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Hidden, Animated Rollover Menu's

Author: JLampitt | Website: I'm working on it...

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Creating Animated Menu's with Roll Over/Out Actions

I've been using Flash for a while but as an experienced Director and Lingo user I took on the task of learning more than just the Flash basics. Like you I've seen all kinds of cool stuff on the web using animated buttons and such. I wanted to create much more than pretty buttons... how about cool hidden menus that could be animated! This is a long tutorial so be sure you've got enough time. I guesstimate it'll take you about an hour or so. This tutorial was created in Flash 4.

Preview:

Home

A Word or Two Before We Start:

First of all let me say I'm not a technical writer. I'm a designer first, programmer second. Now, let's get on with it...

The life force behind any interactive, complex animation is movie clips. It's important to remember that movie clips can be nested and play their entire timeline even if the playback head isn't moving. For all you Director folks this is somewhat contrary to the methodology we're used to of looping in a frame or a series of frames while another piece of media like digital video or even a Flash animation play's it's timeline. This particular example uses only one movie clip but it's fairly hefty and I was able to duplicate functionality by using multiple movie clips. However, the previous

method requires a little more extensive use of Tell Target. There are lots of hidden Actions and a basic knowledge of specifying targets on different layers is recommended but not required. Before starting on your own endeavor make sure you map out your menu. Get it clear in your head by putting it on paper first. If any of this sounds like Greek to you, you'd better go back and read up on Tell Target, and multiple Timelines in the Flash manual.

Getting Started:

For this tutorial we'll just duplicate the above movie.

It goes without saying but to be thorough... open Flash 4. Create a new movie 200 x 200, 15fps. We'll start by creating most of the symbols necessary to complete the project. To apply this menu technique in a real project you may have to go about creating pieces as you go.

1. Create a new **Button** symbol and name it "Center". (This will serve to activate the menu.)
2. In the "Up" frame, create a circle 20 x 20, filled and stroked with black and center it with the "Use Center Point" option checked.
3. In the "Over" frame create a new Keyframe. Fill the circle with a different color (I used green) and place a text label underneath. Label this button "Home".
4. In the Library palette duplicate the "Center" **Button** symbol 4 times and rename each one differently. (I used "Circle 1", "Circle 2", etc.)
5. In each new **Button** symbol change the circle shape fill color in the "Up" frame as well as the fill color and the label name in the "Over" frame. (I made each fill in the "Up" frame of each symbol different to make it bluntly obvious which button I was dealing with.)
6. Go back to the "Center" **Button** symbol and open the symbol for editing.
7. Double-click the circle graphic in the "Up" frame. (Double-clicking ensures you've selected the fill and outline of a shape.)
8. Select "Convert to Symbol" from the "Insert" menu or press F8. You should see a new **Graphic** symbol appear in the Library. Name it "Dot" and ensure it's centered with the "Use Center Point" option checked.
9. Create a new **Graphic** symbol in the Library and name it "Background". Open the symbol for editing.
10. Create a circle. Select and delete the outline. Using the "Object" palette, select the shape and resize it to 150 x 150. Center it with the "Use Center Point" option checked. Fill the circle with a dark blue. Close the symbol and return to "Scene 1".
11. Again, create a new **Graphic** symbol in the Library and name it "Mask". Open the symbol for editing. (We're going to make the "net" that catches mouse roll over/roll out events which in turn will deactivate the menu.) *(Follow these next steps very carefully!)*
12. Create a square shape. Select and delete the outline. Again, using the "Object" palette, select the shape and resize it to match the window size of your movie (in this case it's 200 x 200). With the "Use Center Point" option checked position the shape centered on the "X" axis and slightly below on the "Y" axis. (Mine is set to X:-100, Y:-85.) Fill the shape with a neutral color like gray.
13. Open the symbol "Background", select the circle shape and copy it.
14. Open the symbol "Mask" and "Paste in Place" the circle shape over the top of the gray square shape.
15. With the symbol "Mask" still open, deselect the circle shape by clicking in the area around the two shapes now on screen.
16. Reselect the circle shape and delete it. We've now punched an exact hole through our "net". I'll explain the madness later.

Moving Forward:

OK! Did you make it? I hope so. Now we'll proceed by creating the navigation menu in a **Movie Clip**. Remember, **Movie Clips** are independent timelines (say it again to get the full effect... in-de-pen-dent time-lines). They are not constrained by other timelines within your Flash movie. I feel this is a major stumbling block and sometimes hard for people to grasp but it's an important concept to understand. We'll build this layer by layer. Let's get into it!

