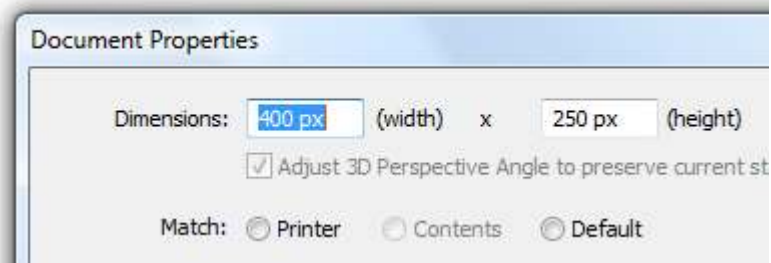
On the right, you should see your Properties pane. Click on the Edit button next to *Size: 500 x 400 px*:



[ click on the Edit button in your Properties pane ]

- iii. Once you have clicked the Edit button, the Document Properties window will appear. Under Dimensions, enter 400 for the width and 250 for the height:

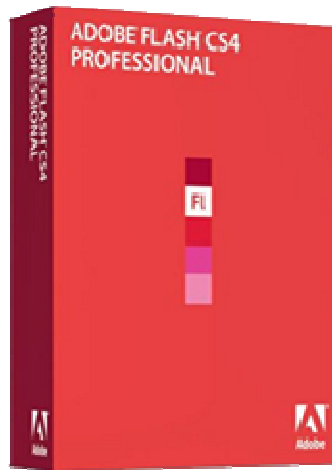
## Macromedia Flash



[ set your stage's width to 400 by 250 ]

After you have entered those values, press OK to close the Document Properties window and to have your design area resized to 400 x 250.

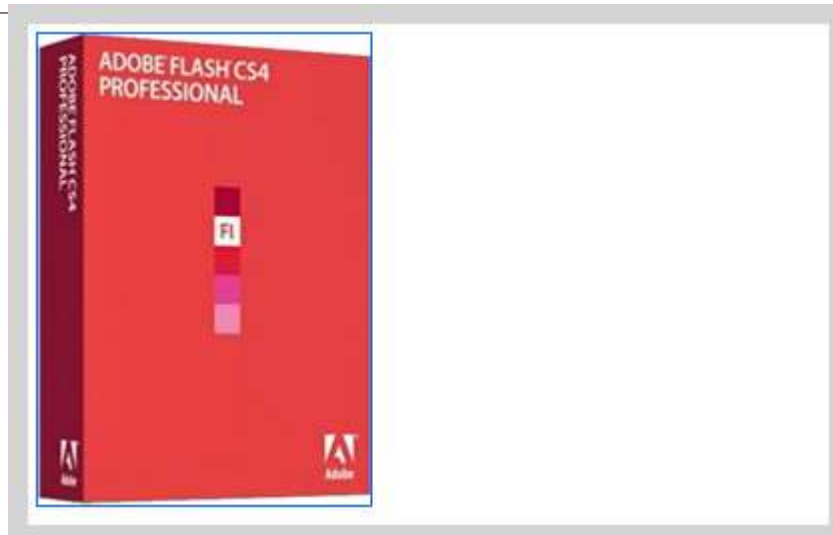
- iv. Ok, now we have our design area setup. It is time to actually begin creating the animation. First off, copy the following image and paste it anywhere inside your Flash document:



[ copy this image and paste it into your Flash document ]

- v. Once you have pasted this file, make sure it is positioned towards the left edge of your stage:

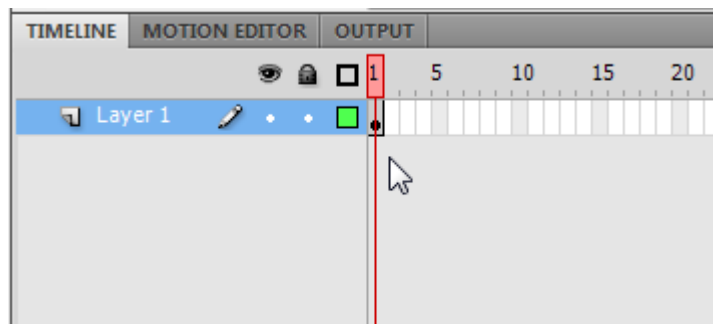
## Macromedia Flash



[ move your image to the left edge of your stage ]

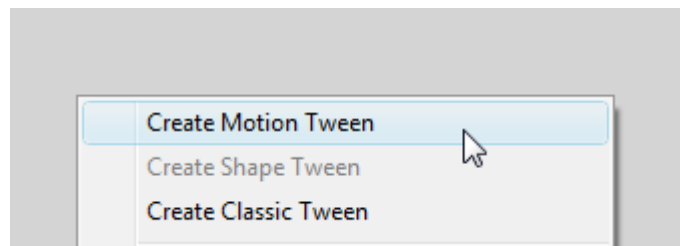
- vi. With your image in the right location, take a look at your timeline - the large area towards the bottom of your Flash window with all of those numbers and grids.

Find the keyframe (the solid circle) on Frame 1 of your *Layer 1* layer:



[ there should be a keyframe on Frame 1 of Layer 1 ]

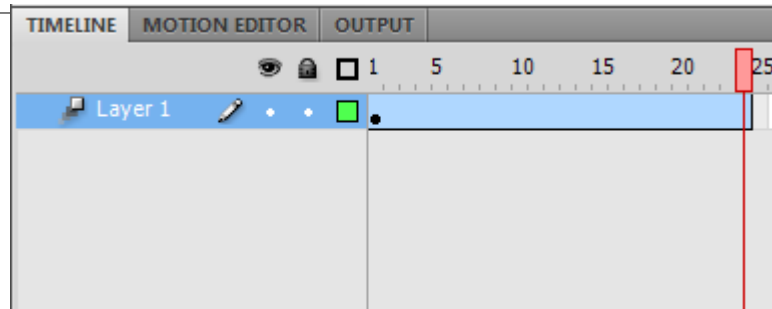
- vii. Once you found that keyframe, right-click on it and select Create Motion Tween:



[ creating a tween is an important part of having your animation work ]

- viii. A brief moment later, you will see more frames added with your playhead moving to Frame 24, the last frame in our sequence:

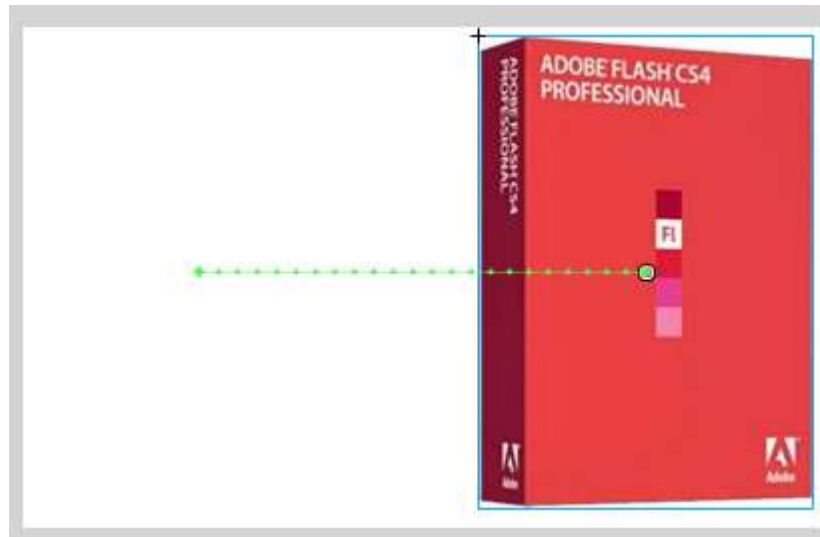
## Macromedia Flash



[ move your playhead to the last frame of your tween ]

Your playhead is the red rectangle with a vertical line. It is used to indicate where in your animation your design surface is currently at.

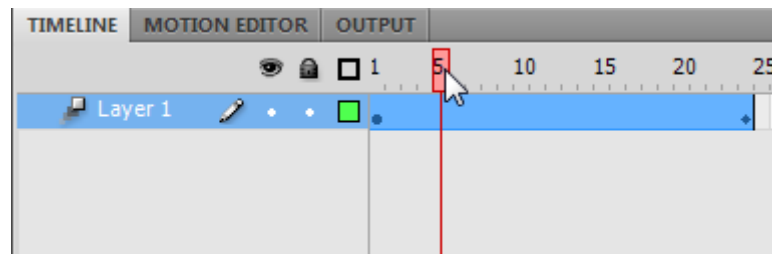
- ix. With your playhead on Frame 24, look at your stage. Your image is currently on the left edge. Select it, and using your arrow keys, move it towards the right edge:



[ while at Frame 24, move your image to the right edge of your stage ]

- x. With your image now on the right edge, press your Enter key. When you press Enter, notice that you are seeing the box animate from the left-hand side of your stage to the right-hand side.

You can also preview frame-by-frame by clicking on your playhead and dragging it to the frame you want to preview:



[ drag the playhead to see your stage preview your animation ]

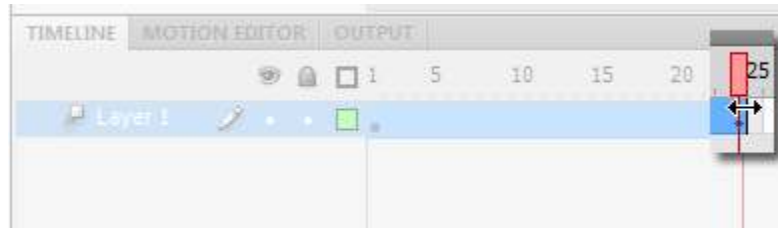


## Macromedia Flash

Anyway, so far so good. You started out with a static image, and now you are able to create a quick animation that slides your image from one side of your stage to another. There is more left to do.

