

COMSC-032

**Web Site Development-
Flash**



Part-Time Instructor: Joenil Mistal

Chapter 8



8

Working with Symbols and Instances

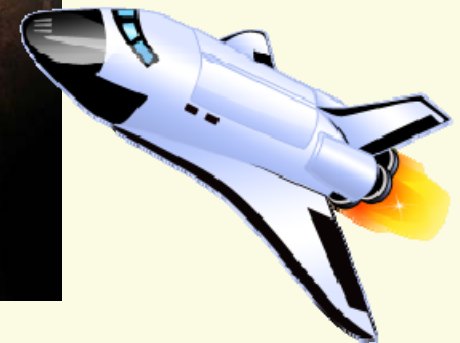
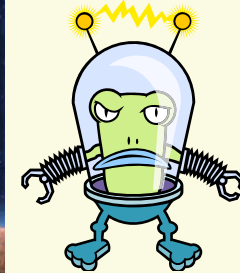
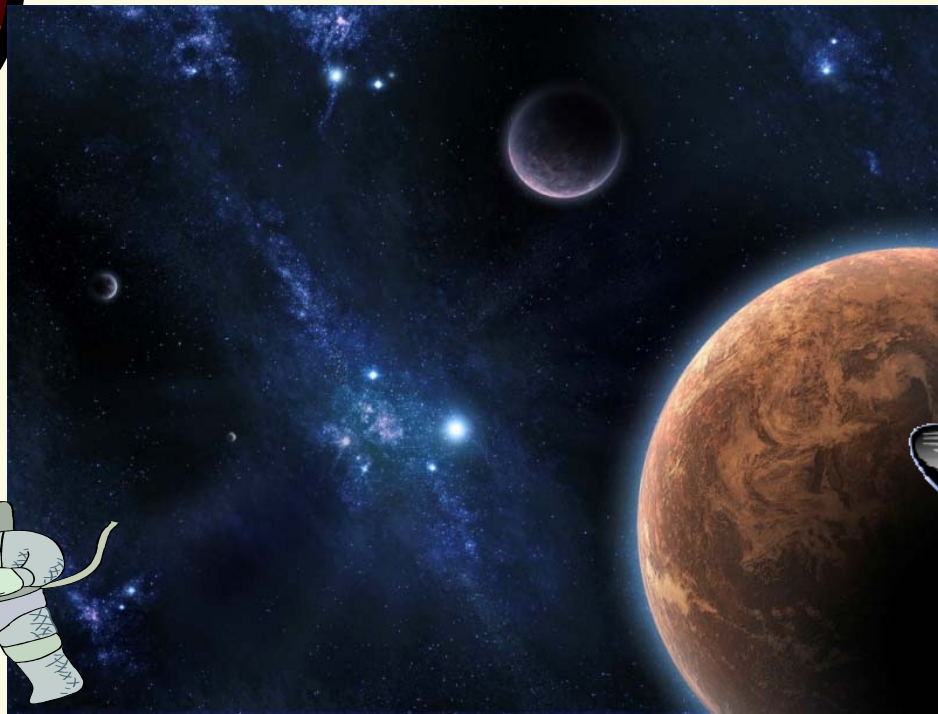
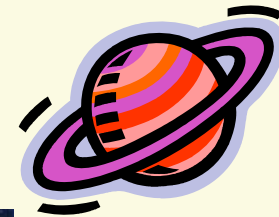
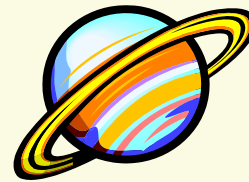
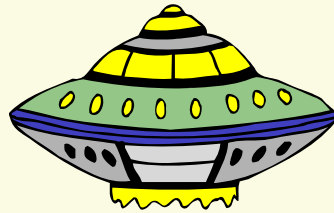
Symbols are the building blocks of a Flash project. This chapter shows you how to create symbols, store them for reuse in the Library, and create instances of those symbols on the Stage to create a Flash movie.

Chapter 8 Topics: Working with Symbols and Instances

- Understanding Symbols and Instances
- Types of Symbols
- Create a Graphic Symbol
- Add an Instance of a Symbol to the Stage
- Modify Instances
- Swap Symbols
- Create a Button Symbol
- Edit the States of a Button
- Create a Movie Clip Symbol
- Preview a Symbol
- Apply Filters to an Instance
- Apply a Blend Mode to an Instance
- Understanding the Different Blend Modes
- Rotate and Translate MovieClip Instances with 3-D Tools



Understanding Symbols and Instances



Understanding Symbols and Instances

(pg 152)

- A symbol is basically the blueprint of an object in Flash. These blueprints are stored in the Library.
- When you drag a symbol from the Library to the Stage, you create an instance, which is the realization of that blueprint: An object is created

Understanding Symbols and Instances

(pg 152)

Symbols

- A symbol can be a graphic, a movie clip, a button, a video, or a sound.
- Each of these unique objects is used for different purposes.
- You can create these symbols so that they can be used in your Flash movie as instances

Understanding Symbols and Instances

(pg 152)

Instances

- An instance is the realization of a symbol.
- You can create many instances of the same symbol, each with its own set of properties.
- This way, you can have several instances of the same symbol, which can be different colors, different sizes, or instances that perform different actions, all while coming from the same blueprint.

Understanding Symbols and Instances (pg 152)

Nesting

- Placing one symbol inside another is called nesting.
- A good way of thinking about nesting is to think of a set of Russian dolls.
- You can have symbols inside of symbols inside symbols, much like how the dolls are inside of each other.
- However, you can have more than one symbol at any level of nesting.

Type of Symbols (pg 153)

- You can create symbols in Flash to make reusable graphics and animations.
- Flash has three main types of symbols: graphic, movie clips, and buttons.