Frame Actions & Labels Layer:

1. Create a new **Movie Clip** symbol and name it "Navigation".
2. With the symbol open for editing rename the first layer to "Frame Actions & Labels".You'll be using this layer for actions and labels relevant to the entire timeline. (I like to make my work as easy to interpret as possible. Six months from now if I have to revisit the project or I want to use a portion of a project for something else, I want to be able to identify key areas of my work and be able to put myself right back into that same mode of thought that I was in before. I don't want to waste valuable time searching layers and keyframes for key items that made my creations work. This is especially valuable in a environment where someone else could be picking up your work at a later date or using it in their projects!)
3. Insert blank Keyframes in Frames 1 (already exists), 3, 16, 17 and 25. Use the F7 key.
4. In Frame 1 attach the following Frame Action

    ```
    Stop
    ```

5. Label Frame 3 as "Activate Nav"
6. In Frame 16 attach the following Frame Action

    ```
    Stop
    ```

7. Label Frame 17 as "Deactivate Nav"
8. In Frame 25 attach the following Frame Action

    ```
    Go to and Play (1)
    ```
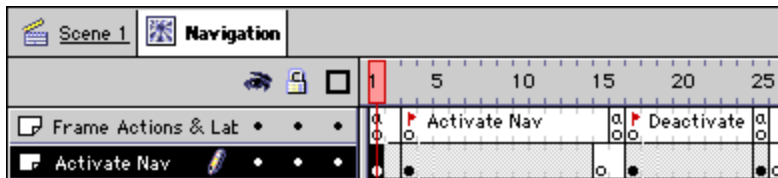
Activate Nav Layer:

1. Create a new layer below the previous and name it "Activate Nav".
2. In Frame 1 place an instance of the symbol "Dot" and center it with the "Use Center Point" option checked. You should have frames extending out to Frame 25.
3. Insert Keyframes at Frames 3, 17 and 25 (Use F6). Then insert Blank Keyframes at Frames 15 and 26 (Use F7).
4. Select the Keyframe in Frame 1. Modify the Instance Properties (Cmd+i, Mac; Ctrl+i, PC) and make this instances' behavior definition as a "Button" with Tracking Options set to "Track as Button"
5. With the Instance Properties dialog box still open, click on the "Actions" tab and assign the following action.

    ```
    On (Roll Over)
      Go to and Play ("Activate Nav")
    End On
    ```

So far your timeline should look like this:

Home Layer:

1. Create a new layer below the previous and name it "Home".
2. Place a Blank Keyframe (F7) in Frames 15 and 17.
3. Select the Blank Keyframe in Frame 15 and place the **Button** symbol "Center" in that Keyframe. Center it with the "Use Center Point" option checked.
4. Open the Instance Properties dialog box as before, select the "Definition" tab and ensure that the Behavior is set to "Button" and Tracking Options is set to "Track as Button". These should be the default settings for a **Button** symbol instance.
5. With the Instance Properties dialog box still open, click on the "Actions" tab and assign the following action. An explanation will follow.

```
On (Release)
  Play
  Begin Tell Target ("_level0")
    Go to and Play ("Home")
  End Tell Target
End On
```

Play tells Flash to continue playing the current timeline. In this case that timeline is "Navigation". Remember, we stopped playing this timeline at Frame 16 when the **Stop** action was issued from the "Frame Actions & Labels" layer.

Begin Tell Target ("_level0") tells Flash to target the previous timeline... sort of like layers. Review pg.. 185-187 of your Using Flash manual from Macromedia if your lost.

Go to and Play ("Home") tells Flash to go to the frame with the label "Home" in the timeline we identified using Tell Target. We haven't created this label or the timeline it exists in yet. We'll do that in a bit.

Section 1 Layer:

Pay particular attention to the instructions for this layer. From it you can build the other three button layers and their motion guide layers that you will need to complete this tutorial.

1. Create a new layer below the previous and name it "Section 1".
2. Place a Blank Keyframe at Frames 3 and 22.
3. Select Frame 3 and place the Button symbol "Circle 1" (or whatever you've named your first button) in that Keyframe. In this case we will not center the button. It needs to be off to the side. However, with the "Use Center Point" option checked place the symbol instance at X:62.5, Y:0.
4. Open the Instance Properties dialog box, click on the "Definition" tab and ensure that the Behavior is set to

"Button" and Tracking Options is set to *"Track as Menu Item"*. Close the Instance Properties dialog box.