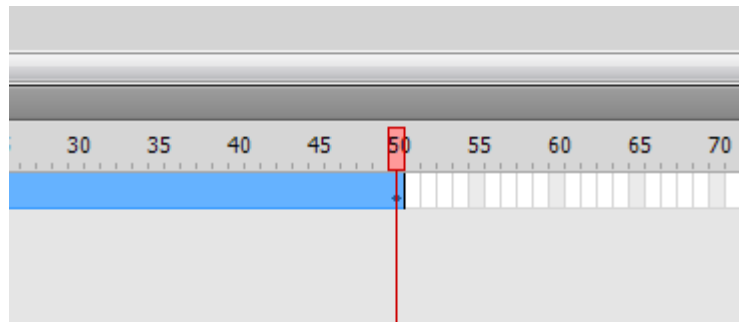
Let's pick up from where we left off:

- x. Currently, this animation is a little too fast. Let's fix that by increasing the number of frames it takes for our animation to complete. To do that, hover over the right-most edge of your frame sequence (at Frame 24). Your mouse cursor will change to display the horizontal resize cursor:



[ drag your tween's last frame to the right to increase the duration of your animation ]

Once you see that cursor, click and drag to the right until you hit Frame 50:



[ don't stop dragging until you hit frame 50 ]

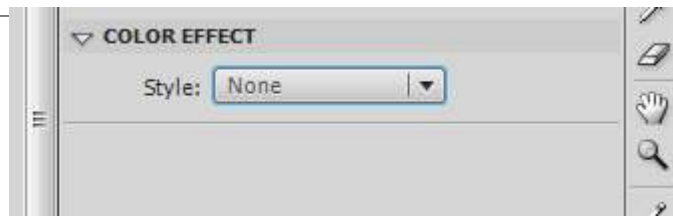
- xii. Now that you are at Frame 50, if you happen to preview your animation again, you will notice that it takes about twice as long for the animation to move from one edge of the screen to the other.

If you want to preview your animation independent of your stage, press Ctrl + Enter where your animation will be displayed in the Flash Player window.

- xiii. Getting back to my example, I actually have the image fading in and then fading out. Currently, your image is visible throughout the entire animation. Let's fix that. While you are at Frame 50, make sure your image is selected and look over in the Properties pane.

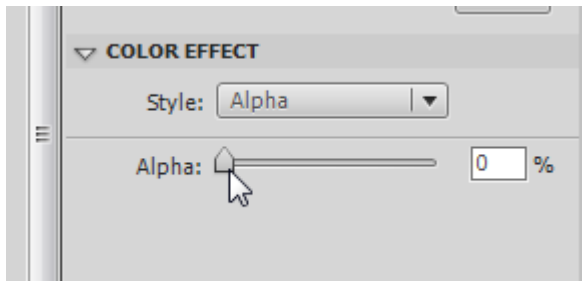
You should see the Style drop-down inside the Color Effect category:

## Macromedia Flash



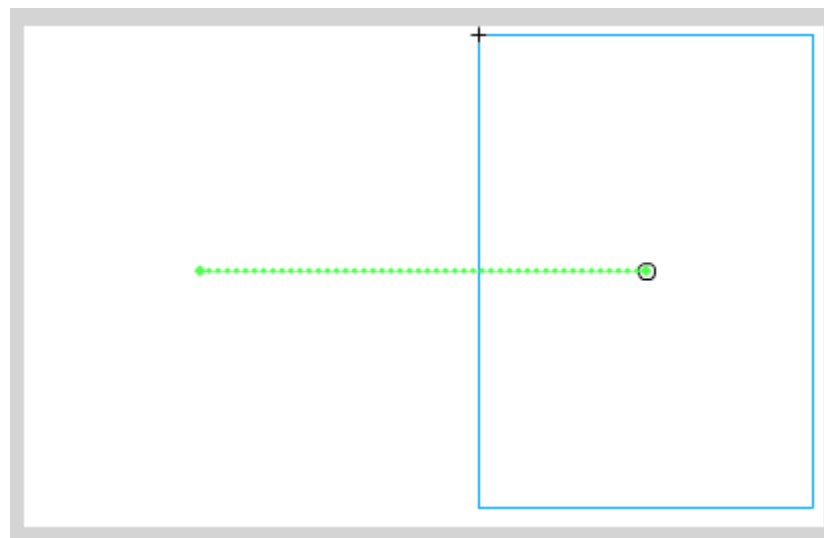
[ find the Style drop-down under the Color Effect category ]

- xiv. Click on the Style drop-down, and select the menu that appears, select the entry for Alpha. Once you have done that, you will see the Alpha slider appear below it. Slide that slider all the way to the 0 position:



[ set your image's Alpha property to be 0 percent ]

Notice that once you have done that, the image on your stage is now invisible:

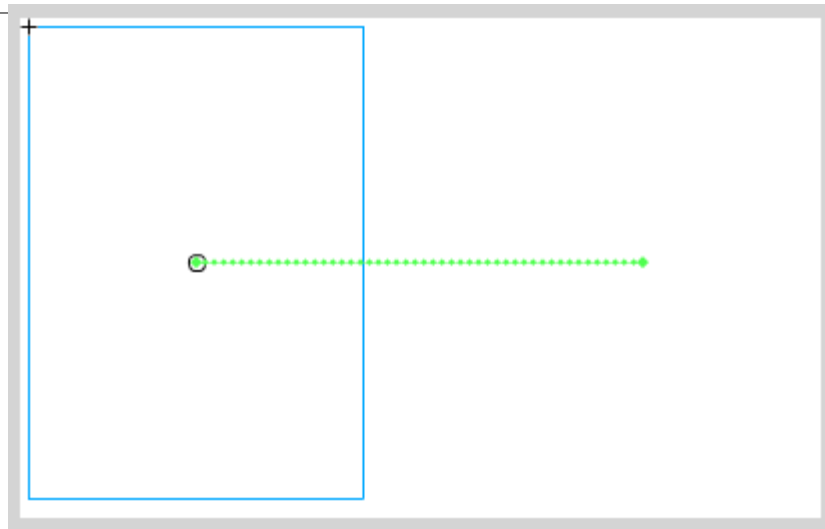


[ setting the Alpha to 0 makes your image invisible ]

- xv. If you happen to play back your animation, you will see that it starts out as visible and then becomes invisible. This is good, but we want it to start out invisible, fade in to visibility, and then fade back into invisibility towards the end.

To fix this, drag your playhead to Frame 1. Once you are at Frame 1, make sure your image is selected. From the Properties panel, repeat what you did in Steps xiii and xiv to set the Alpha of your image at Frame 1 to be 0 as well:

## Macromedia Flash

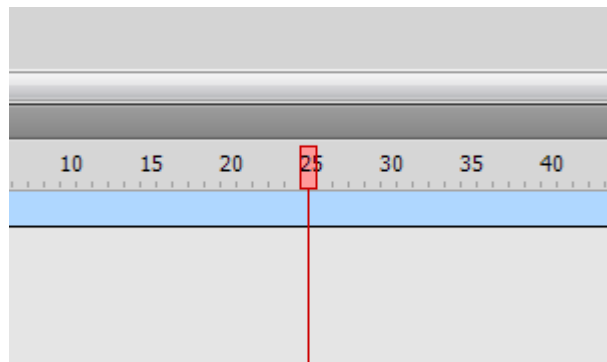


[ your image at the starting point is also invisible with an Alpha of 0 ]

- xvi. If you preview your animation now, notice that you nothing is displayed. This doesn't seem like we are heading in the right direction, does it? Actually, we aren't doing too bad.

We have our starting and ending state of our image set. It is fully invisible at Frame 1 and Frame 50. What we need to do is make sure it is fully visible somewhere in-between those two frames.

Click on Frame 25 to move your playhead slider to that location:

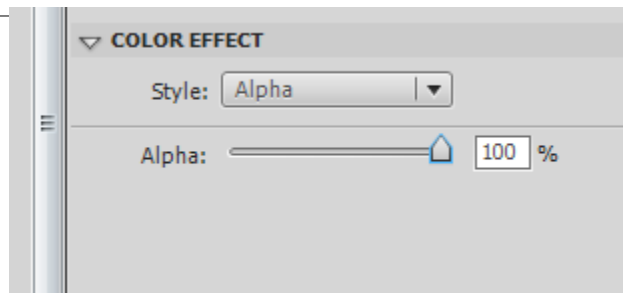


[ move your playhead to the center of your tween at around Frame 25 ]

- xvii. Once at Frame 25, click on your image again. Because your image is invisible, click somewhere in the middle of the green transition dots to select your invisible image.

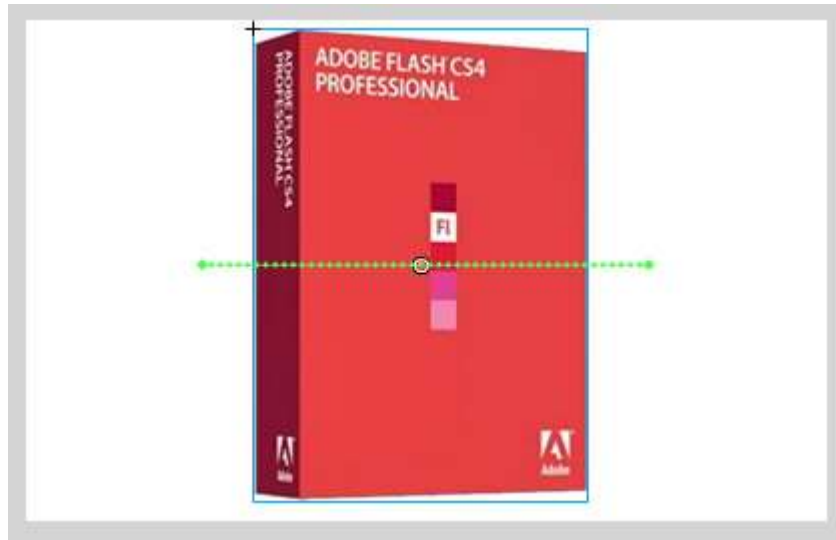
With your image selected, look at the Color Effect category of your Properties pane. You should see the Alpha slider already displayed. Move the Alpha slider all the way from 0 to 100:

## Macromedia Flash



[ this time, set your Alpha property to 100 ]

xviii. Right now, if you look at your stage, notice that your image is fully visible:



[ with an Alpha of 100, your image is now fully visible ]

Better yet, preview your animation now. Notice that you have created the animation that you set out to create! You have an image that starts out invisible, becomes fully visible, and then disappears again.

### Conclusion

This tutorial was a broad overview of some of the animation features you have in Flash CS4. If you are familiar with previous versions of Flash, none of the terminology in here was particularly new. What was new is how you actually created your animation.

In the past, you had an instance of your object at your starting point and another instance of your object at the end point. You also inserted two keyframes to represent that. The tweening system calculated the differences between those two objects and presented them to you.