**Graphic
Symbol**

**Movie
Clips**

**Button
Symbols**

Type of Symbols (pg 153)

Graphic Symbols

- Graphic objects, such as those you create in Flash, with the drawing tools or those images you import, can be reused for **creating animation** in the Flash Timeline.



Types of Symbols (pg 153)

Movie Clips

- Movie clip symbols are simply mini-movies that reside inside the main Flash movie file.



Types of Symbols (pg 153)

Button Symbols

- You can save **interactive** buttons, also called rollover buttons, as symbols and reuse them by associating different actions to the same button.



Types of Symbols (pg 153)

Other Symbols

- You can also create symbols for sound, video, and fonts.
- These symbols are used differently than graphics, buttons, and movie clips.

Using the Flash Library

- A Flash project can contain hundreds of graphics, sounds, interactive buttons, video, and movie clips.
- The **Flash Library** can help you organize these elements
- For example, you can store related symbols in the same folder, create new folders, or delete folders and symbols you no longer need.

Using the Flash Library

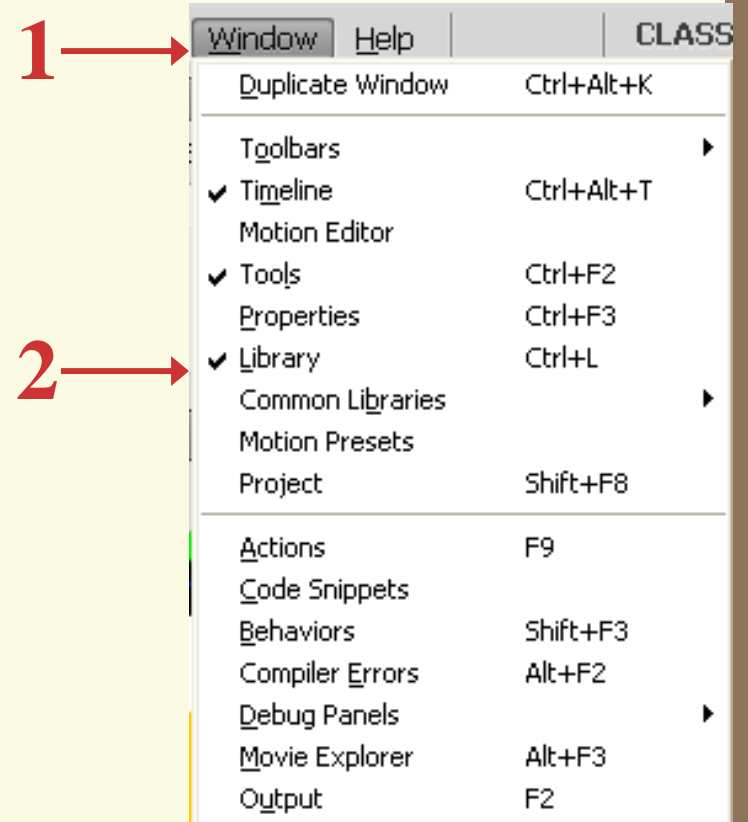
- Every time you import a graphic image into a Flash file, convert a graphic element into a symbol, or add a new sound to a frame, Flash adds it to the file's **Flash Library** .
- In effect, the Library is a compendium of your movie's contents.
- You can use the **Library panel** to view and manage your movie elements.

Using the Flash Library



Open the Library Panel

1. Click **Window**.
2. Click **Library**



Using the Flash Library



Can I use symbols from another movie's Library?

Yes can easily insert symbols into your current project from another file's library.

Click **File, Import** and then **Open External Library**.

The Open as Library dialog box appears. Click the file name, and then click Open.

The **Library panel** opens, listening the other file's symbols. Click and drag the symbol you want to use onto the Stage.

Using the Flash Library



How do I place a symbol from the Library onto the Stage?

From the Library panel, locate the symbol you want to use, and then **click and drag** it from the Library and drop into onto the Stage.

The symbol is added to the Stage. You can then move or edit the symbol as needed, or use it in animation effects.

Using the Flash Library

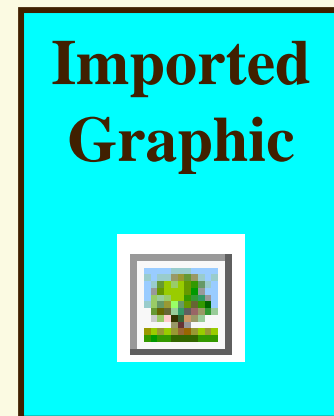
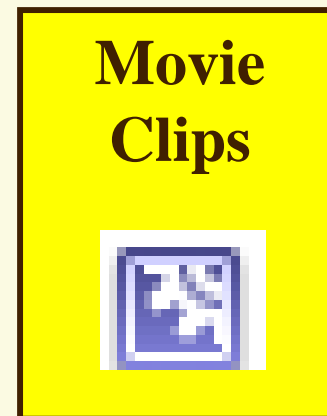
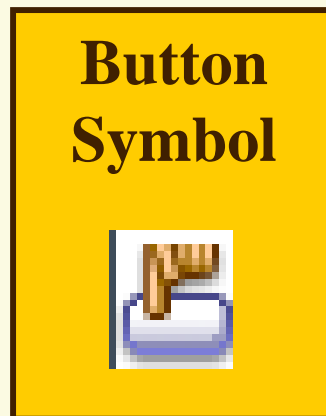
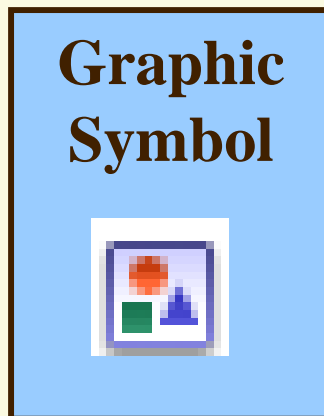
(continuation)

- To organize all of your symbols, you can store them in **folders**.
- The Library folders display like any other folder on your computer system.
- Open the folder to view its contents or hide the contents and view only the folder name.

