

Making eCards Can Be Fun!



A Macromedia Flash Tutorial

**By
Mike Travis**

For

**ETEC 664
University of Hawaii
Graduate Program in Educational Technology**

April 4, 2005

The Goal

The goal of this project is to create a little eCard that you can email to a friend. For this project, I have chosen to have a crab walk across a sandy beach from off the screen. He will stop in the middle of the screen and say, “Smile! Don’t be Crabby! From Your Friend, Mike!”

Here is a couple of screen captures to show you what the final product will look like.

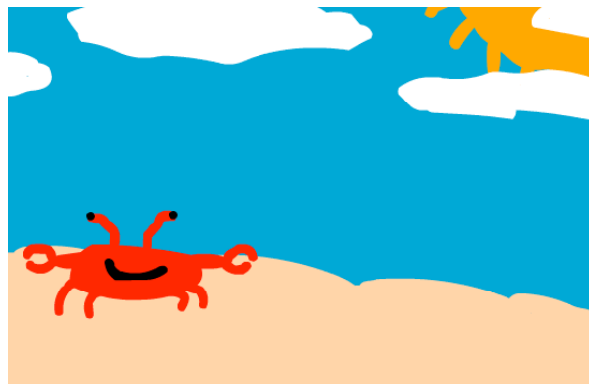


Table of Contents

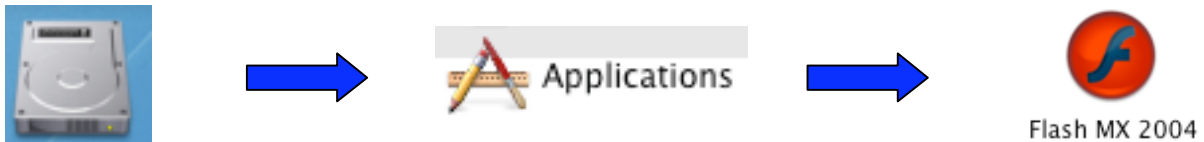
This tutorial can be completed in order or be used as standalone pieces to learn different aspects of Macromedia Flash.

1. Opening Flash / Saving a Flash File
2. Flash Windows and Layout
 - a. Default Layout
 - b. The Toolbar
 - c. The Layer and Timeline Menus
 - d. The Stage
 - e. The Properties Window
 - f. The Panels
3. Drawing a Background
4. Making a Symbol
5. Animating a Symbol
6. Adding a Text Message
7. Making the Movie
8. Sending the Movie
9. Future Enhancements

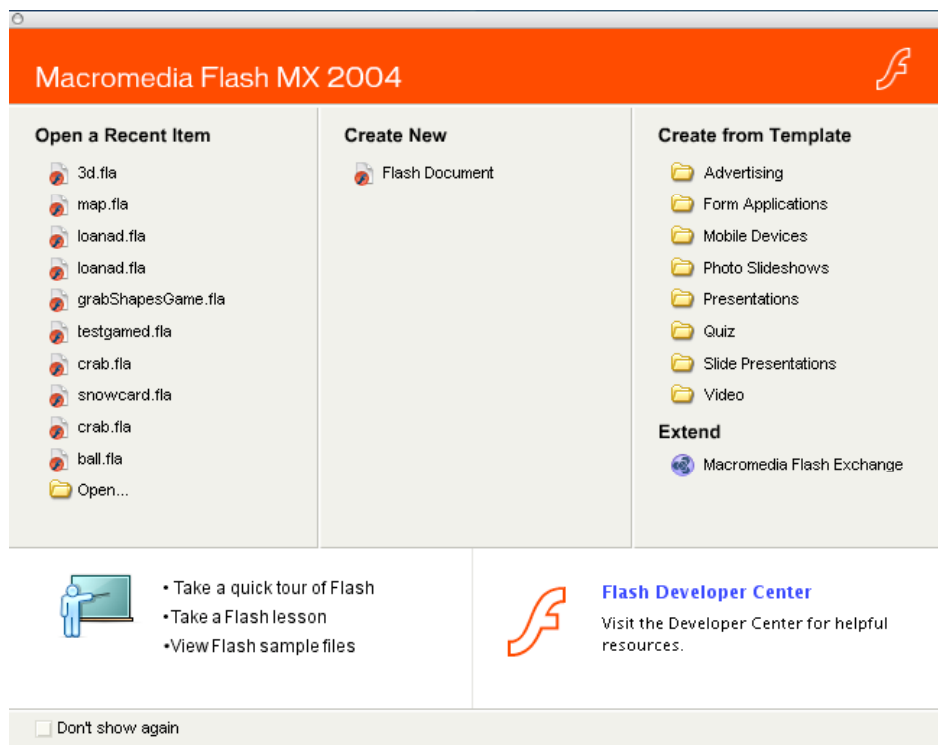
Opening Macromedia Flash

The first step in starting Flash is to open a new Flash file.

1. The Flash application should be located in your Applications folder. Double-click on your hard drive icon. Then, go to the Applications icon and open the folder called “Macromedia Flash MX”. Finally, click on the Flash MX 2004 application icon.