By default, animations you now create in Flash CS4 are property-based where the properties of your object are modified over a period of time. You have the same object throughout the lifespan of your tween, and at various points in time, the properties that make up your object are altered instead of the actual object itself. In our example, it was our image's X and Alpha properties that were changed over a period of time. That seems trivial and the end result doesn't look dramatically different, but this is a major change that this tutorial does not even attempt to address.

# Macromedia Flash

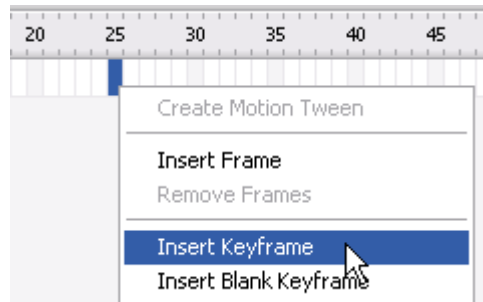
## Motion Tweening

### Let's get started:

- i. First, download and open the FLA I have created. Don't worry, it only contains the bare minimum of items so that you don't have to spend time focusing on nonessential things:

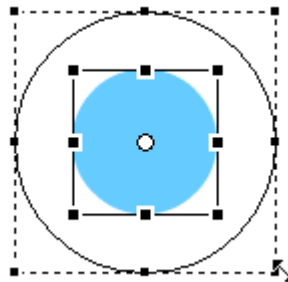
 [Download Partial Source](#)

- ii. After you have opened the FLA, you should see a blue circle in the middle of your screen...and nothing else. Right click on Frame 25 in your timeline and select Insert Keyframe:



[ insert keyframe on Frame 25]

- iii. You should see a keyframe on Frame 25. Now, insert a keyframe on Frame 50 also. Your timeline should have a keyframe on Frame 1, Frame 25, and Frame 50.
- iv. Let's modify our circle's size. Go back to Frame 25 on your timeline, right click on your circle, and select Free Transform. The scale and skew boxes should appear around your circle. Click on any of the boxes on the corners and drag outward:



[ scale your circle larger ]

- v. If you were to preview your animation by pressing Ctrl + Enter, you will see that your circle starts off small, suddenly becomes bigger, and then returns to its small size again. Let's make this better.
- vi. Select all of the frames in your timeline from Frame 1 to Frame 50. Right click on any of the selected frame(s) and select the option for **Create Motion Tween**.
- vii. Notice that when you preview your animation, the circle smoothly animates from being small to large and back again.

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Hopefully the above example helps you to visualize what I was explaining in the first part of this tutorial. It simply creates a fluid transition between different states of the object that your trying to animate.

In the next page, I will show you how to improve your tween by adding some tweening effects, explain some cases where tweening will not work as expected, and more!

### Easing

In the example you created in the previous page, the circle grew in size and shrunk in size at a linear rate. For the most part, in real life, very few things increase and suddenly decrease linearly. As an example, when you apply the brakes on a moving vehicle, you do not slow down at a steady rate. You initially slow down quickly before slowing down gradually as time progresses.

The natural way of gradually slowing down or speeding up is known as easing in geek terminology. In Flash, easing refers to the rate at which you move between keyframes during a tween. The speed at which you move through Frames in Flash is specified by your frame rate. In our example, the frame rate is set to 25 frames per second.

With easing applied, it will **feel** as though your frame rate is adjusted lower or higher than the limit you provided, for your object may accelerate or decelerate its transition from one state to another depending on which type of easing you chose.

#### Easing & Feel

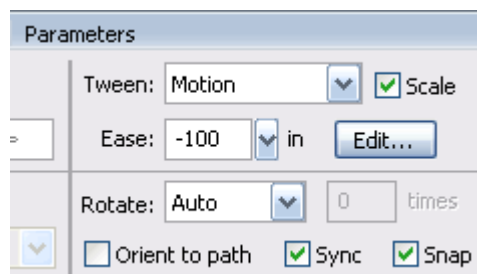
I emphasize the word feel in the above paragraph because Flash does not really accelerate or decelerate your movie's frame rate. Doing so would cause jerky movement as opposed to the smooth movement you would expect with an ease. I 'felt' that it would be the best word to use to describe the situation :)

Speaking of types of easing, let's get into the two types of easing you will use:

- **Ease In**  
When you gradually speed up into an animation sequence.
- **Ease Out**  
When you gradually slow down before reaching the end of your animation sequence.

Let's go back to our animation. As you can tell, we animated the circle to grow and then shrink back to its original size. Let's add some easing to our circle animation by easing it into its expanded size and easing back out to its normal size:

- i. Select any frame between the two keyframes on Frame 1 and Frame 25. In your Properties panel, find the Ease text-field and enter **-100**:



[ enter a value of -100 in the Ease text-field ]

## Macromedia Flash

- ii. A negative number in the Ease text-field indicates an Ease In. Let's add an Ease Out. select any frame between your keyframes on Frame 25 and Frame 50. From the same Ease text-field, enter a value of **100**.
- iii. When you preview your animation by pressing Ctrl + Enter, notice that your circle now has a slight bounce when it grows and shrinks. That's easing!

Did you notice that I did not have you select all of the frames between any two keyframes to apply the effect? I simply requested you to click on any frame between the first two or last two keyframes. Any changes you make to your tween are always applied between two keyframes.

Selecting frames, for example, between 10 and 15 and adjusting the ease will not adjust the ease for those 5 frames. It will apply them to all the frames between the two keyframes at Frame 1 and Frame 25.

### Custom Ease In / Out\*

In Flash 8, you have more control over your easing beyond simply entering a value in the Ease text field. If you press the Edit button, found to the right of the Ease text field, you have greater control over your Ease as well as which property (position, rotation, scale, color, filters) of your animation will be affected by your custom ease.

Addressing this topic requires a tutorial of its own, so I will hold off on explaining the intricacies of the custom easing feature until a later tutorial.

\* Thanks to [TheCanadian](#) for reminding me.

You are almost done. In the next page I will explain some common tips, tricks, and problems to avoid when using tweens.

Motion tweening seems pretty easy, and for the most part, it really is the easiest way to animate a couple of objects as you may have found out from the [previous pages](#). When I was starting out with Flash a long time ago, I often ran into problems creating anything beyond a simple motion tween.

The following is a list of tips based on mistakes I made when using tweens, and hopefully by confessing my mistakes, you would be less inclined to make them yourself:

- **Do Not Tween Multiple Objects in the Same Layer**  
When you create a motion tween, you can have multiple objects on the same layer. The multiple objects, though, will be grouped into one big object, so you will not be able to animate each object individually.  
  
In order to tween each object individually, you will need to place your other objects into their own layers.
- **Changing Object Symbol Type in a Tween**  
You can change the type of your object from a Graphic, Movie Clip, or Symbol at any keyframe in your tween, but you must take into account the [registration point](#). Your animation will work fine as long as you keep the registration point of each of your objects the same.  
  
If the registration point of your tweened objects vary in the same tween sequence, Flash animates them erratically if you make any modifications to the object's position, scale, and rotation.
- **Do Not Replace Tweened Objects**  
The object you start your motion tween with must be the same object that you end your motion

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tween with. While you have full freedom to modify your object throughout your tween, you cannot delete the object and place another object in its place. The motion tween simply will not work.

You **can** morph your object into another object, but you cannot accomplish that with a motion tween. You will need to use a shape tween.

- **Inserting Keyframes in the Middle of a Tween**

When you create a motion tween between two or more keyframes, you are not forbidden from inserting more keyframes into the middle of your tween. Since you insert a keyframe in the middle of a tween, whatever state your object is in at that point of the tween, that is the state your object will be in the keyframe.

For example, in our example, inserting a keyframe at Frame 12 would result in an object that is larger than itself on the first keyframe but smaller than it would be on Frame 25. When you playback the animation, the extra keyframe will not cause any variation in how your animation looks had it been played back without that extra keyframe.

- **Reversing a Tween (by .soulty)**

To reverse a tween, copy the tween's frames to a location on your timeline where you want the reverse to take place. Select all of the frames you just pasted, right click, and select Reverse frames from the menu that appears.



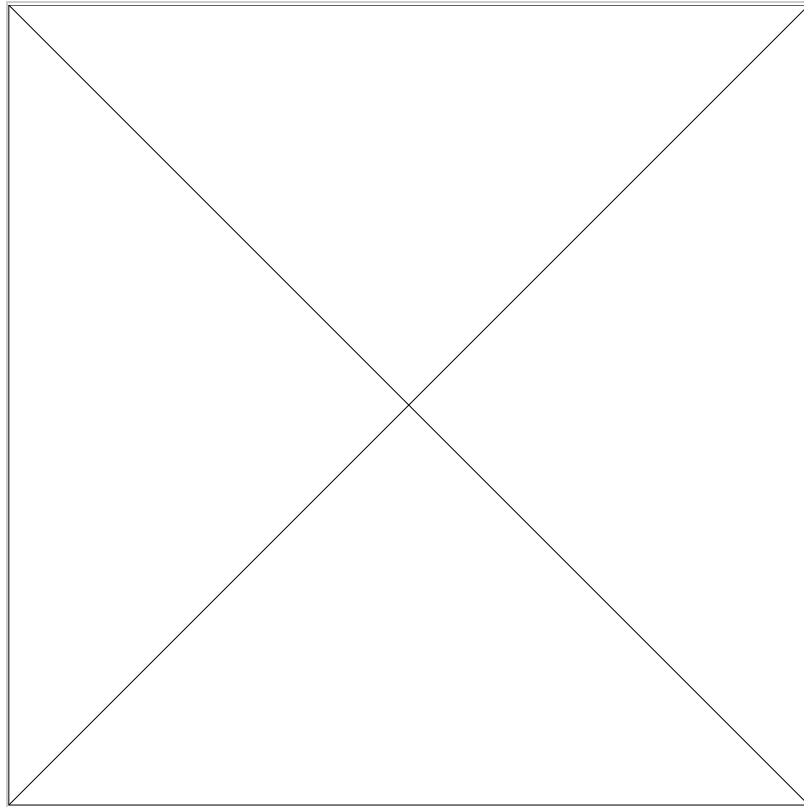
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### Using the Bone Tool on Shapes

by kirupa | 23 October 2008

Flash CS4 introduces the Bone tool for creating [inverse kinematic](#) (IK) animations. If you are not familiar with IK animations, to summarize it broadly, it is a way of creating animations that simulate moving limbs or joints where interactions between various connected components is needed.