Using the Flash Library

(continuation)

- When you open a folder, you can see every symbol it contains.
- The icons next to the symbol name in the **Library panel** indicate the symbol type.

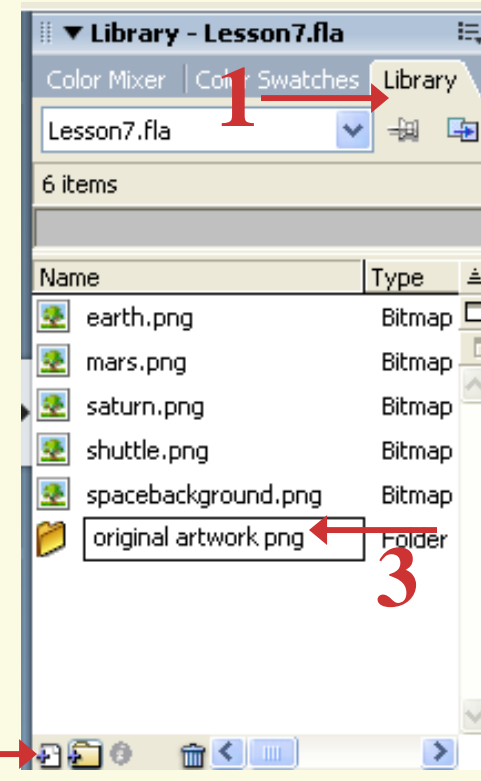


Using the Flash Library

(continuation)

Create a New Folder

1. Open the **Library Panel**
2. Click the **New Folder** button at the bottom of the Library panel.
3. Type a **name** for the folder.
4. Press **<Enter>**



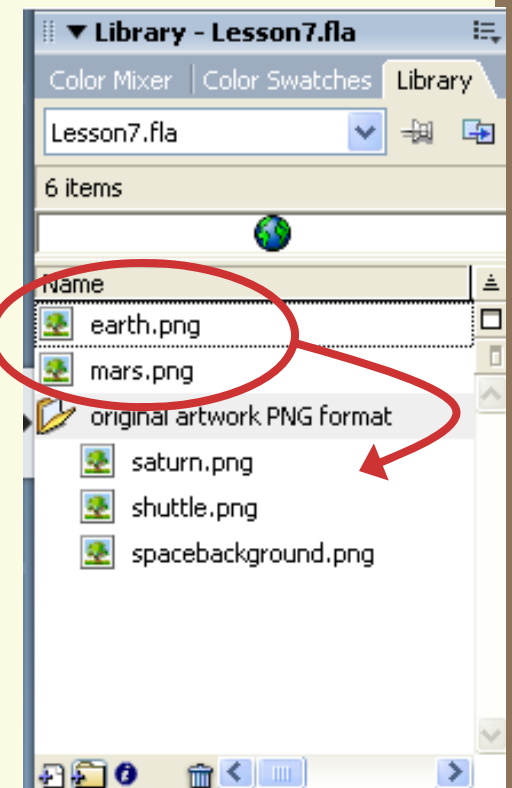
Using the Flash Library

(continuation)



Create a New Folder

5. **Click and drag** the item you want to place in the new folder.
6. Release the mouse button.



Using the Flash Library

(continuation)



How do I rename a folder?

Double-click the folder name in the Library panel to highlight the folder name.

Type a **new name**, press <Enter> and Flash applies the new name.

You can use this same technique to rename symbols in the Library window

Using the Flash Library

(continuation)



Can I delete a folder I no longer need?

Yes, but make sure it does not contain any symbols you want to keep or are currently using in the file.

After you delete a folder, Flash deletes its contents, along with any instances you use in your animation.

To delete a folder, click it, and then click the Delete icon at the bottom of the Library panel. Flash warns you that you are about to permanently delete the folder and its contents. Click Yes and the folder is removed.

Create a Symbol (pg 153)

- You can easily turn any object you draw on the Flash stage, into a **symbol** you can reuse throughout your project.
- You can also convert any existing drawing or graphical element into a symbol.

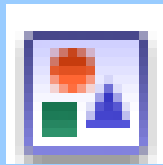
Create a Symbol (pg 153)

- When you save an item as a symbol, Flash stores it in the file's **Library**.
- When you reuse the symbol, you are using an instant or copy the original symbol.

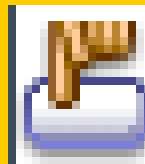
Create a Symbol (pg 153)

- There are three types of behaviors you can assign to a symbol: graphic, movie clip, or button.
- The behavior you assign depends on what you want to do with the symbol.

**Graphic
Symbol**



**Button
Symbol**



**Movie
Clips**



Create a Symbol a Graphic Symbol

(pg 154)


- You can create graphic symbols a couple different ways: directly on the Stage, and through the Library.
- If you create a graphic symbol and decide later that you need another type, you can change it in the Library to the appropriate symbol type.

Create a Symbol a Graphic Symbol

(pg 154)



Create a Graphic Symbol

1. Click and drag with the **Selection tool**  and select the artwork from which you want to create a symbol
2. Right-click on your selected elements and click **Convert to Symbol** from the menu.
3. Type a name for your **Symbol**

Create a Symbol a Graphic Symbol

(pg 154)



Create a Graphic Symbol

4. Choose **Graphic** from the Type drop-down menu
5. Click **OK**
6. Repeat steps 1-5 for the other artwork objects to convert