2. Upon opening Flash, you may see an introduction screen like this:

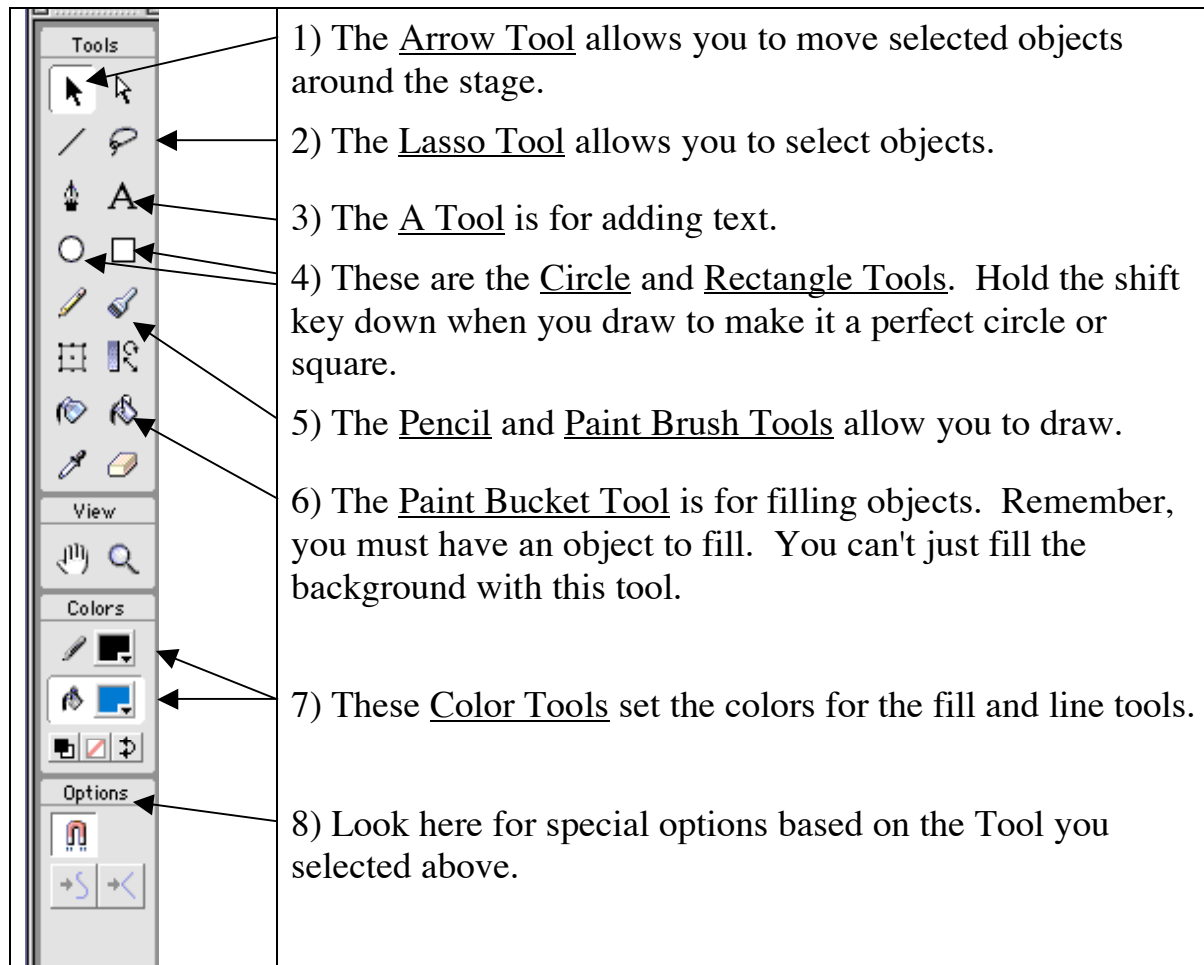


If you do, simply click on **Flash Document** under the Create New menu. You should now have an open Flash document window. You are ready to continue.

The Toolbar

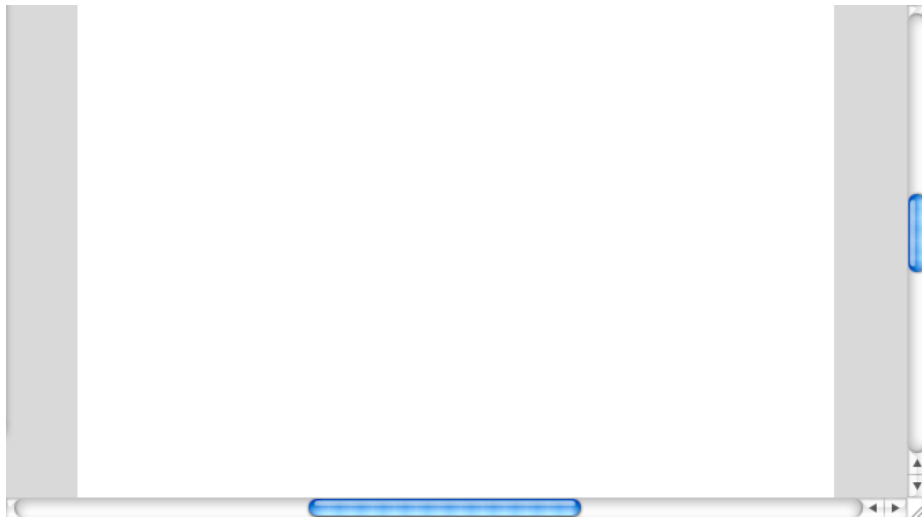
The toolbar contains all of your drawing tools and allows you to draw objects, backgrounds, resize or capture parts of an image and so much more.

Keep your tool bar open at all times. If it disappears, go to **Window/Tools** to re-open.

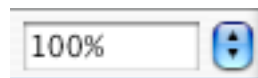


The Stage

The Stage is where you will draw everything that appears in your animation. Items that are drawn outside of the white area will not be seen when the movie is made.

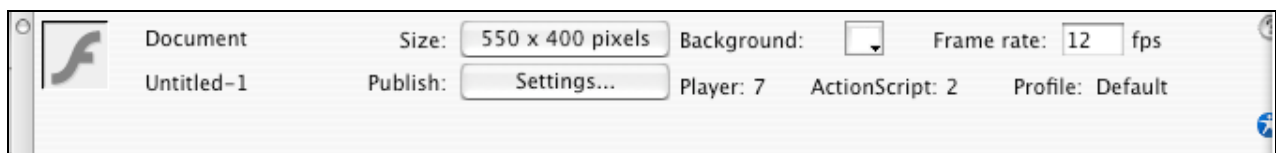


To resize the stage window to a bigger or smaller size, use this pull down menu in the top right hand corner: At 100% the stage and the completed movie size are the same.



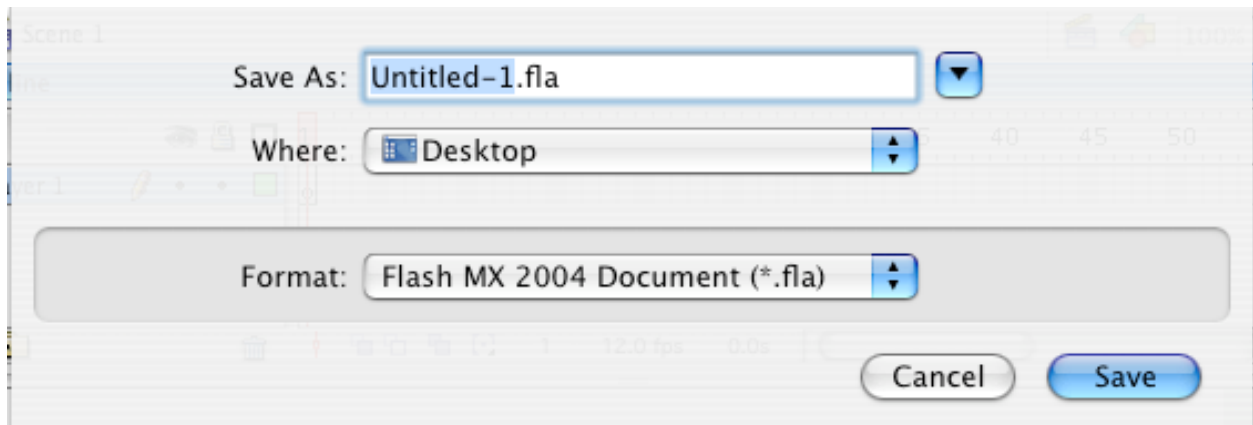
The Properties Window

The Properties Window will give you significant information about the frame or object you are working with. It will also provide you with information on fonts and colors as you draw text and objects. It can be re-opened, if closed, by going to **Window / Properties**.