In this tutorial, I will explain how to create these IK animations by creating joints on a single, solid shape. You can see an example of this in the following animation where I simulate blades of grass (probably from another planet!) moving:



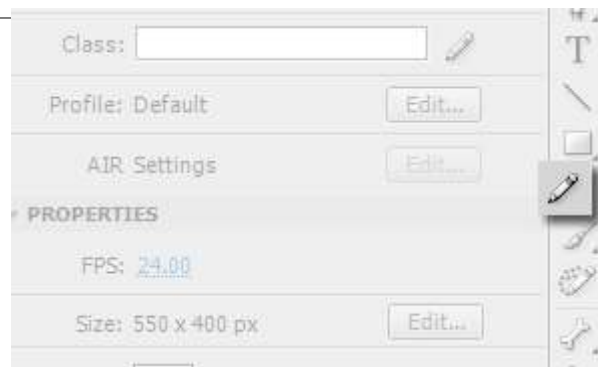
You will create something very similar to this in this tutorial, so let's get started. Go ahead and launch Flash CS4, and create a new file.

#### **Drawing a Blade of Grass**

What we want to do is draw out this weird curly blade of grass. There are several ways you can do this. For me, the easiest way is to draw a closed shape of the grass blade using my pencil tool and then filling it in with a solid color.

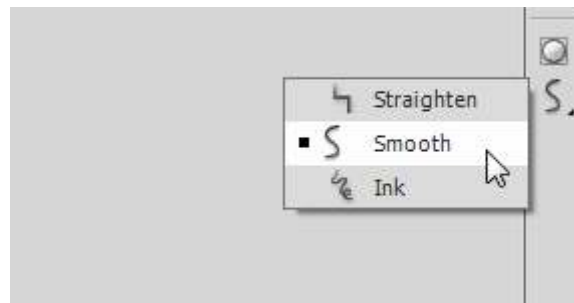
To do this, first select your Pencil Tool from your Tools panel located on the right-hand side of your window:

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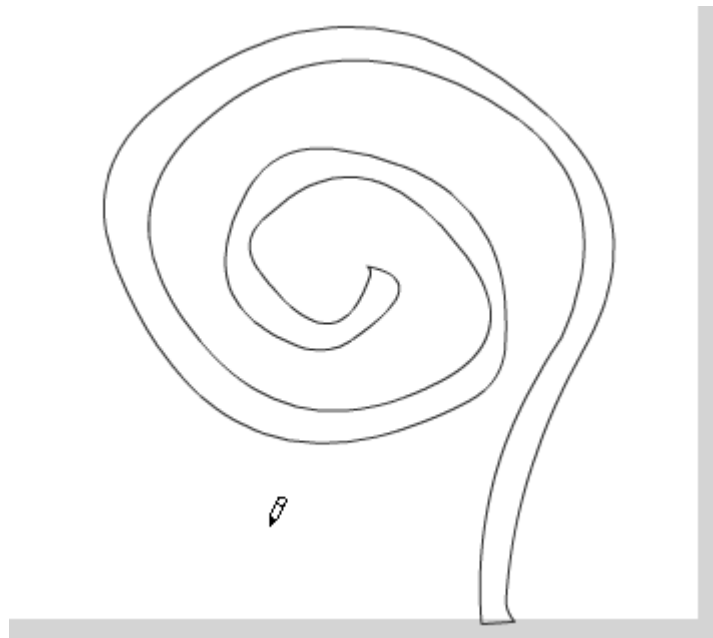
[ select the Pencil tool to draw your shape ]

Once you have selected your Pencil Tool, set your Pencil Mode to Smooth. You can find the Pencil Mode menu at the very bottom of your Tools panel:



[ setting the Pencil Mode to smooth will make your lines seem more fluid ]

Once you have set your pencil mode to Smooth, it is time to start drawing your shape's outline. There isn't an easy way to describe how to do this, but just imagine there is a stencil / cut-out of this blade of grass and you are following the outline of it:



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[ pretend you are tracing a solid shape by using the pencil tool ]

Do make sure that the shape you have drawn is fully closed. If there are any open regions or gaps, then you will be unable to give your shape a fill color. Speaking of which, use your Paint Bucket tool to give your blade of grass a different fill color.

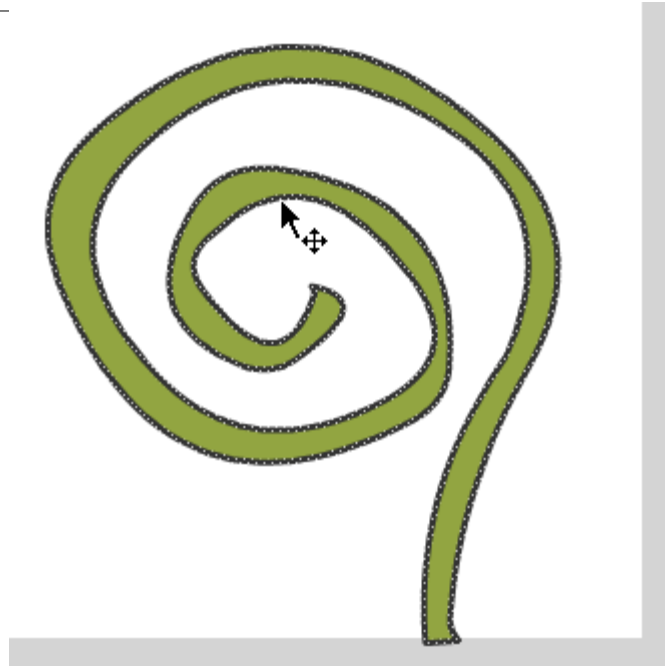
I am going to go with a slightly faded green color:



[ give your shape a fill color ]

Once you have done this, let's remove the outline from this shape. Make sure your Selection Tool is active from your Tools panel, and with your mouse cursor, try to double-click over the outline of your shape. Once you do that, you will find your entire shape's outline selected:

## Macromedia Flash



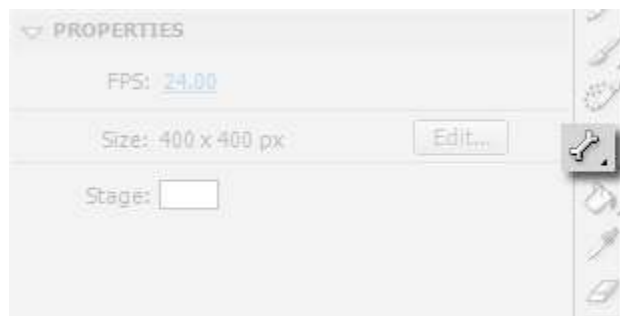
[ double click on the outline to select it for deletion ]

With your shape's outline selected, hit the Delete key to remove the outline. In the end, all you should see is your shape.

Ok, in this page we made a great deal of progress by getting this weird shape drawn. In the [next page](#), let's actually look at setting the joints and creating the IK animation.

### Setting up the Bones

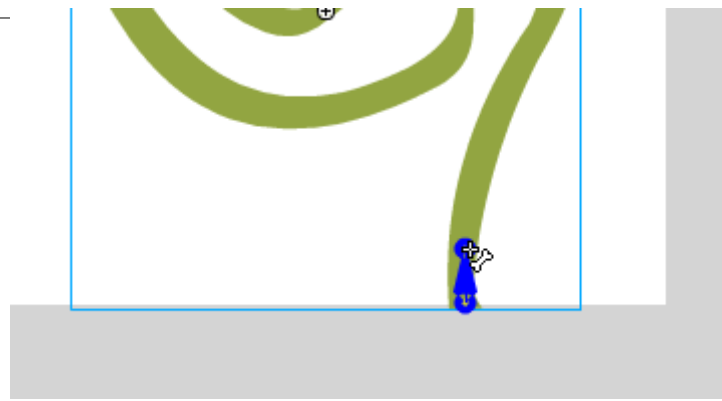
Now that your shape is done, let's divide our shape into individual components that can be independently adjusted using the Bone tool. With your shape selected, select the Bone tool from the Tools panel:



[ the Bone tool is the one with the icon of a bone! ]

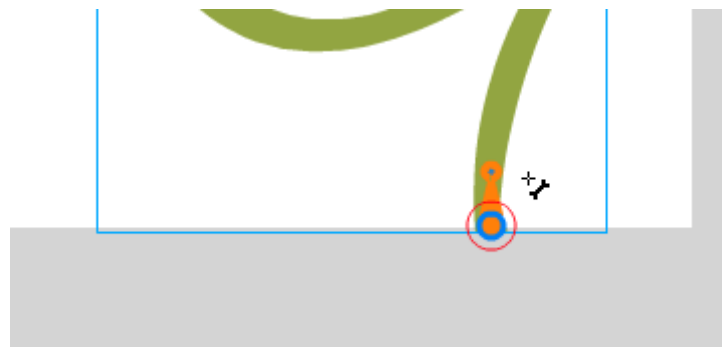
Once you selected your Bones tool, click on the base of your shape and start moving your mouse up to create the first segment of your joint:

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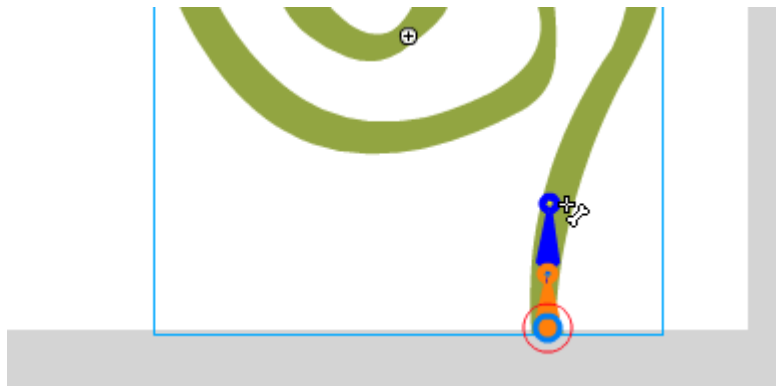
[ click at the base of your shape and start moving up the outline ]

Once you have dragged your mouse up a few pixels, release your mouse to set the first joint:



[ releasing the drag will create a bone segment ]