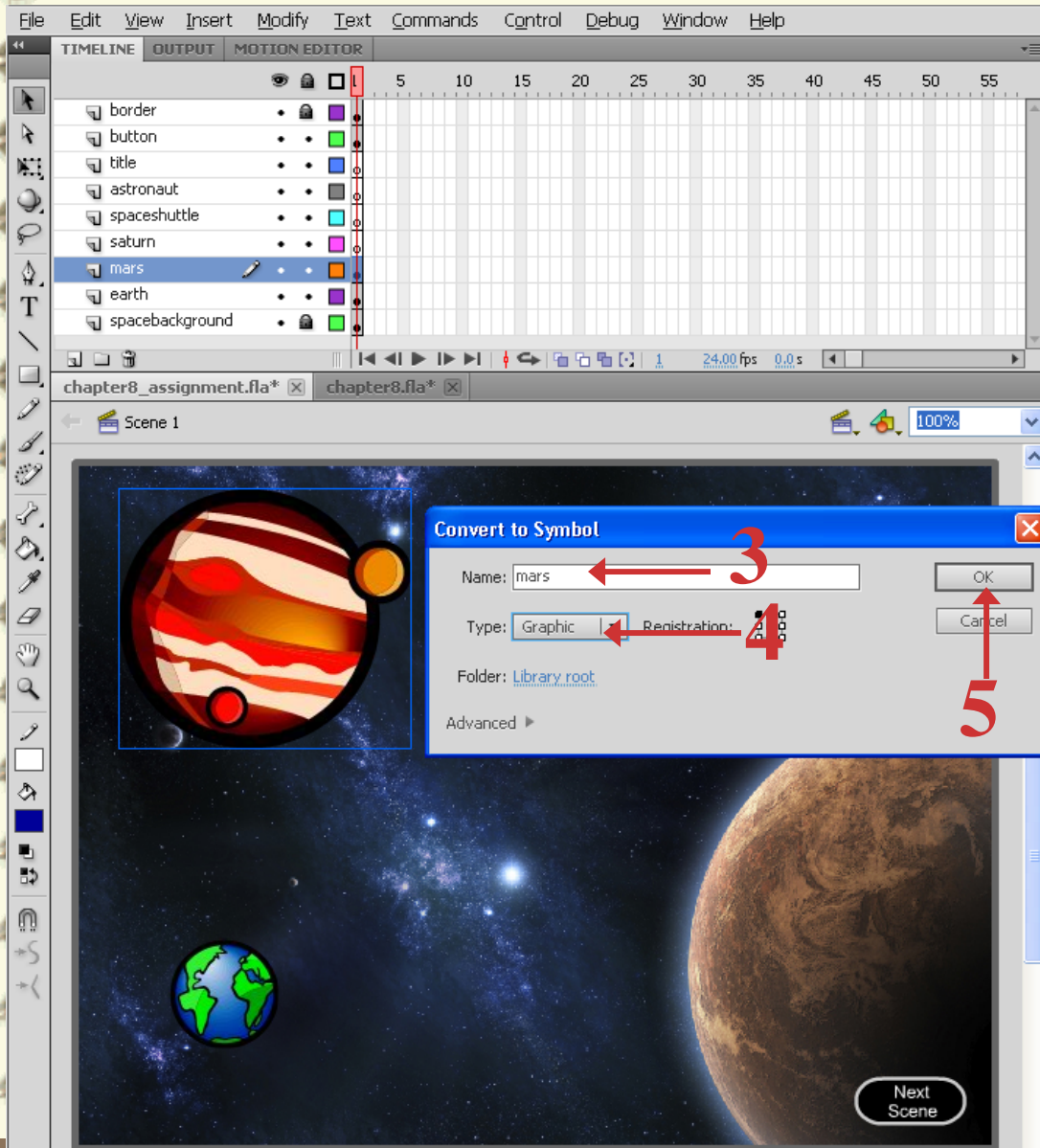
demo

Create a Graphic Symbol (pg 154)

The screenshot displays the Adobe Flash CS5 interface. At the top, the menu bar includes File, Edit, View, Insert, Modify, Text, Commands, Control, Debug, Window, and Help. Below the menu bar are three panels: TIMELINE, OUTPUT, and MOTION EDITOR. The TIMELINE panel shows a timeline from 0 to 55 seconds. The OUTPUT panel lists several elements: border, button, title, astronaut, spaceshuttle, saturn, mars, earth, and spacebackground. The 'mars' element is selected. The main workspace shows a scene with a large planet (Jupiter) and a smaller planet (Earth). A red arrow labeled '1' points to the planet graphic. A context menu is open over the planet graphic, with a red arrow labeled '2' pointing to the 'Convert to Symbol...' option. The context menu includes options such as Create Motion Tween, Cut, Copy, Paste, Copy Motion, Copy Motion as ActionScript 3.0..., Paste Motion, Paste Motion Special..., Select All, Deselect All, Free Transform, Arrange, Break Apart, Distribute to Layers, Edit with Adobe Photoshop CS5, Edit with..., Swap Bitmap..., Motion Path, Convert to Symbol..., Convert to Bitmap, and Show in Library. A 'Next Scene' button is visible in the bottom right corner of the workspace.

demo

Create a Graphic Symbol (pg 154)