Saving a Flash File

Flash files are saved with the .fla extension and can only be opened in Flash. To save your file, go to **File / Save**. You will then see this screen:



Make sure to change the name to something more descriptive. For this exercise, let's call it **ecard.fla**. Make sure that you keep the .fla extension at the end. After changing the name, hit **return** or click on **Save** to complete the saving.

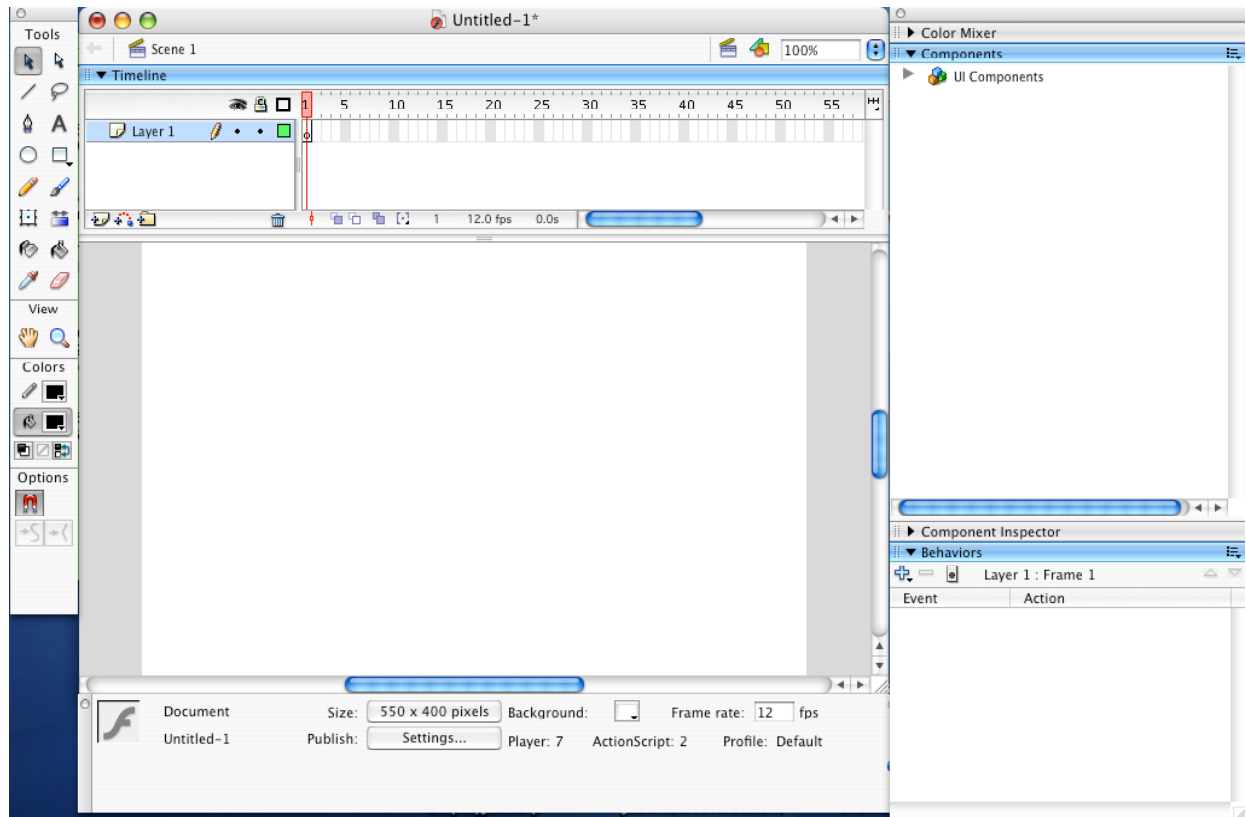
As you working, take the time to **save frequently**. This will ensure that you do not lose your work if the computer or application crashes. Remember that holding down the Apple key **⌘** and hitting the **S** key will automatically save.

It is good to remember this saving shortcut for any application you use. Just remember it as “Apple-S”.

In a later section, we will learn how to turn our .fla Flash file into a .swf Swift file, which will allow others to see the animation as a movie.

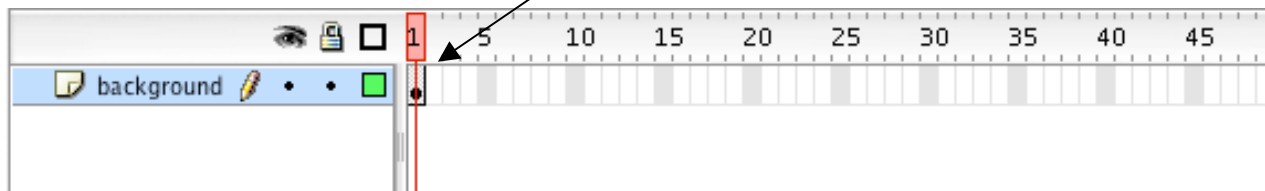
Opening Macromedia Flash

This should be the initial screen you see. If your screen looks different than this, go to **File / New ...** and start a new Flash Document. If the layout is different than below, go to **Window / Panel Sets / Default Layout**.



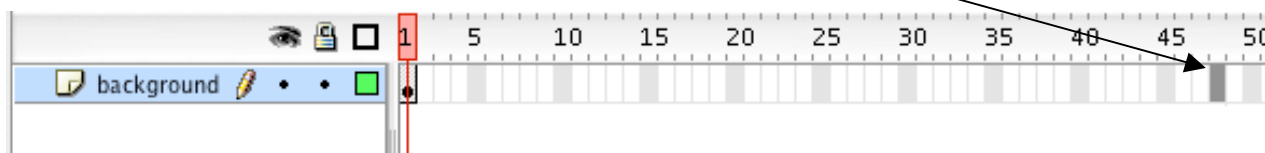


6. The final step for the background is to explain the timeline. Take a look at the timeline. You will now notice that the dot in the layer for the background is now filled. This is called a KeyFrame. This dot contains all the information necessary to show the background.