This is only the first joint, and you will need more. Click on the tip of the joint you just created and begin drawing another joint:

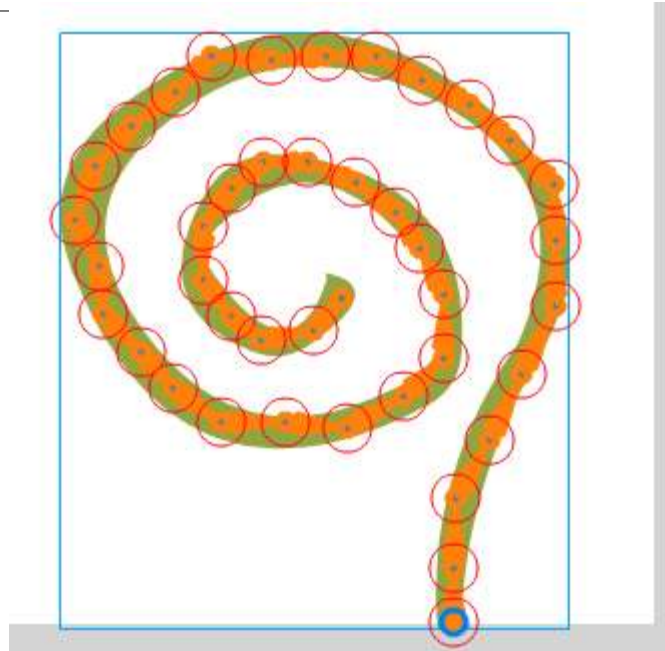


[ draw another joint by starting your new joint from where the old one ended ]

Just like before, release your mouse after you have drawn a joint an appropriately sized bone segment.

As can guess what the next step is, keep creating these joints and hugging the contours of your shape until you hit the end of the road:

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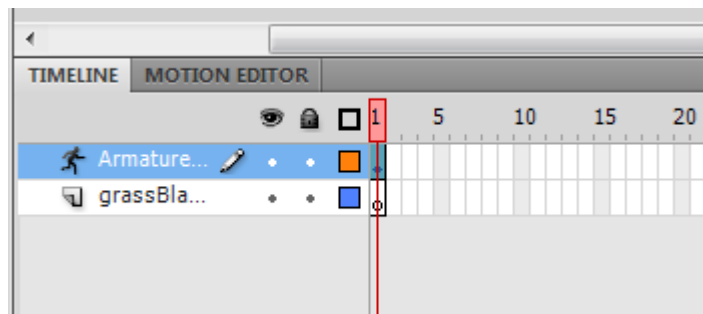


[ that is a lot of joints for a blade of grass! ]

This will take a minute or two, but it isn't particularly difficult. If you find yourself unable to get the joint to map with the curves in your shape just right, zooming in or turning snapping off (View | Snapping) can help.

### Creating the IK Animation

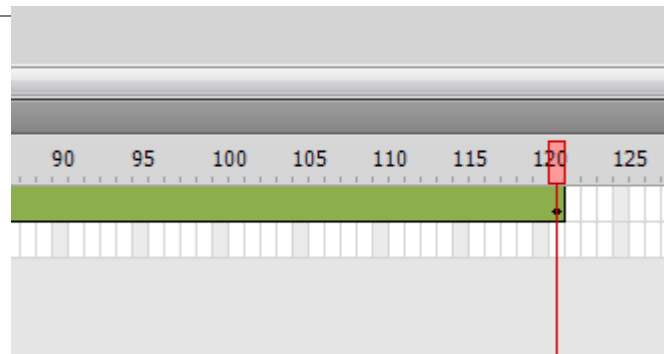
With your bones set, it is time to create the IK animation. In your timeline, you will see a layer called Armature created for you:



[ when you use the bone tool on the shape, the Armature layer is created for you ]

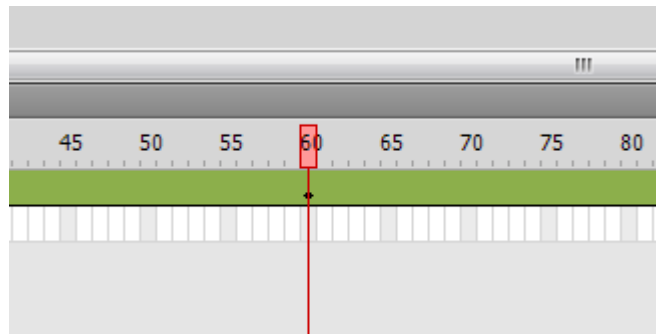
On this layer, right click on Frame 120, and select the Insert Pose menu item. Once you have done that, a keyframe will be inserted for you at Frame 120 with a green background color filling up all frames between 1 and 120 in the Armature Layer:

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[ insert a Pose keyframe on Frame 120 ]

Let us insert another Pose - this time at around Frame 60. Just like before, right click on frame 60 in your Armature layer, and select the Insert Pose menu item. After a few seconds, your Pose will be inserted there as well:

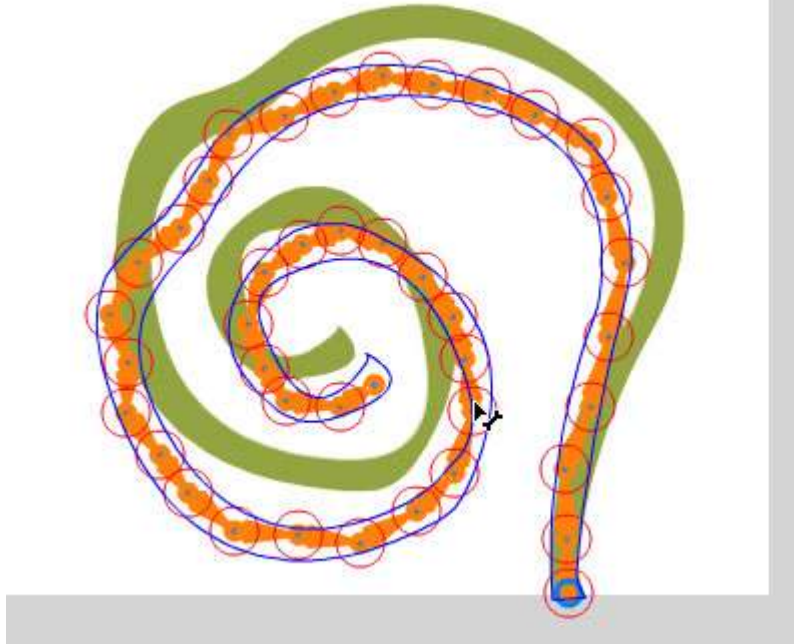


[ insert another Pose keyframe at Frame 60 ]

With your playhead on Frame 60, it is time to move some of the joints around. Click on the Selection Tool to get your mouse cursor back and to go out of Bones mode.

Select your shape again if it has lost focus. Now, click on any of the joint endings and move them around with your mouse cursor:

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[ drag the points whose connected segments you want to move ]

Getting the right pose you want is a bit of an art, and with a shape containing as many joints as this, you may find the lag between your mouse movement and your shape actually updating to be quite noticeable. With some trial and error (and Undo), getting what you want should be straightforward.

Once you have gotten your shape in just the right pose that you want, hit Enter to see the preview on the design surface, or press Ctrl + Enter to see how it looks in the Flash player!



# Macromedia Flash

## Fading Text

by tom aka novatake

One great Effect that can be created in flash very easily is fading text it can make your site look a lot more cooler and gives you the facility of fading between images this tutorial will show you exactly how to do this.



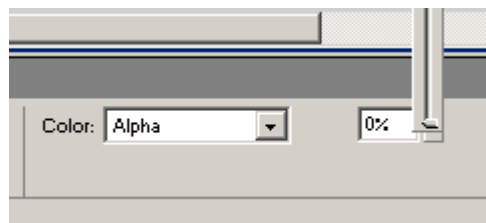
[ you will be creating the above movie ]

- i. Create a new movie and change the size to 200x100 and enter the text KIRUPA.COM. Set the font color to something other than white.
- ii. Click on the text so it gets a blue box around it make sure u are on the arrow tool. Then Right click on the text and click convert to symbol or press F8. Convert the text to a Movie Clip and press ok.
- iii. A Small circle should appear now in the centre of your text that will be the sign to tell you that the text is a symbol:



[ the convert to symbol dialog box ]

- i. Now right click on the movie clip and click on properties you should see a panel appear and at the bottom right you will see a colour section click the drop down menu and choose alpha to the right of the menu a percentage bar will appear drag this down to 0% this will make your text invisible.



[ the alpha slider at 0% ]

- v. Insert a keyframe at about 30 frames in and right click on the clip again and go to properties, back down to alpha but this time change the alpha to 100% then exit the properties panel, highlight the layer and right click and press create motion tween this will add a coloured arrow into the timeline

## Macromedia Flash

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press Ctrl+enter to view the movie.

- vi. If you want your text to fade back out like the sample then insert another keyframe at about 50 and change the alpha again to 0%

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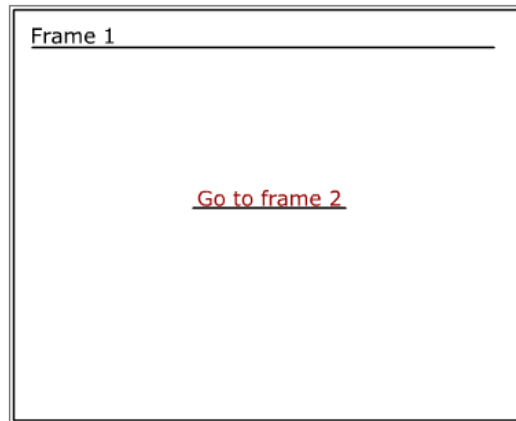
## Frame Jumping

by Ed Edwards: 13 Feb 2005

### Introduction

When you play an animation in Flash, unless you used ActionScript, your animation simply moves through the timeline - displaying whatever is contained on those frames. That is very linear, and sometimes you would want to tell Flash to skip a few frames, or jump to a new frame that is 100 frames down. How can you do that? This tutorial will show you!

In this tutorial you will learn how to jump from one frame in your animation to another by using a few lines of ActionScript. The following is an example of what I will explain:



[ Click the Go to Frame 2/1 link ]

### Steps to Create Animation:

If you follow these steps carefully you shouldn't get too confused.