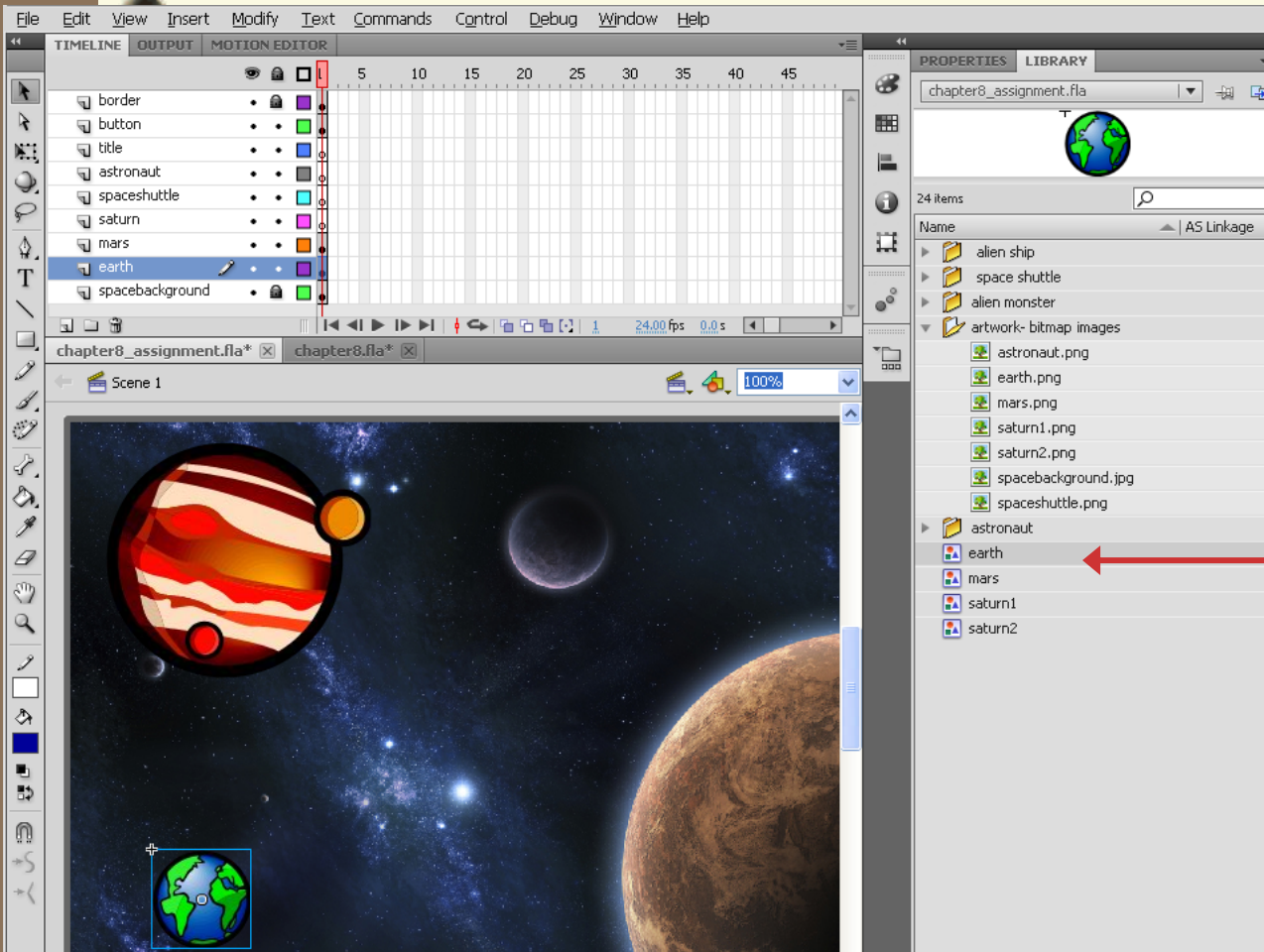
You can click the icon next to Registration to select your symbol's registration point. Each of the little squares is clickable

You can place your symbol in a subfolder of your Library by clicking the blue text next to Folder


You can see the advanced symbol creation options by clicking the Advanced option.

demo

Create a Graphic Symbol (pg 155)



Your symbol appears in the Library and is ready to be used in your project


Graphic symbols are denoted by the Graphic symbol icon 

Create a Graphic Symbol

(pg 155)



How can I create a symbol and then add graphics to it?

You can add an empty symbol to the Library by clicking the **New Symbol button**  at the bottom of the Library panel.

Then choose your symbol type, and click **OK**. Flash automatically resets the Stage for drawing that symbol.

Click **Scene 1** at the top of the Stage to return to the main Timeline.

You can also create a new symbol by clicking **Insert** and then **New Symbol**.

Create a Graphic Symbol (pg 155)



Can I create a duplicate symbol?

Yes. Right-click on any symbol in the Library and click **Duplicate** from the menu that appears.

Flash prompts you as though you were creating a new symbol, allowing you to rename, choose a new symbol type, and change other options available in Duplicate Symbol dialog box.

Add an Instance of a Symbol to the Stage (pg 156)

- To **reuse** a symbol in your Flash project, you can place an instance of it on the Stage.
- An **instance** is a copy of the original symbol.
- The copy **references** the original instead of redrawing the object completely.
- This method of referencing a vector object for reuse is much more efficient than copying an object over and over again in a file.

Add an Instance of a Symbol to the Stage (pg 156)

- Ordinarily, when copying an object, you are copying the entire set of instructions that tells the computer how to draw the object.
- With the Flash method, the symbol instance merely **points** to the original symbol without needing a complete set of instruction for recreating the object.
- This greatly decreases the movie's file size.

Add an Instance of a Symbol to the Stage

(pg 156)