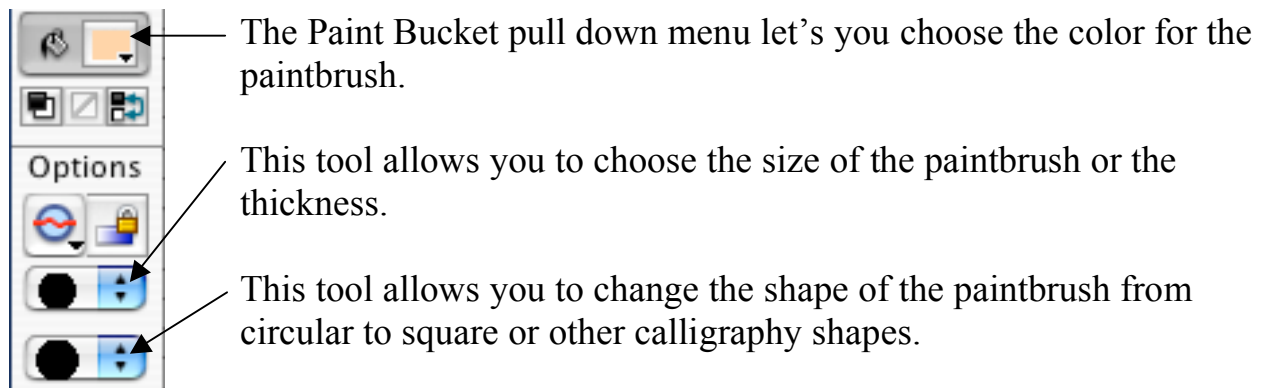


Notice that the keyframe is only located in Frame 1. This means that if we made this a movie, you would only see the background layer for one frame and then it would disappear. We need to extend the time. In other words, we need to add frames to the background layer so the background stays on the stage longer.

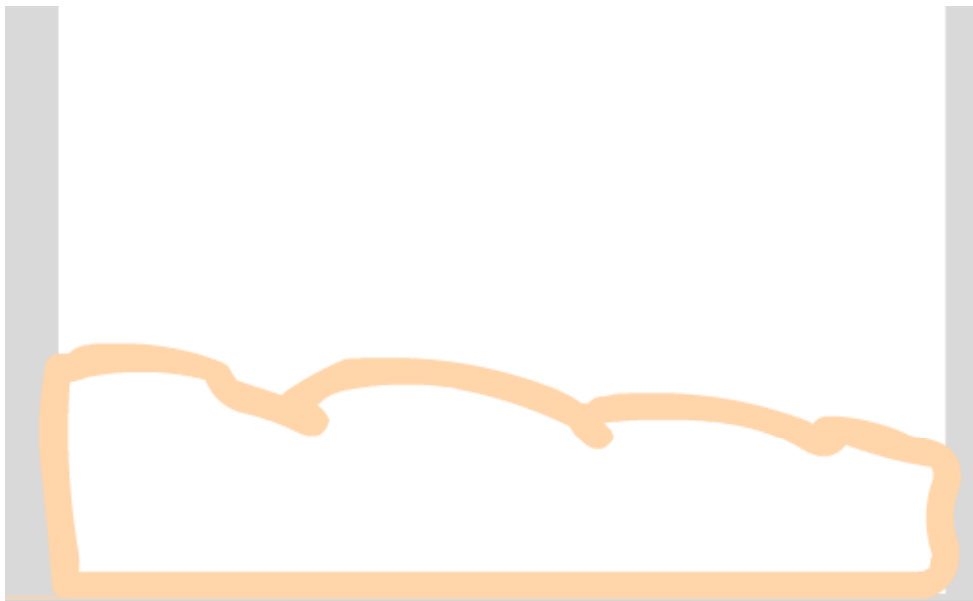
To do this, let's click on the 48th frame in this layer.




Now, go to **Insert / Timeline / Keyframe**. This puts in an additional keyframe at Frame 48, but it also adds gray area between the keyframe at frame 1 and frame 48.



Once your color is chosen, now draw the outline for the sandy hills. You will need to draw all sides of the sand, as the Paint Bucket will only fill a closed area. See my example below.



4.  Now, click on the Paint Bucket tool, choose a color, and click in the sandy area to fill it.

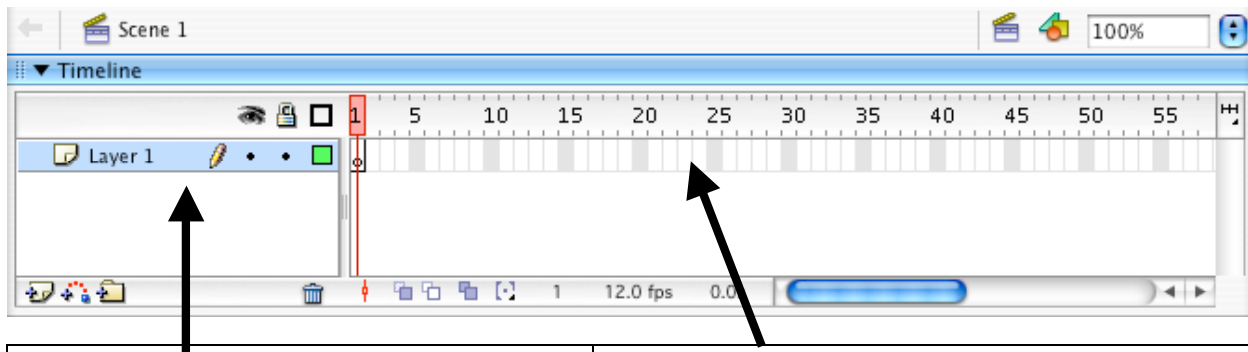


If you are clicking and it is not filling, pull down this option menu to "Close Large Gaps". You might have left a gap when you drew the outline.

5. If you want to add a sun or some clouds, go for it! This is your project!

The Layer and Timeline Menus

The Layer Menu is where you place the different objects or backgrounds. The Timeline shows which layers are present or active during each moment in time.





Layers are different objects or backgrounds that are separate from each other. Layers are how you make things look 3-D or move over each other. The layer that is at the top of the list is the layer that is on top. For example, if I wanted the sun to move across the sky. The Sun Layer would be on top with the sky layer below it.


The **Timeline** is listed in frames. Most Flash animations are designed with 12 fps (frames per second). So, one second of time would take up 12 frames.

If a frame is white, then the layer is not active for that frame of time.

Other Important Icons

 In the Layers Menu, clicking here allows you to add more layers.

 **Scene 1** Above the Layers Menu, this shows which scene you are on.

 Above the Timeline, pull down this icon to change to different scenes.

The Panels

The Panels provide more details about different components used to enhance an animation. Probably the most valuable tool is the Color Mixer, which allows you

to mix multiple colors in gradients for objects or for painting lines.

