

# **Flash MX 2004**

## **Animation Lesson**

# Lesson

## Opening a document

To open an existing document:

1. Select **File > Open**.
2. In the Open dialog box, navigate to the file or enter the path to the file in the Go To text box.
3. Click **Open**.

## Opening the library

1. If the Library panel is not open, select **Window > Library**.
2. Double click on the **MantleFull** movie clip. This will access the scene MantleFull (movie clip) and the icon will appear above the timeline.



## Grouping objects

To manipulate elements as a single object, you need to group them. For example, after creating a drawing such as a tree or flower, you might group the elements of the drawing so that you can easily select and move the drawing as a whole.

When you select a group, the Property inspector displays the x and y coordinates of the group and its pixel dimensions.

You can edit groups without ungrouping them. You can also select an individual object in a group for editing, without ungrouping the objects.

To create a group:

1. Select the objects (rock, plate and text layers) in the timeline that you want to group. You can select shapes, other groups, symbols, text, and so on.
2. Select **Modify > Group**, or press Control+G (Windows) or Command+G (Macintosh).

## Frames and keyframes

A keyframe is a frame in which you define a change in an animation or include frame actions to modify a document. Flash can tween, or fill in, the frames between keyframes to produce fluid animations. Because keyframes let you produce animation without drawing each frame, they make creating animation easier. You can change the length of a tweened animation by dragging a keyframe in the Timeline.

The order in which frames and keyframes appear in the Timeline determines the order in which they are displayed in a Flash application. You can arrange keyframes in the Timeline to edit the sequence of events in an animation.


To insert Keyframe in the Timeline:

1. Click on the cell (layer text, frame 2) in the timeline, select **Insert > Timeline > Keyframe**. Repeat this step for the other layers (plate and rock).

## Onion skinning

Normally, Flash displays one frame of the animation sequence at a time on the Stage. To help you position and edit a frame-by-frame animation, you can view two or more frames on the Stage at once. The frame under the playhead appears in full color, while surrounding frames are dimmed, making it appear as if each frame were drawn on a sheet of translucent onion-skin paper and the sheets were stacked on top of each other. Dimmed frames cannot be edited.


To simultaneously see several frames of an animation on the Stage:

1. Click the Onion Skin  button. All frames between the Start Onion Skin and End Onion Skin markers (in the Timeline header) are superimposed as one frame in the Document window.

## Creating frame-by-frame animations

To create a frame-by-frame animation, you define each frame as a keyframe and create a different image for each frame. Each new keyframe initially contains the same contents as the keyframe preceding it, so you can modify the frames in the animation incrementally.



### To create a frame-by-frame animation:

1. Click and drag the selection tool  across all the objects (text, plate and rock). Make sure all items are selected and grouped.
2. Click on the **up arrow** key on your keyboard 5 times.

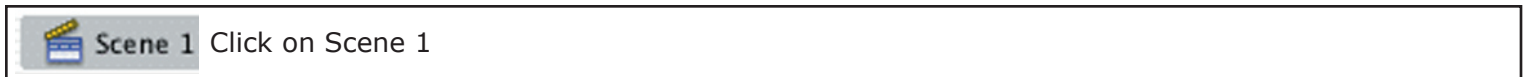
## Copying and pasting frames

If you've created an animated sequence on the Stage and want to reuse it elsewhere in your document, or if you want to manipulate it as an instance, you can select it and save it as a movie clip symbol.

To copy and paste frames:

1. Select  all the cells in the layer (text, plate and rock layer 1) **Edit > Timeline > Copy Frames.**
2. Select  all the cells in the layer (text, plate and rock layer 3) **Edit > Timeline > Paste Frames.**

**Note:** a three frame frame-by-frame animation has been created. To extend this to 12 frames, use the copy/past frames feature above.



## Frames and keyframes

To insert Frames and Keyframes in the Timeline:

1. All layers, except mantle...click in frame 5 and select **Insert > Timeline > Frame.**



2. Select layer Mantle, frame 5 and **Insert > Timeline > Keyframe.**



## Motion tween animation

In motion tweening, you define properties such as position, size, and rotation for an instance, group, or text block at one point in time, and then you change those properties at another point in time. You can also apply a motion tween along a path.

Tweened animation is an effective way to create movement and changes over time while minimizing file size. In tweened animation, Flash stores only the values for the changes between frames.

To create a motion tween:

1. Select the layer Mantle frames 5.
2. On the stage, select the MantleFull movie clip and drag it to the right.
3. Select the layer Mantle frames 1-5.
4. From the properties window, choose **Motion** from the Tween pull down list.




## Test the application


At any point during authoring, you can test how your application plays as a SWF file.

To test the movie:




1. Select **File > Save** to save your application.
2. Save your application and Select **Control > Test Movie**.  
View the animation to verify that it plays as expected.
3. When you finish viewing the application, close the SWF file by clicking its **close box**.





 Insert Keyframe (Folder Information Layer Text, Frame 6)

## Copy / Paste Text


1. In Word, **File > Open** EruptingMagma.doc.
2. Select the water paragraph.
3. **Edit > Copy**.
4. In Flash, select the  **Text** tool.
5. Click and drag a text box the size of the TextBox object.
6. **Edit > Paste**.