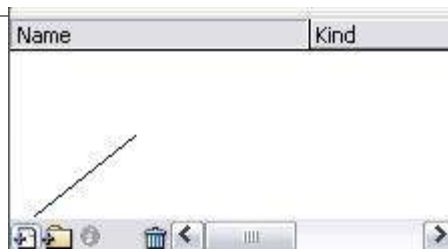
- i. Ok let's start by opening up Flash and making a new document. I made mine 250 by 200.
- ii. 2. Go to the time line and name the current layer "buttons".



[ your layer should look something like this ]

- iii. Make a new button by clicking on the create symbol button (below) and make a button of your choice, and ok it.

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[ I have drawn a line to the create new symbol button ]

- iv. Now place your button where you want in your movie. Well, it's been easy so far so let's get some coding done. First go to the first frame in your timeline and open the actions panel and enter this code

```
stop();
```

This just stops the movie from playing, now keep your actions panel open and select your button and paste in this code.

```
on (release) {  
    gotoAndPlay();  
}
```

Where it says gotoandplay() you must put the number of the frame you want between the () characters. if you want to go to frame six it would be `gotoAndplay(6)`, it's very important you get this right or it will not work.

## Hyperlinks in AS3

by kirupa | 12 May 2009

It's hard to create an app of any real substance these days without creating hyperlinks that load a URL when the user clicks on them. These could just be links that open a new web page, launch your e-mail app for sending an e-mail, or any other type of crazy thing you would want to do with URLs.

In this article, I will briefly show you how to use ActionScript 3.0 (AS3) to create a hyperlink - similar to the example you see below:



Click on the "Send E-Mail" or "Launch Web Page" link to either see your e-mail application launch or your browser taking you to the kirupa.com home page. Let's look at how this works.

### Introducing URLRequest

For handling all types of requests, you have the URLRequest class. The following is a very simple example involving URLRequest that, when run, will load the kirupa.com home page for you:

```
var homeLink:URLRequest = new URLRequest("http://www.kirupa.com");  
navigateToURL(homeLink);
```

There are only two parts to creating a hyperlink. The first part is declaring and initializing your URLRequest object:

```
var homeLink:URLRequest = new URLRequest("http://www.kirupa.com");
```

As part of your URLRequest constructor, you can specify the link you would like to see opened. Once you your URLRequest object, referenced in this case by `homeLink`, you are good to go. You simply have to invoke the `navigateToURL` method and pass in your URLRequest object as an argument:

```
navigateToURL(homeLink);
```

The combination of the `navigateToURL` method and your URLRequest object is all you really need to create a hyperlink, and the next section will look into the above two lines of code in the context of a more realistic application.

## Macromedia Flash

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### More Realistic Example + Window Targets

Now that I have sufficiently described the basics of how to create a hyperlink, let's look at a slightly more complicated example that probably will closely mimic how you would actually use this code.

The following is the code I used in the example animation you saw above:

```
function init() {
    emailButton.addEventListener(MouseEvent.CLICK, EmailHyperlink);
    webButton.addEventListener(MouseEvent.CLICK, WebHyperlink);
}
init();

function EmailHyperlink(e:MouseEvent)
{
    var email:URLRequest = new URLRequest("mailto:kirupa@kirupa.com");
    navigateToURL(email);
}

function WebHyperlink(e:MouseEvent)
{
    var web:URLRequest = new URLRequest("http://www.kirupa.com");
    navigateToURL(web, "_self");
}
```

Most of the code you see above should be very familiar to you. I am simply setting up events and event handlers so that when one of my buttons get clicked, something happens.

What is different is the following line:

```
navigateToURL(web, "_self");
```

Notice that the `navigateToURL` method I showed you earlier takes in another argument besides the `URLRequest` object. It takes the window target as an argument. In this case, my argument is `_self`. The range of target values you can specify are:

- **`_self`**  
Loads the link in the *current* page or the current page in a Frame. This is the default selection used by Flash to open any link.
- **`_blank`**  
Loads the link in a separate browser window. You selected `_blank` in the tutorial above.

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---

- **\_parent**  
Loads the link into the frameset file of a frame. The frameset file controls all the frames, and setting the window to \_parent will eliminate frames in the subsequent links. As you may have seen, often times, links get loaded inside frames unintentionally. Setting \_parent will solve the misuse of frames!
- **\_top**  
Loads the link on the top frame.
- **frameName**  
If you have a page containing frames, you can specify the name of your frame as well. This will allow you to load pages in particular frames.

# Macromedia Flash

## Creating a Simple Flash 8 Animation

by kirupa | 29 September 2005

Like I have been doing for the past few versions of Flash, I have decided that my first tutorial for Flash 8 would be the "Creating a Simple Animation" tutorial. If you are new to Flash or Flash 8, this tutorial will serve as a good introduction to simple animation effects and the tools you will use to create those effects.

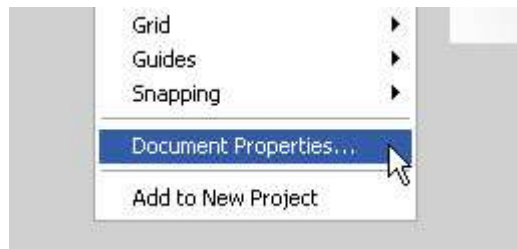
The following animation is an example of what you will have created by the end of this tutorial:



[ a simple animation created quickly in Flash 8 ]

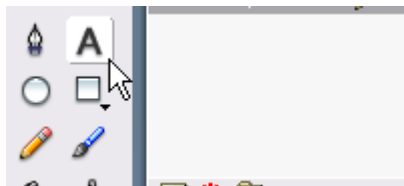
### Let's get started:

- i. First, launch Studio 8. Once you have launched the program, you will see your stage. The stage is the area in the middle that takes up most of your screen. Right click anywhere on your stage and select Document Properties:



[ the document properties menu item ]

- ii. The Document Properties window should appear. Under Dimensions, enter 300 for the width and 200 for the height. In the text field labeled Frame Rate, enter 25. Press OK to apply those values.
- iii. Let's add some text to our stage. Click on your Text Tool icon from the toolbox:



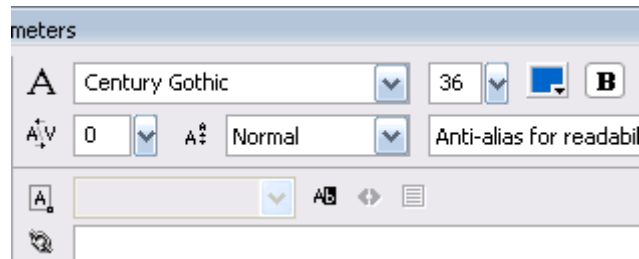
[ click on the Text Tool from your toolbox ]

- iv. Once you have clicked the Text Tool icon, place your mouse cursor in your stage, click your mouse and drag to the right. Releasing your mouse after clicking and dragging should create a rectangular area where you can enter your text.



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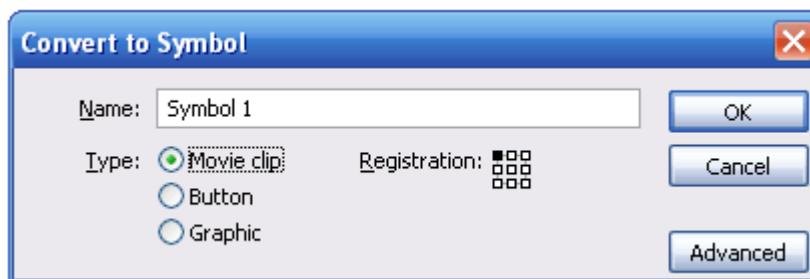
- v. Type the word **#kirupa**. You should see the text you type display in the text field that you have created. After you have entered your word, click outside the text field to finalize the word you entered.
- vi. Select your "#kirupa" text by clicking on it with your mouse. Look down towards the bottom of your screen where the Properties panel resides. You should see a lot of Properties used for editing text.
- vii. From your Properties panel, you can adjust the font size, style, and more! Select any font that you like, but set the font size to something large like 36. You can make other text modifications from here also:



[ my Properties panel for the selected text ]

- viii. We are currently working on our main timeline. It will be easier if we convert the text to a movie clip and work from the movie clip's timeline. Make sure your text is selected and press F8 or go to Modify | Convert to Symbol.

The Convert to Symbol window will appear. Select the option for Movie Clip and press the OK button:



[ from the Convert to Symbol window, select the option for Movie Clip ]

- ix. Once you have converted your text into a movie clip, right click on your text and select the option for Edit in Place. You won't really see anything drastically different, but your timeline is now localized to this movie clip.
- x. So, as of now, you have created some text, modified it the way you want, and converted it into a movie clip. We want to animate each letter, so let's break our text apart into individual letters. Right click on your text and select "Break Apart".

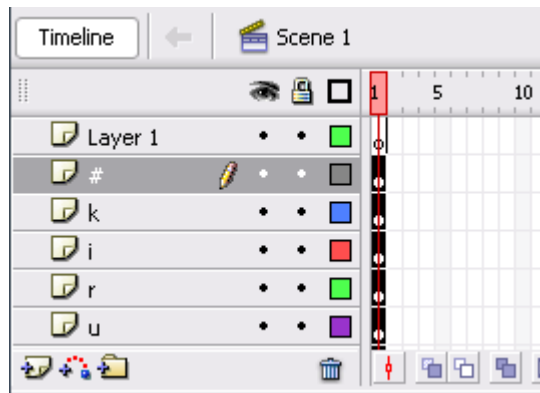
Your text is now divided by letter:

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[ our text is now broken apart ]

- xi. Each of your letter now has its own little box when you select it. Make sure that all of your letters are selected. You can simply select all of the letters by clicking and using the Shift key or just lassoing them by clicking and dragging over all of your letters.
- xii. Once all of your letters are selected, right click on any of the letters and select "Distribute to Layers." Your timeline should now have one layer dedicated to each letter of your text:



[ how your timeline looks after each letter has been distributed to layers ]

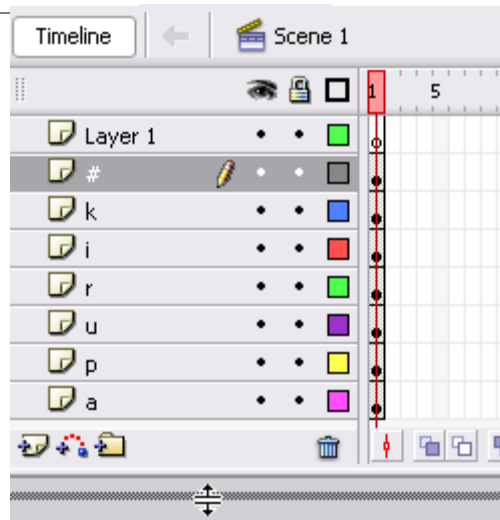
In this page we have created and setup our text so that each letter of text is on its own layer. In the next page I will explain how to animate our letters in our text.