When gradients are used, shapes begin to look 3-D. For example, instead of a flat button,



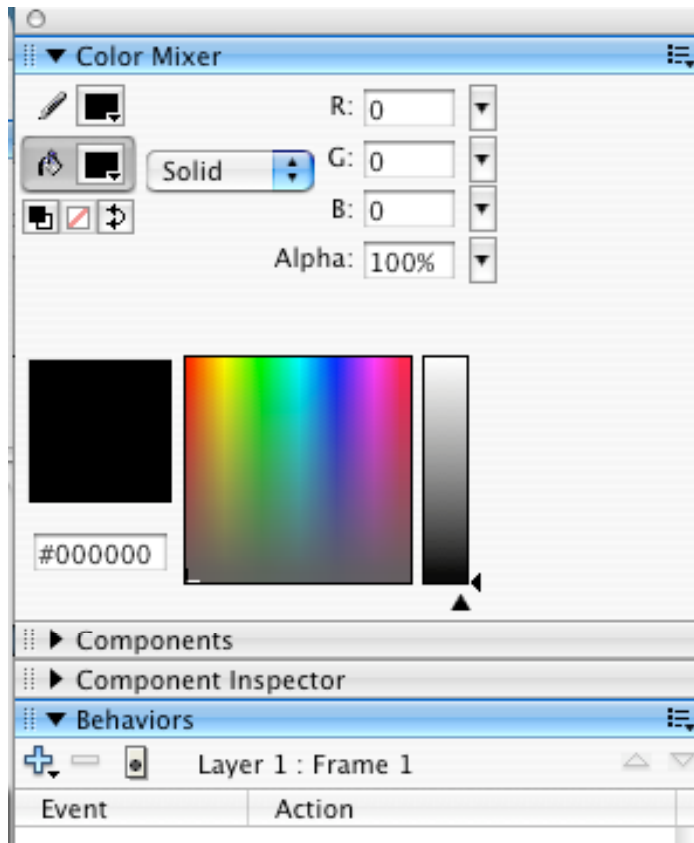
Button

with a gradient, it looks like this.



Button

The pull down menu allows you to pick the type of mix. Radial mixes colors from the middle in a circle, while Linear mixes left to right.

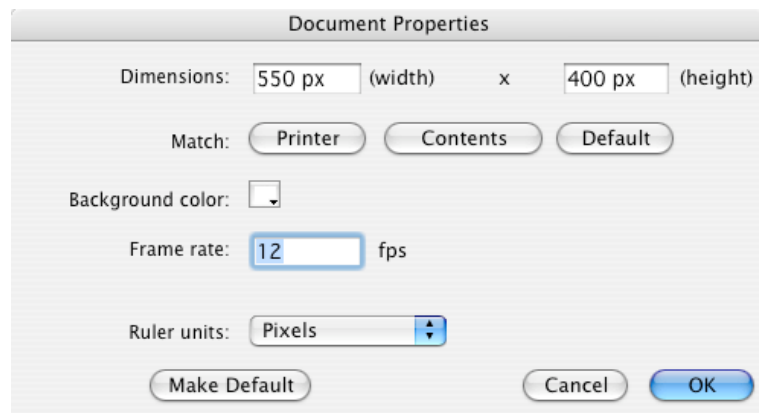


Drawing a Background

This lesson will teach you how make a background for your animation.

Now that you have an Open Flash File, and you have saved it as “**ecard.fla**”, you are ready to start drawing!

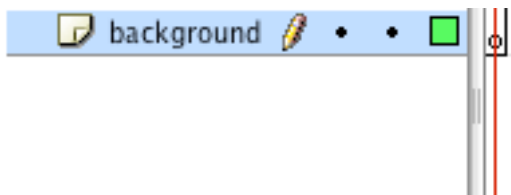
1. Let’s start by picking a color for the background on all scenes. To do this, go to the pull down menu **Modify / Document ...** you will see the window below.



The dimensions allow you to resize the project. Let’s leave this at the default setting. Pull down the **Background Color** menu and click and hold on this to pick a background color. If you are doing a daylight scene, you might want to choose a nice blue background. When you are finished, click **OK**.

Your stage should now have that new background color.

2. The first step is to label the layer as the background layer. This will really help in the future when you have multiple layers.



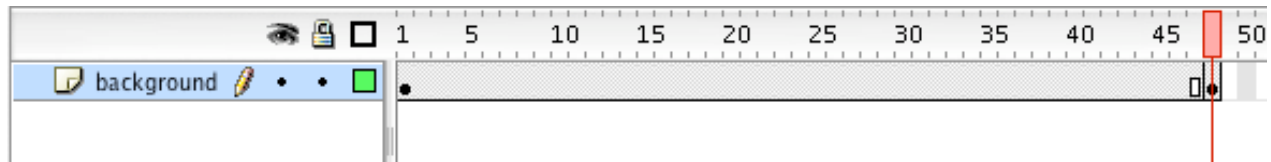
Double-Click on “Layer 1” and change the name of the layer to “background”.

3. For this project, let’s create a beach in the lower half of the screen for our crab to walk on. To do this, you will first outline the sandy area and then fill it.



Click on the Paintbrush in the Toolbar to choose the color you will draw.

This will tell Flash that we want the background layer to be on the stage from Frame 1 to Frame 48, or approximately 4 seconds.



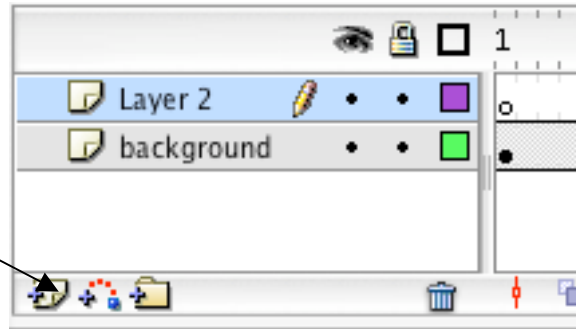
Now, we need to create our Crab Object for the screen.

Making a Symbol

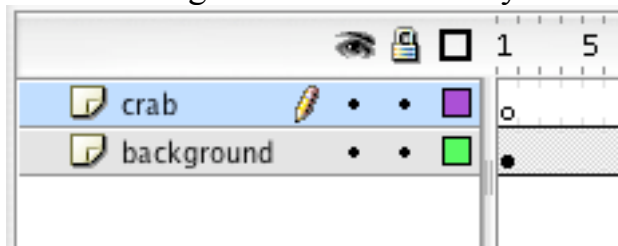
This lesson will teach you how to create a symbol.

1. Start by creating a new layer. You can do this by clicking on the Make New Layer button, which is below the Layers.

This will create a new layer. In most cases, it will be called “Layer 2”, but it might be called Layer 3 or something else like that.