5. Place a Keyframe (F6) at Frames 6, 9, 12, 15, 18 and 21.
6. Select Frame 3. Open the Instance Properties dialog box, click on the "Color Effect" tab, choose the "Alpha" Color effect and give it a value of 0. Close the Instance Properties dialog box by pressing "OK".
7. Select Frame 6. With the "Use Center Point" option checked, Position the symbol at X:0, Y:62.5.
8. Select Frame 9. With the "Use Center Point" option checked, Position the symbol at X:-62.5, Y:0.
9. Select Frame 12. With the "Use Center Point" option checked, Position the symbol at X:0, Y-62.5
10. Select Frame 21. Open the Instance Properties dialog box, click on the "Color Effect" tab, choose the "Alpha" Color effect and give it a value of 0. Close the Instance Properties dialog box by pressing "OK".
11. Tween frames 3 - 15 and Frames 18 - 21. The result for Frames 3 - 15 should be the symbol moving in a clockwise diamond shaped fashion returning to it's point of origin and it should fade up as it travels between the first two Keyframes. For Frames 18 - 21 the symbol should just fade out. This looks good but let's give it a little more polished look by adding a motion guide.
12. Select the layer and add a motion guide by going to the "Insert" menu (Ctrl+click on Mac and PC).
13. On the new layer insert a Blank Keyframe (F7) at Frames 3 and 16.
14. Select Frame 3 and create a circular path. (You can do this by creating a circle and deleting it's fill.)
15. With the "Use Center Point" option checked, center the path and give it a dimension of 125 x 125.
16. Click and drag the playback head over frames 3 - 15. Your button should now follow a circular path. To make the motion path invisible just turn that layers' visibility off.
17. Now, lets set up the button so it will actually navigate! Select Frame 15 of layer "Section 1". Open the Instance Properties dialog box, click on the "Actions" tab and assign the following action. An explanation will follow.

```
On (Release)
  Play
  Begin Tell Target ("_level0")
    Go to and Play ("Nav1")
  End Tell Target
End On
```
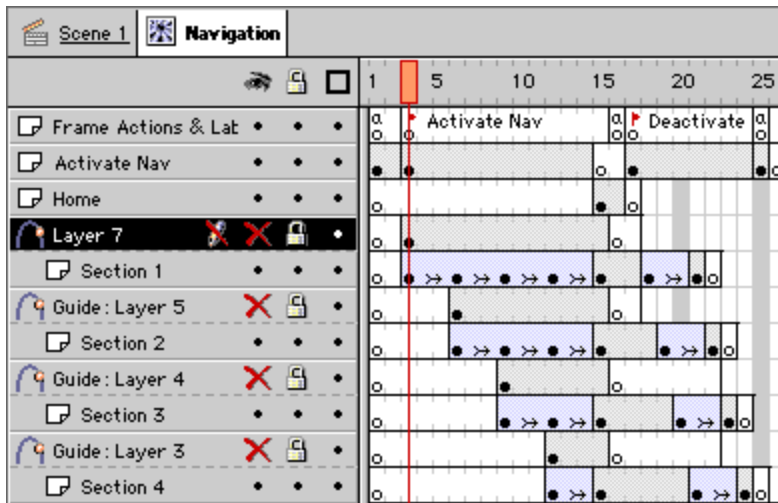
Play tells Flash to continue playing the current timeline. In this case that timeline is "Navigation". Remember, we stopped playing this timeline at Frame 16 when the **Stop** action was issued from the "Frame Actions & Labels" layer.

Begin Tell Target ("_level0") tells Flash to target the previous timeline... sort of like layers. Review pg.. 185-187 of your Using Flash manual from Macromedia if your lost.

Go to and Play ("Nav1") tells Flash to go to the frame with the label "Nav1" in the timeline we identified using Tell Target. We haven't created this label or the timeline it exists in yet. As I said before, we'll get to that in a bit.

You can follow these same steps for the remaining buttons remembering that your other buttons don't need to make the trip all the way around thus you won't have as many Keyframes. Don't forget to apply the same "On (Release)" Action to the **Button** symbol instance in the Frame 15 Keyframe for each button. You'll only need to change the label in the "Go to and Play" command line.

When finished your timeline should look like this...

Notice you can't see that an Action has been assigned to the Button symbols in Frame 15 (Hint: look at the keyframe for layers "Section 1", "Section 2", etc. in Frame 15. There are Actions assigned to **Button** symbol instances... not frames.). Also remember that this timeline stops at Frame 16 because of the assigned *Frame Action* in the layer "Frame Actions & Labels. This allows the user to make a selection from the menu that has just been animated onto the screen. The timeline continues to play when a *Play* action is issued from the Action assigned to a **Button** symbol instance once the user releases the mouse. Once the playback head reaches Frame 25 it encounters a Frame Action that tells Flash to go back to and play Frame 1 where a Stop action is then encountered. This timeline then waits to play again until the playback head is instructed to move to the frame labeled "Activate Nav".

Background:

The background is no biggie. Using the "Background" **Graphic** symbol I just tweened an alpha setting (remember... Instance Properties dialog box...) between Frames 3 - 15 and Frames 17 - 24. Fade in, fade out. Just create a new layer below the previous.

Here's a shot of this layer. Keyframes are at Frames 3, 15, 16, 17 and 24.