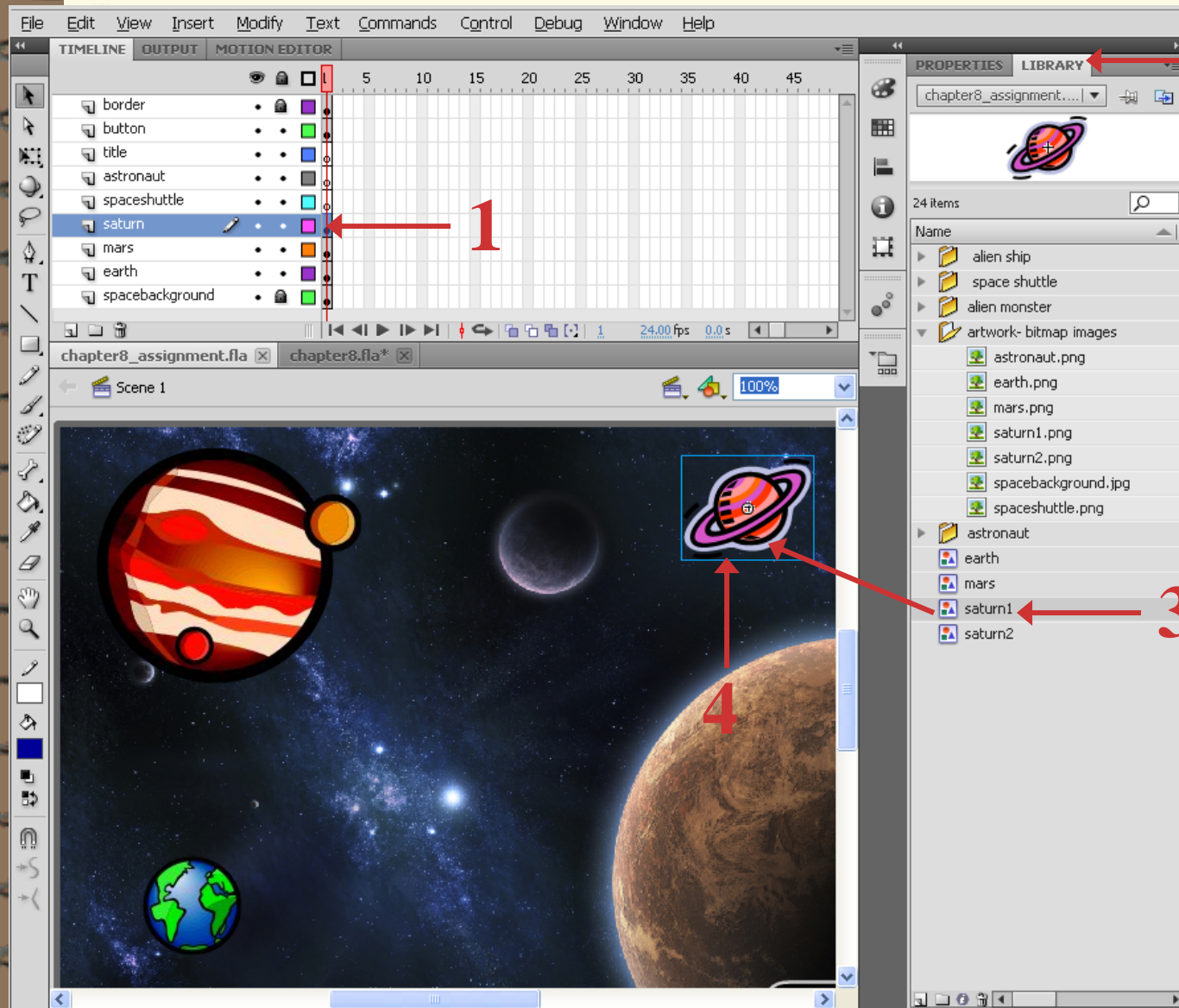


Insert an Instance

1. Click on the **keyframe** where you want to insert your instance.
2. Open the **Library panel**
3. Click and drag a **symbol** from the Library over the Stage.
4. Release the mouse button where you want your instance to appear on the Stage

demo

Insert an Instance (pg 156)



Note: Flash does not let you place an instance in a regular frame. You can only place instances in a keyframe in the Flash Timeline. Regular frames are reserved for tweened animation and the passage of time

Insert an Instance (pg 156)



Flash does not let me place an instance in a regular frame. Why ?

You can only place instance in a **keyframe** in the Flash Timeline.

You are not allowed to place instances in regular frames.

Modify an Instances (pg 157)

- After you place an instance of a symbol on the Stage, you can **change its properties** without affecting the original symbol.
- For example, you can make your instance transparent, apply color effects, or scale and transform it.


Modify an Instances (pg 157)

- You can change the object's behavior by turning a **graphic symbol** into a movie clip or into a button.
- You can also experiment by fine-tuning an instance's color effects.
- So, if you have a graphic symbol but want to use a blend mode, you can change the Instance to a movie clip in the Properties inspector.

Modify an Instances (pg 157)



Modify an instance

1. Click the **Selection tool** 
2. Select the **symbol**
3. Open the **Properties inspector**.
4. Click the Style drop-down list and select **Alpha**
5. Drag the Alpha **slider** to affect your instance's transparency.
6. Repeat steps 1-5 for other graphic symbols.



Modify an Instances (pg 157)

The screenshot shows the Adobe Flash CS4 interface. The timeline at the top shows a sequence of frames with a playhead at frame 5. The scene view displays a space-themed background with a large planet, a ringed planet, and a smaller planet. A red arrow labeled '1' points to the instance of the planet in the scene. A red arrow labeled '2' points to the instance of the planet in the timeline. A red arrow labeled '3' points to the 'Alpha' option in the 'COLOR EFFECT' panel of the Properties window.

File Edit View Insert Modify Text Commands Control Debug Window Help

TIMELINE OUTPUT COMPILER ERRORS MOTION EDITOR

border mars saturn earth spacebackground

chapter8_assignment fla* chapter8_output fla

Scene 1

PROPERTIES LIBRARY SCENE

Graphic

Instance of: earth Swap...