2. The next step is to label the layer as the crab layer. Double-Click on “Layer 2” and change the name of the layer to “crab”.

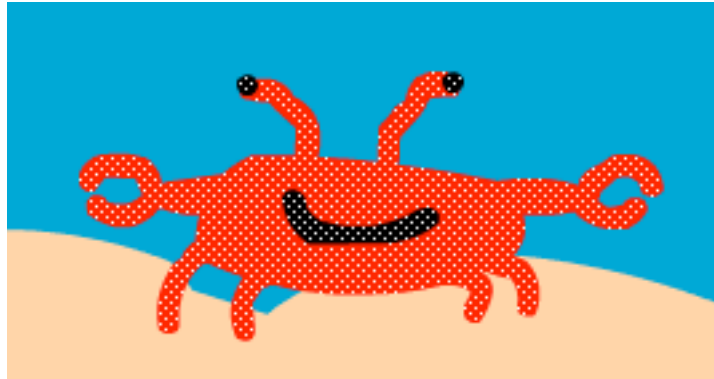
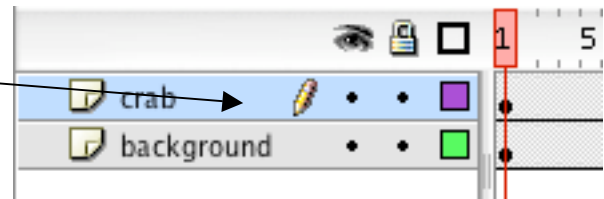


3. With the crab layer highlighted, you should now draw your crab on the screen. (This is very important! Make sure that the crab layer is highlighted and not the background layer. If the wrong layer is highlighted, the crab will be drawn in the wrong layer.)

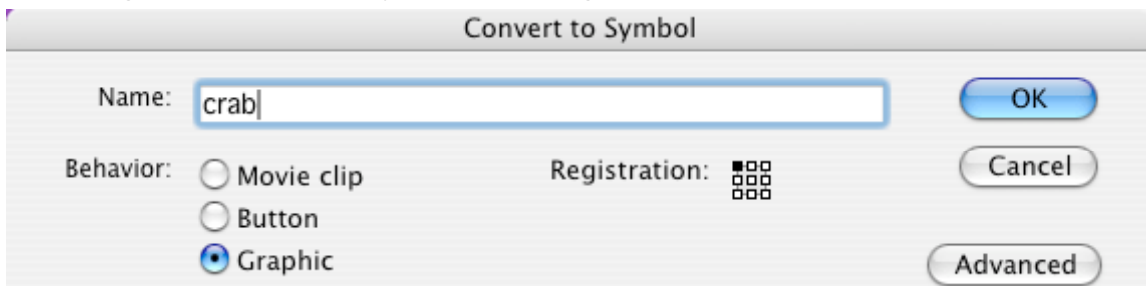


4. Once your crab is complete, click again on the crab layer.

This should highlight the crab on the stage, like below.

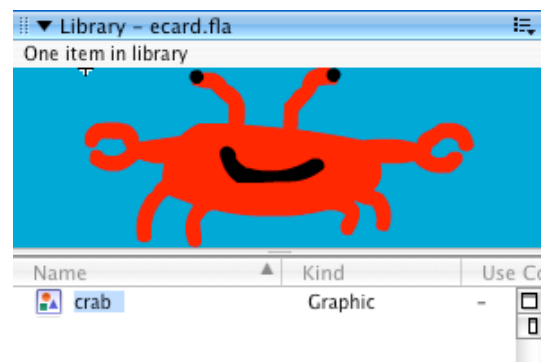


5. With the object highlighted, go to **Modify / Convert to Symbol**. Make sure it is set for graphic and name it something descriptive – this is important if you ever want to go into the Library and use it again. Then click "OK"



Your object will now have a blue line around it to indicate it is now a graphic symbol.

Making the graphic a symbol allows you to use the graphic in future scenes. You can see all of your symbols you have made by going to the Library, which stores them. Go to **Window / Library** and if you click on the crab symbol you will see it stored in the library. In the future, if you wanted to use this symbol, you would simply drag it onto the stage.

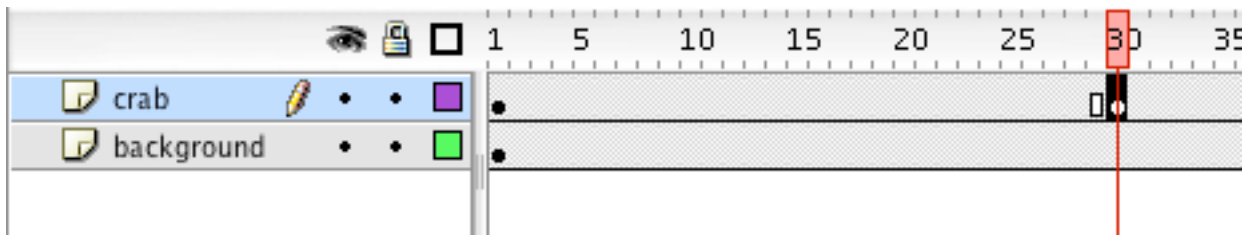


We are now ready to make our crab animate across the screen.

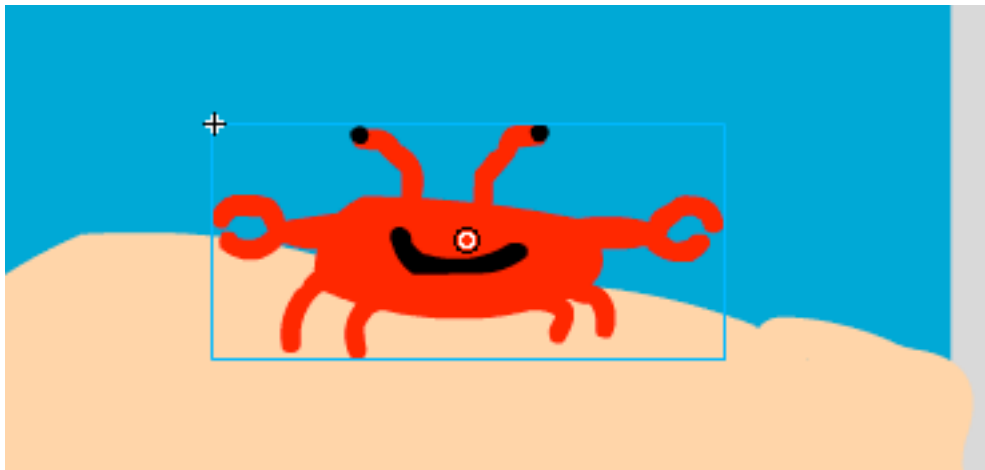
Animating a Symbol

This lesson will teach you how to move a symbol in a straight line.