### The Timeline

Up until now, we haven't done much work with the timeline. The top half of your Flash window is where the timeline is. Your timeline contains two important things: layers and frames. Your actual animation will be specified in the frames, and the objects that you animate are specified in layers. You'll see what I mean in a minute.

If you have been following the tutorial, more than likely, your layers extend below the timeline - thus requiring you to scroll. That is a minor annoyance that can be rectified by resizing the vertical size of your timeline. You can resize your timeline by clicking on the bottom edge of your timeline and dragging down:

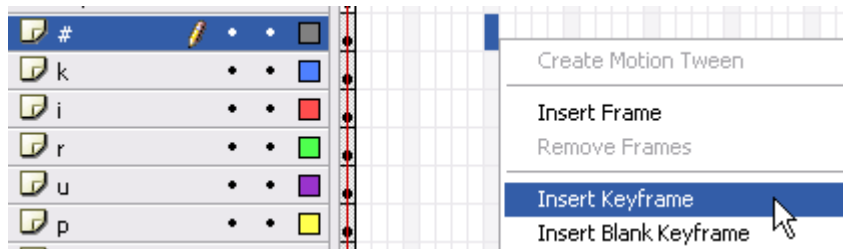
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By increasing the size of our timeline, we can easily access all of our layers without requiring much scrolling.

Anyway, I am sure you would want to get back to animating:

- i. Find the layer labeled #, and on Frame 10 of that layer, right click and select Insert Keyframe:



[ insert a keyframe on Frame 10 of your # layer ]

- ii. After you have inserted a keyframe at Frame 10 of your # layer, you will see a solid black dot at that location. Now, click on the keyframe on Frame 1 of your # layer. You will notice that only your # text is selected in your work area.
- iii. With your # letter selected, press your left arrow key and move it a little to the left:



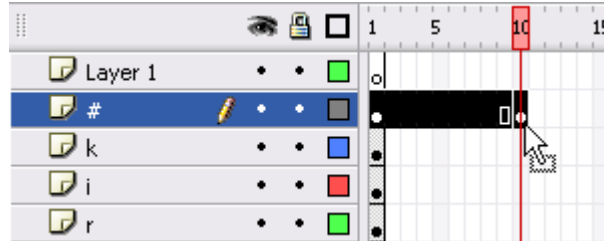
[ move the # letter left a little bit ]

- iv. Now, click on the keyframe you created earlier on Frame 10. Notice that it has the # letter closer to the other letters in its original position. What we need to do is find a smooth way to transition

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the letter from its new position further left to its original position in Frame 10, closer to the other letters.

- v. Click on the keyframe in Frame 1 of your # layer and drag your mouse right until you reach the keyframe in Frame 10 of the same # layer. Frames 1 through 10 should now be highlighted/selected:



[ select the frames between Frames 1 and 10 in your # layer ]

- vi. Right click anywhere on your selected frames and select 'Create Motion Tween'. Click anywhere else on your timeline to remove focus from the 10 frames.

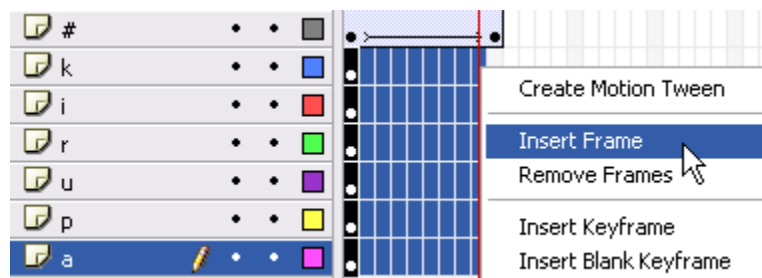
Notice that those 10 frames now have a slight purplish background color applied to them:



[ create a motion tween between Frames 1 and 10 of your # layer ]

- vii. If you were to drag your timeline slider (the partially transparent red box on the frame labels) between Frames 1 and 10, notice that your # key smoothly moves from left to right in your workspace.
- viii. No doubt, you would have noticed that all of your other letters disappear when your timeline slider goes beyond Frame 1. That is because we have not defined frames for the layers holding the other letters.

Select the first keyframe on Frame 1 of your k layer and drag diagonally down until you get to Frame 9 of your a letter layer. You should now see a large box of highlighted frames. Right click on any of those frames and select "Insert Frame":



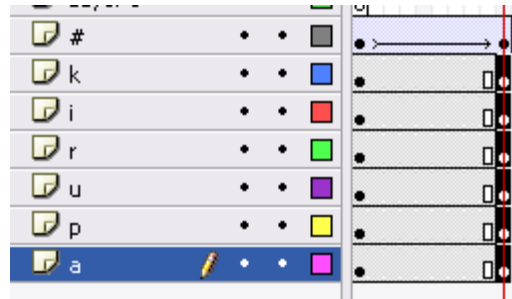
[ select the above highlighted frames, right click, and select Insert Frame ]

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Now that you have frames defined for all of the other layers, notice that when you drag your slider, the other letters remain visible on your stage. We have animated just one letter, so let's animate the rest of them.

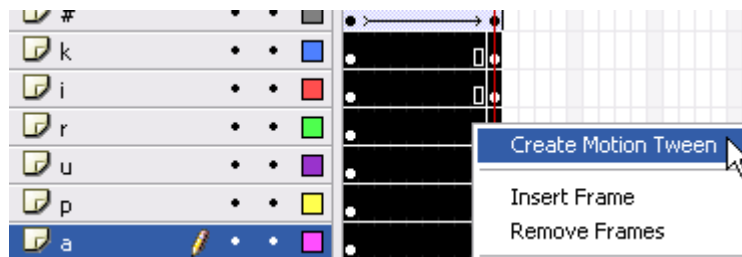
- ix. Let's create keyframes for the remaining letters. Click on Frame 10 of your **k** layer and drag straight down selecting only all of the Frame 10's in your other layers. Once all of those frames have been selected, right click on your highlighted frames and select **Insert Keyframe**.

Your timeline should look like the following image:



[ insert a keyframe in Frame 10 in your layers **k** through **a** ]

- x. Now, you need to create a motion tween between Frame 1 and Frame 10 of each layer. You can add a motion tween to each layer individually like you did for the **#** layer, or you can select all the Frames in the **k**, **i**, **r**, **u**, **p**, and **a** layers, right click on the selected frames, and select Create Motion Tween:



[ creating a motion tween between all of the frames ]

- xi. All of your letters should have a motion tween applied to them now. If you slide your timeline slider, you will see that, while all of your letters display, only the **#** letter is actually animated. Let's change that.

Make sure your slider is back on **Frame 1**, and click on the letter **k** on your stage. Press the up arrow key (or drag the **k** letter up with your mouse) a few times. Your letter **k** should be a few pixels above the rest of the letters:



[ on Frame 1, adjust the letter **k** by moving it up a few pixels ]

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- xii. Click on letter i, and move it down a few pixels. Move letter r up a few pixels. Alternate the initial position of each letter by moving it up, down, left, or right. Here is how my stage looks like after I adjusted the positions of all the letters:



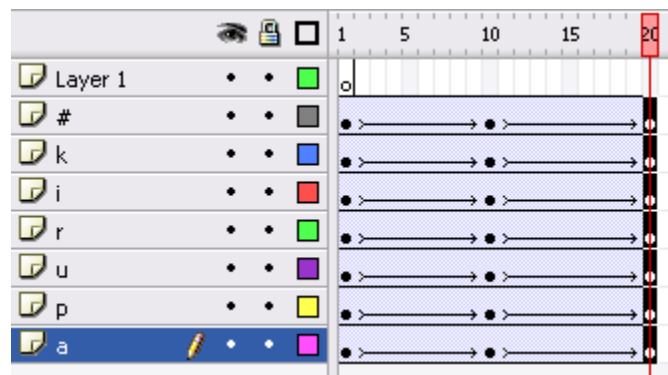
[ adjust all of your letter positions ]

Preview your animation now by going to File | Publish Preview | HTML. You will see your animation displayed in the browser. Notice that the letters move in from their random positions to spell out #kirupa you had initially.

We now have a simple animation, but it starts and ends abruptly. We will fix that in this page, and since you have some practice with working with your timeline, I will proceed a little faster in covering techniques:

- i. In your timeline, insert a keyframe in Frame 20 for all of the letters. You can do that by simply clicking on Frame 20, dragging your mouse down, right clicking on the selected column of frames, and choosing "Insert Keyframe".

After you have done that, you will notice that your newly inserted keyframes are automatically a part of your motion tween:

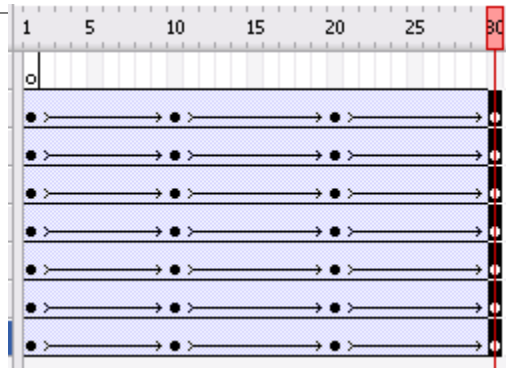


[ your timeline after inserting a keyframe on Frame 20 ]

- ii. I know this seems repetitive, but insert another layer of keyframes for all of the letters in Frame 30. Here is why this is being done. The first ten frames will fade your letters in, the second ten frames will display your letters, and the third section of ten frames will fade your letters out.

Your timeline after having added the third layer of keyframes should look like the following image:

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[ how your timeline should look now ]

- iii. So...let's add more keyframes. No, I'm just joking! We are done adding keyframes. Make sure your timeline slider is on Frame 30. If you look at your stage, you will see all of your letters neatly arranged.