POSITION AND SIZE

X: 70.50 Y: 340.45

W: 75.00 H: 75.00

COLOR EFFECT

Style: Alpha

Alpha: 53 %

LOOPING

Options: Alpha

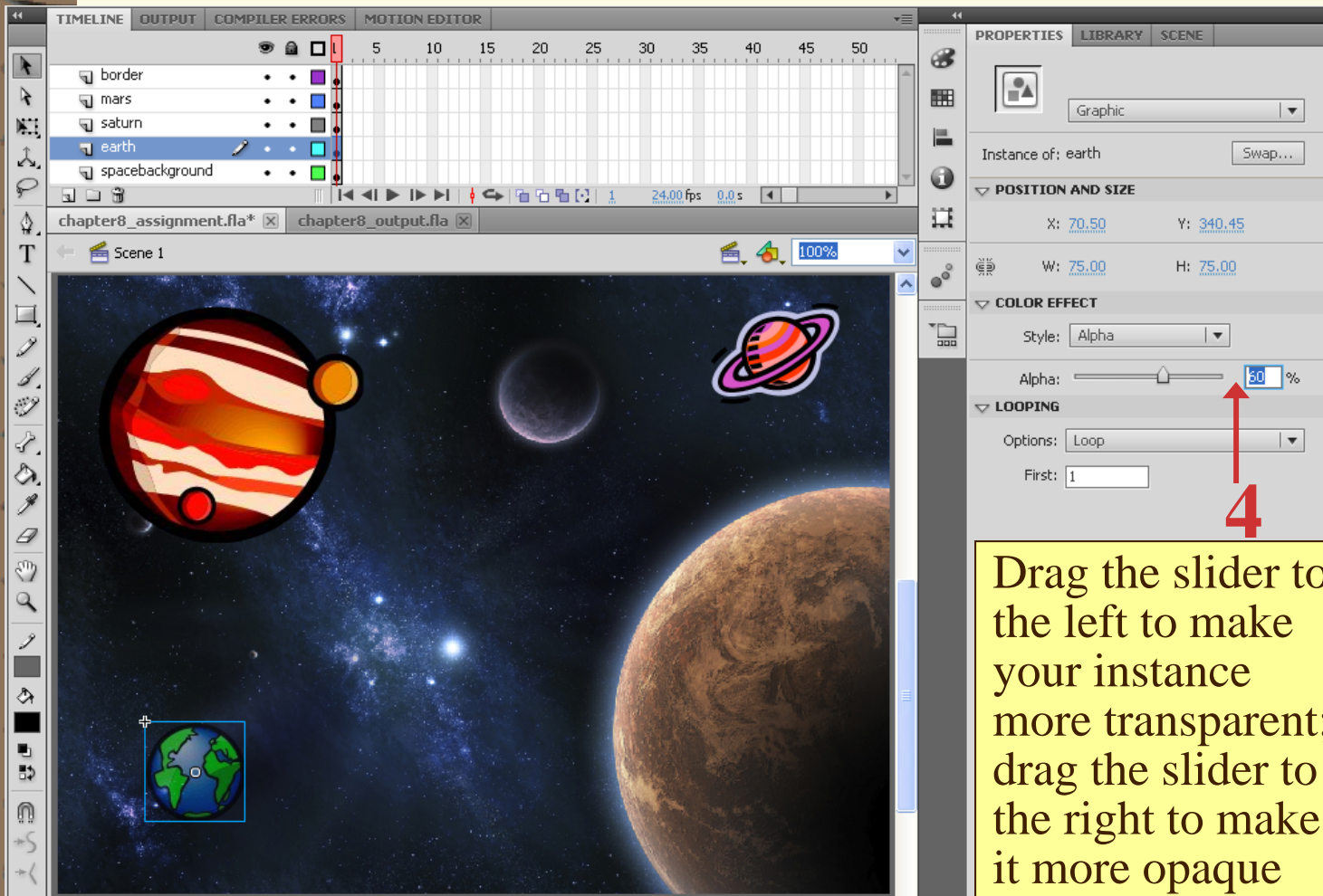
First: 1



Modify an Instances

(pg 157)

Note: To modify multiple instances at the same time, select the objects by holding down the shift key and clicking with the Selection tool. Then you can adjust properties in the Properties inspector for all the selected objects.



Drag the slider to the left to make your instance more transparent; drag the slider to the right to make it more opaque

Modify an Instances (pg 157)



How do I make the instance transparent?

To make an instance appear transparent changing its **Alpha setting**. Follow steps 1 to 3 in this section- “Modify an Instance”.

Open the Advanced Effect dialog box and click and drag the **Alpha slider** to the transparency level you want to apply.

Click OK to apply the effect.

Modify an Instances (pg 157)



Can I name an instance?

You can name a movie clip or button instance and use the name in your action variables.

Click inside the Instance Name text box in the Property inspector panel and type a name.

This only works for movie clip or button instances.

You cannot name generic instances.

Swap Symbols (pg 158)

- You can change what **symbol** your instances refer to.
- Many times, you will want to create placeholder buttons and simple graphics for your project in order to get things moving.
- Then you can simply swap them for symbols you create later with your polished design.

Swap Symbols (pg 158)



Swap symbols

1. Click on an instance with the **Selection tool** to select it.
2. Open the **Properties inspector**
3. Click **Swap**
4. Click the **symbol** you want to swap for the current symbol
5. Click **OK**



Swap Symbols (pg 158)

1

2

3

4

5

Instance of: saturn1

Swap...

POSITION AND SIZE

X: 470.30 Y: 35.85

W: 100.00 H: 79.00

COLOR EFFECT

Style: None

LOOPING

Options: Loop

First: 1

Swap Symbol

- animation- alien monster
- animation- alien ship
- animation- astronaut
- animation- space shuttle
- artwork- original
- earth
- mars
- saturn1
- saturn2

OK

Cancel

A preview of the selected symbol appears.

You can duplicate the selected symbol by clicking the Duplicate button



Swap Symbols (pg 159)

The screenshot displays the Adobe Animate workspace. At the top, the menu bar includes File, Edit, View, Insert, Modify, Text, Commands, Control, Debug, Window, and Help. Below the menu is the Timeline panel, which shows a sequence of frames from 5 to 50. A red vertical line indicates the current frame. The main workspace shows a scene with a space background, a large planet with red and white stripes, a smaller planet with rings, and a large brown planet. The Properties panel on the right is open to the 'Graphic' tab, showing the instance name 'saturn2' and a 'Swap...' button. The 'POSITION AND SIZE' section shows X: 470.30, Y: 35.85, W: 112.00, and H: 80.00. The 'COLOR EFFECT' section shows the Style set to 'Alpha' and the Alpha value at 60%. The 'LOOPING' section shows the Options set to 'Loop' and the First frame set to 1.