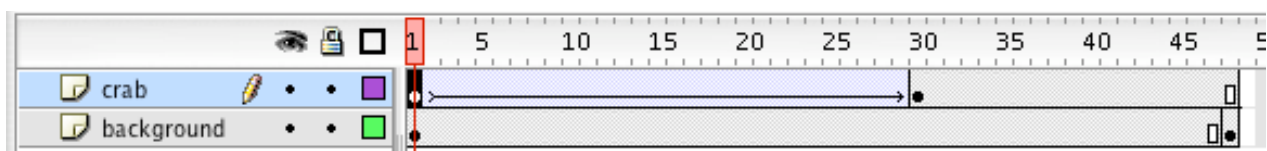
1. Start by clicking on your crab to highlight it. Now, move your graphic to where you want it to start on the stage. Many times this is off the screen.
2. Now, click on the frame in the crab layer where you want the crab to stop moving. Remember, that every 12 frames are equal to one second of time. (I usually start with 30 frames; you can always adjust the amount of time later on.) Highlight the 30th frame in the Crab Layer and go to **Insert / Timeline / Keyframe**. This inserts the symbol again at frame 30 and makes it so the graphic will appear for all frames in between.



3. Now, drag the crab to where you want it to end after the animation.

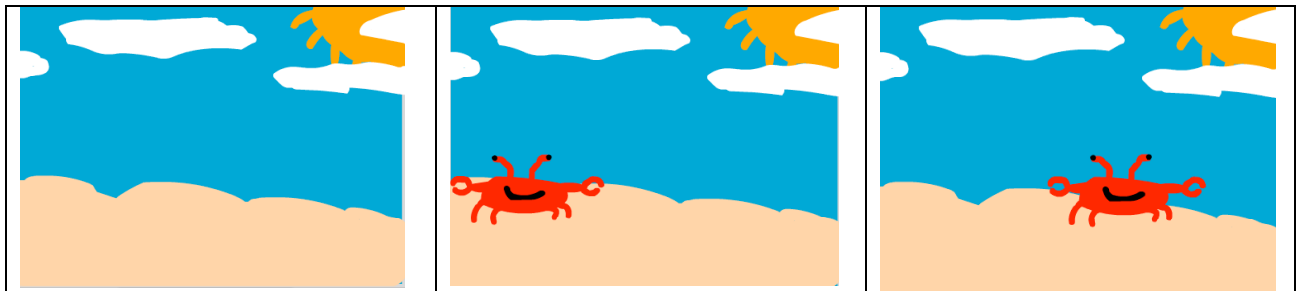


4. Finally, click on the first keyframe again and go to **Insert / Timeline / Create Motion Tween**.



If you have done the animation right, you should see an arrow from the first keyframe to the last. Flash has generated the animation from the first point to the last. It is time to see your results!

Go to **Control / Rewind** – this rewinds the animation to the first frame. Then, Go to **Control / Play** – this should play your animation and your crab should walk across the screen. To see it again, just hit the **return** key and it should rewind and play.



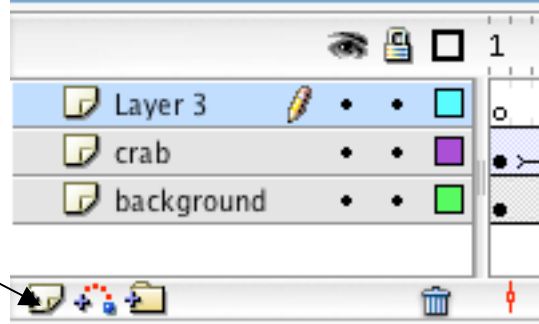
If you don't like where the crab starts or end, it is very easy to change. Just click on the keyframe and then move the crab to the point you want it to be at that point.

Adding a Text Message

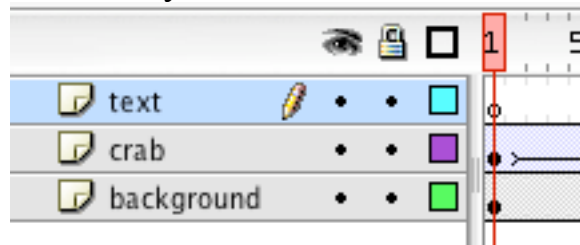
This lesson will teach you how to add a text message to your page.

1. Start by creating a new layer. You can do this by clicking on the Make New Layer button, which is below the Layers.

This will create a new layer. In most cases, it will be called “Layer 3”, but it might be called Layer 4 or something else like that.



2. The next step is to label the layer as the text layer. Double-Click on “Layer 3” and change the name of the layer to “text”.



3. With the text layer highlighted, you can now write text on the screen. (This is very important! Make sure that the text layer is highlighted and not the background or crab layer. If the wrong layer is highlighted, the text will be drawn in the wrong layer.)



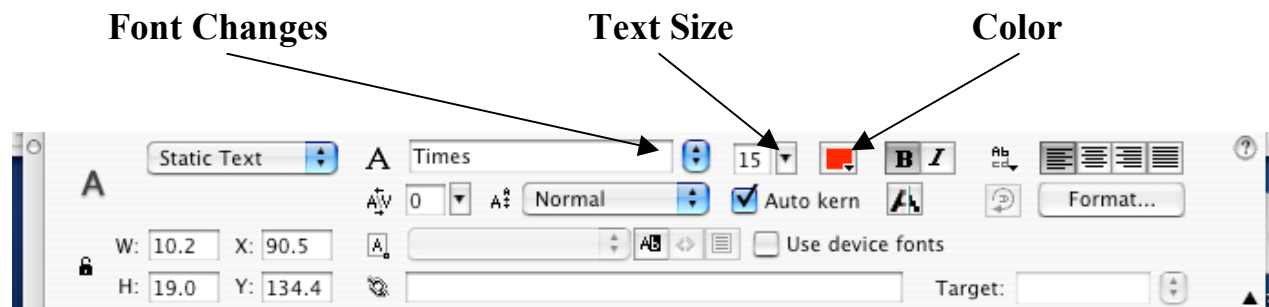
Click on the “A” in the toolbar to write text. Then, click somewhere on the screen and a cursor will appear, ready for you to type.



4. Now, type your greeting for your eCard. I typed this:

Smile! Don't be Crabby! From Your Friend, Mike!

Finally, let's make it bigger and more creative. For changes, to the text, start by highlighting the text. Then, use the Properties Window to make changes. The Properties Window will allow you to change the font, color and size of the text you want to type. Notice that with the text highlighted, as you make changes they happen automatically so you can see the results.