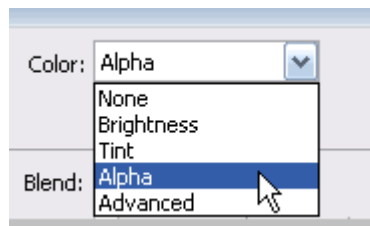
Similar to what you did for Frame 1, move all of the letters around your stage. Here is how my letters look on Frame 30:



[ letter arrangement on Frame 30 ]

- iv. Let's preview our animation so far. Instead of previewing the animation in a browser, let's preview it from within Flash. Click anywhere in Frame 1 and press Enter, and you will see how your animation looks from within Flash itself. Looks pretty neat, doesn't it?
- v. There is still some further refinements we can do. A fade-in and fade-out similar to my animation you saw on the first page of this tutorial would be really nice.

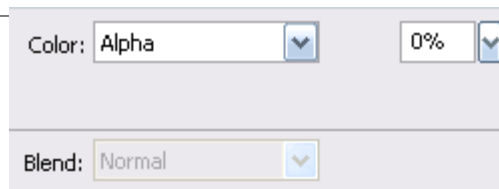
Click anywhere on Frame 1. Select all of your letters on the stage. Once you have selected all of your letters, look down at your Properties panel. Click on the drop-down menu labeled **Color:** and select the item for **Alpha**:



[ select the item for Alpha from the Color drop-down menu ]

- vi. Once you have selected the Alpha menu-item, you should see another text-field appear on the right with a number. Enter a value of 0

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[ enter a value of 0 in the text field to the right of the Alpha selection ]

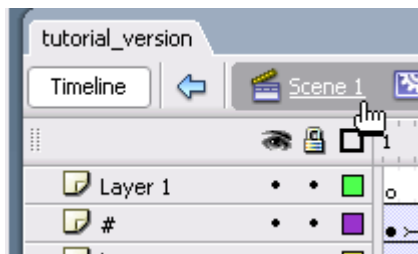
- vii. Let us repeat the above few steps for Frame 30. Click on Frame 30 in your timeline, select all of the letters on your stage, change the value of Alpha from the Properties Panel to 0. This is just what you did to the letters on Frame 1, with the only difference being you are on Frame 30 now.
- viii. Let's preview our animation again. Instead of testing in our browser or from within our timeline, let's test in the Flash player. Press Ctrl + Enter or go to Control | Test Movie.

The Flash Player appears with a preview of your animation. Notice that our text fades in and fades out thanks to the Alpha modifications we made from this page.

If you recall, in the first page, I had you convert your text into a movie clip. It might have seemed like a redundant step, for we were still using the timeline and nothing much looked different.

What the difference is, though, is that all of our animation and frames are self-contained within this movie clip. If I wanted to shift all of our letters over a bit, it would be a painful process to change each letter at each keyframe to meet our new location. The same applies for special effects and filters. It would be time-consuming to add a filter to every letter in every keyframe.

That is where the movie clip comes into play. Above your timeline, click on the Scene 1 tab:



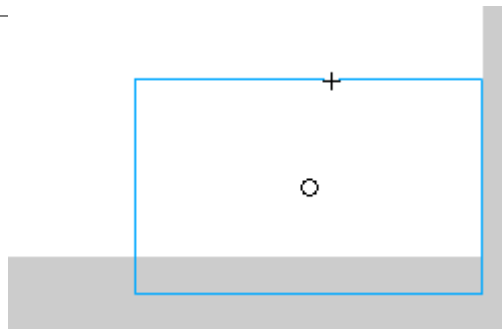
[ click on your Scene 1 tab ]

Notice that you are now back in your main timeline. Normally, the first frame of contents in any nested movie clip would be displayed. Since we set the alpha of all of our letters to 0 on the first frame of our movie clip, you don't see anything.

You can fix that by pressing Ctrl + A or by going to Edit | Select All. Your movie clip should now be selected. Use your arrow keys to move the movie clip to a new location, for example, bottom-right:



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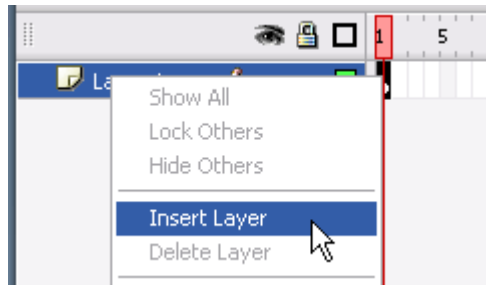


[ our movie clip moved to the bottom-right of our screen ]

If you preview your animation by pressing Ctrl + Enter, notice that all of our letters are now centralized to the bottom-left location. You did not have to go through and edit each letter individually. You simply shifted the container that held all of those letters to the new location instead.

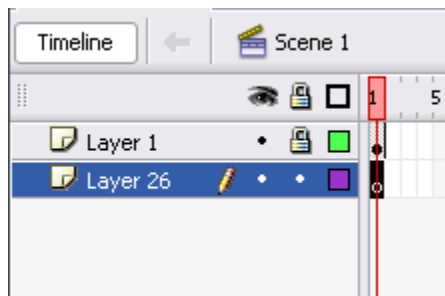
Now, let us get back to adding the cool drop shadows to our animation!

- i. Make sure your movie clip is selected. Since it isn't visible, you may have to press Ctrl + A, go to Edit | Select All, or simply draw a large enough selection box on your stage with your mouse by clicking and dragging on an empty area in your stage.
- ii. Once your movie clip is selected, press Ctrl + C or go to Edit | Copy. This copies your movie clip into memory.
- iii. We want to paste this movie clip onto a different layer. Right click on the Layer 1 layer on your timeline and select "Insert Layer":



[ insert a new layer in your timeline ]

- iv. The new layer would have been created above Layer 1. Click on your new Layer and drag it down so that it is positioned below Layer 1. With that done, click on the second circle indicating Lock Layer in Layer 1. Your timeline should look like the following image:



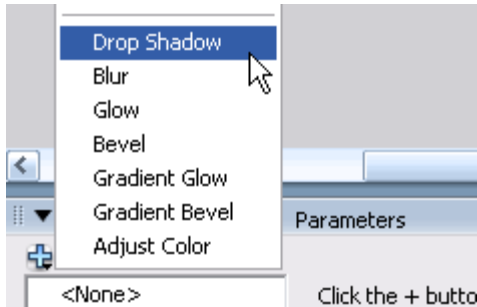
[ how your timeline should look after adding the new layer and locking Layer 1 ]

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## Locking Layers

When you lock a layer, you ensure that any objects on the stage in your layer can no longer be selected. That is useful when you are working with objects (movie clips in our case) that will be arranged behind another movie clip. Locking the movie clip on the top ensures that you don't accidentally select and modify the wrong movie clip.

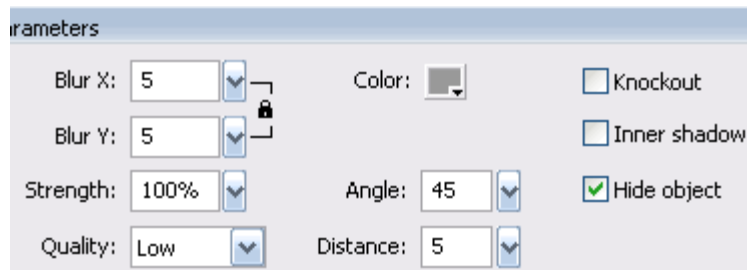
- v. Select the empty keyframe in your newly created layer, and press Ctrl + Shift + V or go to Edit | Paste in Place. You will see that the movie clip you copied a few steps earlier is now pasted in the same location you originally copied from.
- vi. Make sure the movie clip is selected, and in your Properties Panel, click on the Filters tab. You should see a small white text area with a blue plus graphic. Click on the plus graphic and select the option for Drop Shadow:



[ from your filters tab, click the plus graphic and select 'Drop Shadow' ]

- vii. Your Properties Panel will now provide you with parameters of your drop shadow you can adjust. The default values are good, but the one modification I made was changing the color of the drop shadow from black to a medium gray.

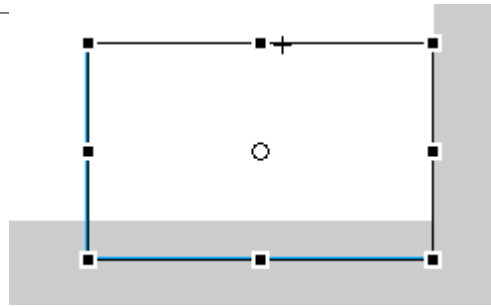
Also, this is really important, make sure the check the box for **Hide Object**



[ your Shadow properties panel ]

- viii. Now, preview your animation. Notice that your text now has a drop shadow attached to it! Our drop shadow is not angled though, so let's implement that feature.
- ix. Right click on your movie clip and select the menu item for Free Transform. Your movie clip should now have a series of boxes placed on its edges:

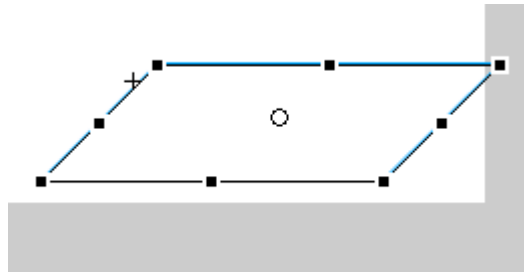
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[ right click on your movie clip and select Free Transform ]

- x. With the Free Transform tool, you can both resize AND skew your movie clip. Skew your movie clip right by clicking in between the two-right and top-middle boxes and dragging to the right. You will notice your movie clip has a slight right-leaning slant.
- xi. Let's resize the movie clip now. Click on either of the top/bottom center square and drag towards the center of your movie clip. You will notice that your movie clip shrinks a bit.

Your movie clip should be shaped similar to the following image:



[ how your movie clip should look after transforming ]

- xii. If you preview your animation, you will see the drop shadow positioned at an angle to look as if the light is hitting your text from a more natural perspective. Of course, you may have to adjust the position and scale of your shadow, but those are just minor details that you can fix easily.

You are now done with creating a simple animation in Flash 8 that employed many interesting features from Flash 8! This tutorial is by no means comprehensive, and there are a lot of useful features that I hope to cover in future tutorials.