 Insert Frame (Folder Information Layer Text, Frame 10)

 New Folder / Name (MantleWater)  
 New Layer / Name (Water)  
 Lock all but the Water folder/layer

 Insert Keyframe (Layer Water, Frame 6)  
 Drag all Layers frames out to 10 except the Mantle Layer  
 Insert Keyframe (Layer MantelSubPlate , Frame 6)  
 Insert Frame (Layer MantelSubPlate , Frame 10)


## Drawing ovals

1. With the  oval tool, create a group of small circles

## Create a movie clip

A movie clip symbol is analogous in many ways to a document within a document. This symbol type has its own Timeline independent of the main Timeline. You can add movie clips within other movie clips and buttons to create nested movie clips. You can also use the Property inspector to assign an instance name to an instance of a movie clip, then reference the instance name in ActionScript.


You'll take vector art on the Stage and turn it into a graphic symbol.

1. In the toolbar, click the  Selection tool.
2. On the Stage, select the water drawings.
3. Select **Modify > Convert to Symbol**.
4. In the Convert to Symbol dialog box, enter "**Water**" as the name and select **Movie Clip** as the behavior.
5. The Registration grid uses a small black square to indicate where, within the symbol bounding box, and click **OK**.
6. The Water on the Stage is now an instance of the Water symbol. The Property inspector shows properties for the graphic movie clip instance.

## Grouping objects


To create a group:

1. Select the objects (water ovals) individually in the timeline that you want to group. You can select shapes, other groups, symbols, text, and so on.
2. Select **Modify > Group**, or press Control+G (Windows) or Command+G (Macintosh).

 Insert Keyframe (Layer Water, Frame 3)


## Onion skinning

To simultaneously see several frames of an animation on the Stage:

1. Click the Onion Skin  button. All frames between the Start Onion Skin and End Onion Skin markers (in the Timeline header) are superimposed as one frame in the Document window.

## Creating frame-by-frame animations


**To create a frame-by-frame animation:**

1. Click and drag the selection tool  across all the objects (Water) in Frame 3. Make sure all items are selected.
2. Move each water oval separately.

 Insert Keyframe (Layer Water, Frame 5)

## Creating frame-by-frame animations

**To create a frame-by-frame animation:**

1. Click and drag the selection tool  across all the objects (Water) in Frame 5. Make sure all items are selected.
2. Move each water oval separately.


 Turn off onion skin

 **Scene 1** Click on Scene 1


 Insert Keyframe (Layer Water, Frame 10)

 Motion Tween (Layer Water, Frames 5-10)

 New Layer / Name (Magma)  
 Lock all other folders/layers

 Insert Keyframe (Folder Information Layer Text, Frame 11)

## Copy / Paste Text

1. In Word, **File > Open** EruptingMagma.doc.
2. Select the magma paragraph.
3. **Edit > Copy.**
4. In Flash, select the  **Text** tool.
5. Click and drag a text box the size of the TextBox object.
6. **Edit > Paste.**



 Insert Frame (Folder Information Layer Text, Frame 15)

 Insert Keyframe (Layer Magma, Frame 11)


## Drawing with the Pencil tool

To draw lines and shapes, you use the Pencil tool, in much the same way that you would use a real pencil to draw. To apply smoothing or straightening to the lines and shapes as you draw, you can select a drawing mode for the Pencil tool.

To draw with the Pencil tool:

1. Select the  Pencil tool.
2. Select **Window > Properties** and select a stroke color, line weight, and style in the Property inspector. See 3. Using the Stroke Color and Fill Color controls in the Property inspector.
4. Select a drawing mode (**Ink mode**) under  Options in the toolbar.
6. Drag the Magma on the Stage with the Pencil tool.

## Create a movie clip

1. In the toolbar, click the  Selection tool.
2. On the Stage, select the Water drawings.
3. Select **Modify > Convert to Symbol.**
4. In the Convert to Symbol dialog box, enter "**Magma**" as the name and select **Movie Clip** as the behavior.
5. The Registration grid uses a small black square to indicate where, within the symbol bounding box, and click **OK.**
6. The Water on the Stage is now an instance of the Water symbol. The Property inspector shows properties for the graphic movie clip instance.

 Insert Keyframe (Layer Magma, Frame 10)

## Tweening shapes


By tweening shapes, you can create an effect similar to morphing, making one shape appear to change into another shape over time. Flash can also tween the location, size, and color of shapes.

Tweening one shape at a time usually yields the best results. If you tween multiple shapes at one time, all the shapes must be on the same layer.

To apply shape tweening to groups, instances, or bitmap images, you must first break these elements apart. See Breaking apart groups and objects. To apply shape tweening to text, you must break the text apart twice to convert the text to objects.

To control more complex or improbable shape changes, you use shape hints, which control how parts of the original shape move into the new shape.

To tween a shape:

1. Click a layer Magma Frame 10 to make it the active layer, and create a **keyframe** where you want the animation to end.
2. In Frame 10, use the  selection tool to modify the shape of the Magma.
3. Select the Magma Frames **1-10** in the Timeline.
4. Select **Window > Properties**, select **Shape** from the Tween pop-up menu.

 **Scene 1** Click on Scene 1

 Insert Keyframe (Layer Magma, Frame 15)

## Creating a motion tween

To create a motion tween animation:

1. Select the **Magma** object with the  selection tool and increase the size a little.
2. Select the Frames **11-15** in the Layer Magma.
3. Select **Window > Properties**, select **Motion** from the Tween pop-up menu.