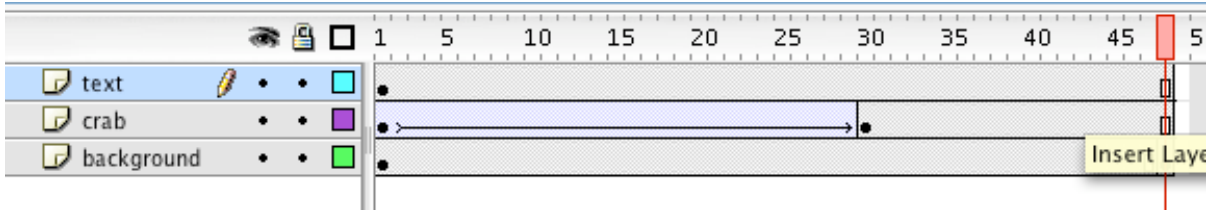
Once you have the text formatted the way you want, click on the arrow in the toolbar, and then you will be able to move the text to the place you want it to be on the screen.

Go ahead and hit the **return** key to see your animation run. Cool, huh? You now have a great scene with a background, moving crab and a message!

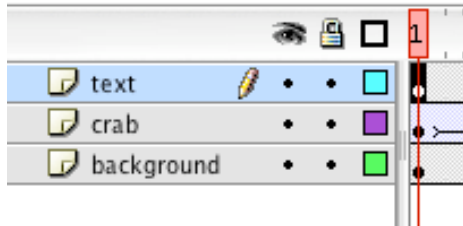
You are ready to make a movie, unless you want a few more refinements. (Skip to the Make Movie Section, if you are ready to finish.)



5. Let's look back at our timeline. Notice that all three layers extend the entire time of 48 frames. When we make the background layer that long, each future layer will take the entire time as well without adding them.

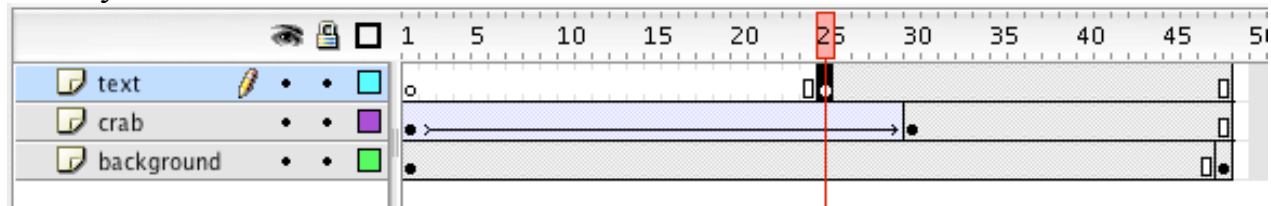


One refinement I like to do is to move the text so that it doesn't start until after the animation is almost complete. This way the user will focus on the crab first, rather than the message. Let's move the text layer so that it starts at about frame 25.



To do this, click and highlight the keyframe for the text layer and release the mouse button.

Then, click and hold on the highlighted keyframe. Drag it out to frame 25 in the text layer and release it. See below:



Notice the white area on the text layer from frames 1 to 24. Try running your animation again by hitting the **return** key. You might have to hit it twice to get the animation to start at the beginning. The text doesn't appear until Frame 25, we have done it!

Now, onto making the movie! Only two steps left!

Making the Movie

This lesson will teach you how to turn your animation into a SWF movie.

1. You should now have a little eCard animation with a background, moving crab and message. Of course, there is much more we could do with this project to make it interesting (see Future Enhancements for some ideas). But, now it is time to prepare the animation for viewing by your friends. And, guess what, it is only one simple step!

Go to **Control / Test Movie**. Depending on the speed of your computer, it might take a minute for the computer to render the SWF file. What should happen is a small window will pop up with your eCard. Notice it is now animated on its own. Also, notice that it will keep repeating the animation over and over again. One last thing – the window will have a file name – ecard.swf. This file has been prepared and saved on your computer in the same folder location as the original Flash file – ecard fla – that you created.



Finally, it is time for your friends to see your movie. Go ahead and close the SWF file window and quit Flash. Go to the final section to send your movie.

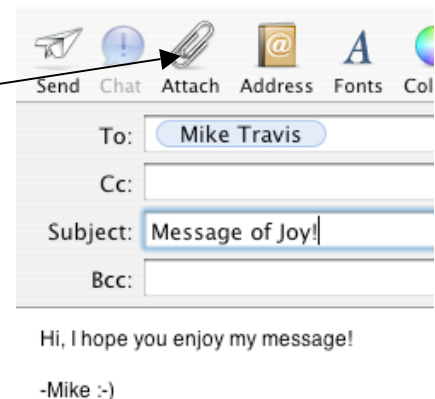
Sending the Movie

This lesson will teach you how to send your SWF movie to someone else through email.

1. Start by opening up your email application.
2. Now, **Compose a New Message**. Feel free to put a short note on the email explaining what you have sent. I have included some text below you could add to the message with a link in case the person is unable to open the SWF files. Most modern computers have the ability to open and play SWF files, but for those that don't, there is a free download of the software necessary to play the file.

I am sending you a SWF file, which is a kind of animation file that is very common on the Internet. You should be able to just double-click on the file and it will play. If it doesn't, you may need to download Flash Player. This is a free download that will allow you to view Flash animations. To download Flash Player, go to the follow website and follow the directions for downloading and installing Macromedia Flash Player. Then, come back to this email and try again. Here is the link: <http://www.macromedia.com/downloads/>

3. Once your note is complete, click on **Attach** to attach the SWF file.



4. Now, search through the files for the **ecard.swf** you created and click on **Attach File**. The file is now attached to your email and you can **Send** it.



That's it! Your recipient should receive it as soon as he/she opens the email.

Future Enhancements

Now that you have had your first journey through the world of Flash, it is time to think about future enhancements to this project. While the details are not included here on how to make these changes, please seek out a tutor for help, access resources online such as: <http://www.macromedia.com>, or buy a book to give you more information.

Other ideas:

- Animate the crab so its legs and crabs move as it walks.
- Adding the sound of the beach or surf.
- Adding a recorded message.
- Making the text fade onto or animate on the screen.
- Have the crab walk into the water and fade off into the surf.
- Animate the sun and clouds.
- Animate the waves to flow.

Other Ideas related to a Future Educational Project:

- Animate things in space science like a comet revolving around the sun, a supernova occurring, or simulate life on another planet.
- Show how cells divide and re-group for Biology or Chemistry.
- Create slideshows including music to give History or English students a look into another era in time.
- Show how problems can be solved in math through a step-by-step animation.

For further information on this project, please contact Mike Travis at ASSETS School – email – mtravis@assets-school.net