Deactivate Menu:

This layer acts as the "net" for catching mouse Roll Over/Out events and acts as the switch to turn the menu off. This "net" is necessary because to my knowledge you can't have buttons overlapping each other. I tried doing this with a solid background underneath everything and an Action using the mouseEvent "Roll Out" attached to the symbol instance. Problem was when I rolled over a navigation button layered on top, Flash understands that as a Roll Out event for the bottom button object even though your still technically within the bounding box of the object. Don't ask me why. Call Macromedia and ask them. Anyway, here's the steps.

1. Create a new layer below the previous and name it "Deactivate Menu".
2. Create a Blank Keyframe(F7) at Frame 3.
3. Select Frame 3 and place the **Graphic** symbol "Mask" in that Keyframe.

4. Create a Keyframe (F6) in Frame 16.
5. Open the Instance Properties dialog box, click the "Definition" tab and change the Behavior from "Graphic" to "Button".
6. With the Instance Properties dialog box still open, click on the "Actions" tab and assign the following action. This Action tells Flash to continue playing this timeline after either one of the two mouse events have occurred and turns off the menu.
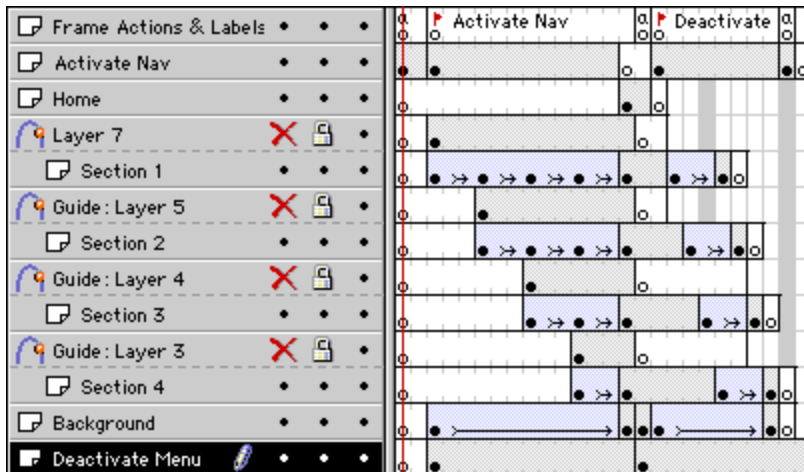
```
On (Roll Over, Roll Out)
  Play
End On
```

7. Close the Instance Properties dialog box by pressing "OK".
8. Select Frame 3
9. Open the Instance Properties dialog box, click the "Definition" tab and change the Behavior from "Graphic" to "Button".
10. With the Instance Properties dialog box still open, click on the "Actions" tab and assign the following action. This Action tells Flash jump to the labeled frame and turn off the menu should the user decide to go elsewhere on the stage.

```
On (Roll Over, Roll Out)
  Go to and Play ("Deactivate Nav")
End On
```
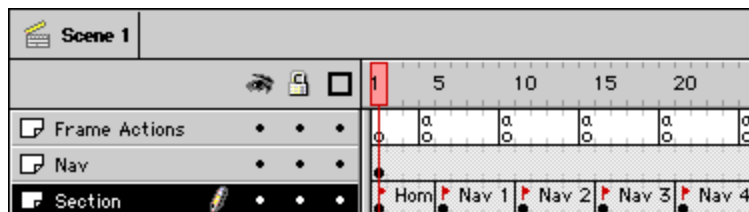
Piecing it All Together:

Well, if you've made it this far you can go the distance and finish this thing. Here's a peek at what the timeline in your "Navigation" **Movie Clip** should look like.

Remember you can place any type of animation you want within the timeline. You could even go so far as to have nested movie clips within this timeline but that's another nightmare.

Now that you've got your navigation menu built, let's quickly build the remaining pieces. Here's a picture of the finished timeline in Scene 1.

1. Go back to Scene 1.
2. Create the three layers you see in the example.
3. In the Frame Actions layer each Blank Keyframe is assigned a Stop Action.
4. The Nav layer holds one item... an instance of your **Movie Clip** symbol "Navigation".
5. The Section layer contains the Keyframes shown with labels attached to each Keyframe. These are the labels referred to in the Actions assigned to your button instances in your Movie Clip symbol "Navigation". Remember?! We pointed to another timeline ("_level0" which in this case is Scene 1) and we told Flash which label to go to in that timeline! Each Keyframe also has a text member that display's the section your in. No need to create symbols for the text unless you plan on doing something fancy to introduce a section.

Closing Thoughts:

I hope this made sense to you. If I've made any omissions, errors or just plain goofed up please let me know. If you've got a better technique I'd like to see it! I've benefited from tearing apart files and tutorials from other folks, I hope I'm returning the favor to the community.

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Last updated 03/17/2000