The symbol is swapped.

Swap Symbols (pg 159)



Will I lose my color effects and filters if I swap symbol?

No. Changing your instance to a new symbol only changes the Library item that your instance refers to.

Any modifications you make to the properties of your **instance remain**.

This includes blending, color effects, filters, position, and size.

Swap Symbols (pg 159)



Sometimes the Swap button is grayed out. Sometimes it isn't even there. Why?

The Swap button may be unavailable for a couple of reasons. You cannot swap shapes.

Look at the top of the Properties inspector to make sure of the type of object you have selected.

You also cannot swap multiple symbols at once.

A quick way to check to see if you have multiple symbols selected is to look at the top of the Properties inspector. If you have more than one symbol selected, it will say "Instance of:---"

Edit Symbols

- You can **edit symbols** you have stored in the Library.
- For example, you might need to change a symbol slightly, such as adjusting a line or shape
- You can make changes to the original symbol and Flash automatically updates all instances of it in your movie. This can save you considerable time and efforts.

Edit Symbols

- You can edit symbols in **Symbol Edit mode** or in a new window.
- When in Symbol Edit mode, Flash locks the other objects on the Stage to prevent accidentally changes.
- When you edit in a new window, only the symbol you want to edit appears.

Edit Symbols



Edit a symbol in symbol edit mode

1. Double click the **symbol** you want to edit
2. Edit the **symbol** as needed
3. Click the scene name to return to **Movie Edit mode.**

demo

Edit a symbol in symbol edit mode

The screenshot displays the Adobe Animate software interface in symbol edit mode. The main workspace shows a scene with a space background, a planet, and a moon. A red and white striped planet is selected, with a blue bounding box around it. The timeline at the top shows a single frame on Layer 1. The Properties panel on the right shows the instance name 'mars.png' and its dimensions (W: 200.00, H: 178.00). Three red arrows and numbers indicate the steps: 1 points to the planet, 2 points to the Properties panel, and 3 points to the scene name 'mars' in the library panel.

1

2

3

Scene 1 mars

chapter8_assignment fla chapter8 fla

24.00 fps 0.0 s

100%

W: 200.00 H: 178.00

Instance of: mars.png


POSITION AND SIZE

X: 0.00 Y: 0.00

Edit Symbols



Edit a Symbol in a New Window

1. Click **Edit Symbols** button The icon for the 'Edit Symbols' button, showing a green square, a blue triangle, and a red circle.
2. Click the **symbol** you want to edit.
3. Edit the **Symbol** as needed
4. Click the scene name to return to **Movie Edit mode.**



Edit a Symbol in a New Window

The screenshot shows the software interface with the following elements and annotations:

- Timeline:** Shows a layer named 'Layer 1' with a red arrow labeled '4' pointing to the 'earth' symbol on the stage.
- Properties Panel:** Shows the 'LIBRARY' tab with a list of symbols. A red arrow labeled '2' points to the 'earth' symbol, which is highlighted with a blue checkmark.
- Stage:** Shows a blue and green globe symbol. A red arrow labeled '3' points to the globe, and another red arrow labeled '1' points to the 'Edit in Place' icon in the timeline.

Edit Symbols




How do remove a symbol no longer want?

First, make sure you do not use the symbol anywhere in your Flash movie.

When you delete a symbol, Flash removes any instances of the symbol.

Open the Library panel and select the symbol you want to remove.

Click  . Note that after you delete a symbol, you can not undo the action. To continue, click Delete; Flash permanently removes the symbol from the file's Library.

Edit Symbols



Flash does not let me edit my symbol. Why not?

Depending on the complexity of the symbol, you may need to first apply the **Break Apart** or **Ungroup** command.

The Break Apart command breaks the symbol down into its most basic construction- lines and fills.

You can then edit a single line or fill.

The Ungroup command ungroups a grouped object. You can find the Break Apart and Ungroup commands on the Modify menu.


Create a Button Symbol (pg 160)

- You can create buttons in Flash to add interactivity to your projects.
- Your buttons can trigger events and ActionScript commands
- Button symbols also have a special Timeline that contains specific frames for the states of the button: Up, Over, Down and Hit.

Create a Button Symbol (pg 160)



Create a Button Symbol

1. Click and drag with the **Selection tool**  and select the artwork from which you want to create a button.
2. Click **Modify**
3. Click **Convert to Symbol**
4. Type a **name** of your button
5. Click the Type-drop-down list and choose **Button**

Create a Button Symbol (pg 160)



Create a Button Symbol

7. Click **Control**
8. Click **Enable Simple Buttons**

demo

Create a Button Symbol (pg 160)

The screenshot shows the software interface with the following elements:

- Menu:** File, Edit, View, Insert, **Modify**, Command, Control, Debug, Window, Help. A red arrow labeled '2' points to the 'Modify' menu.
- Timeline:** A timeline with markers at 20, 25, 30, 35, 40, 45, and 50. A red arrow labeled '3' points to the 'Convert to Symbol... F8' option in the 'Modify' menu.
- Layers:** A list of layers including 'border', 'mars', 'saturn', 'earth', 'button', and 'spacebackground'. The 'button' layer is selected.
- Convert to Symbol Dialog:** A dialog box with the following fields:
 - Name: buttonScene1
 - Type: Button (dropdown menu)
 - Registration: 3x3 grid icon
 - Folder: Button (dropdown menu)
 - Buttons: OK, Cancel
- Scene Preview:** A preview window showing a space scene with the text 'Space the Last Frontier' and a 'Next Scene' button. A red arrow labeled '1' points to the 'Next Scene' button.

demo

Create a Button Symbol (pg 160)

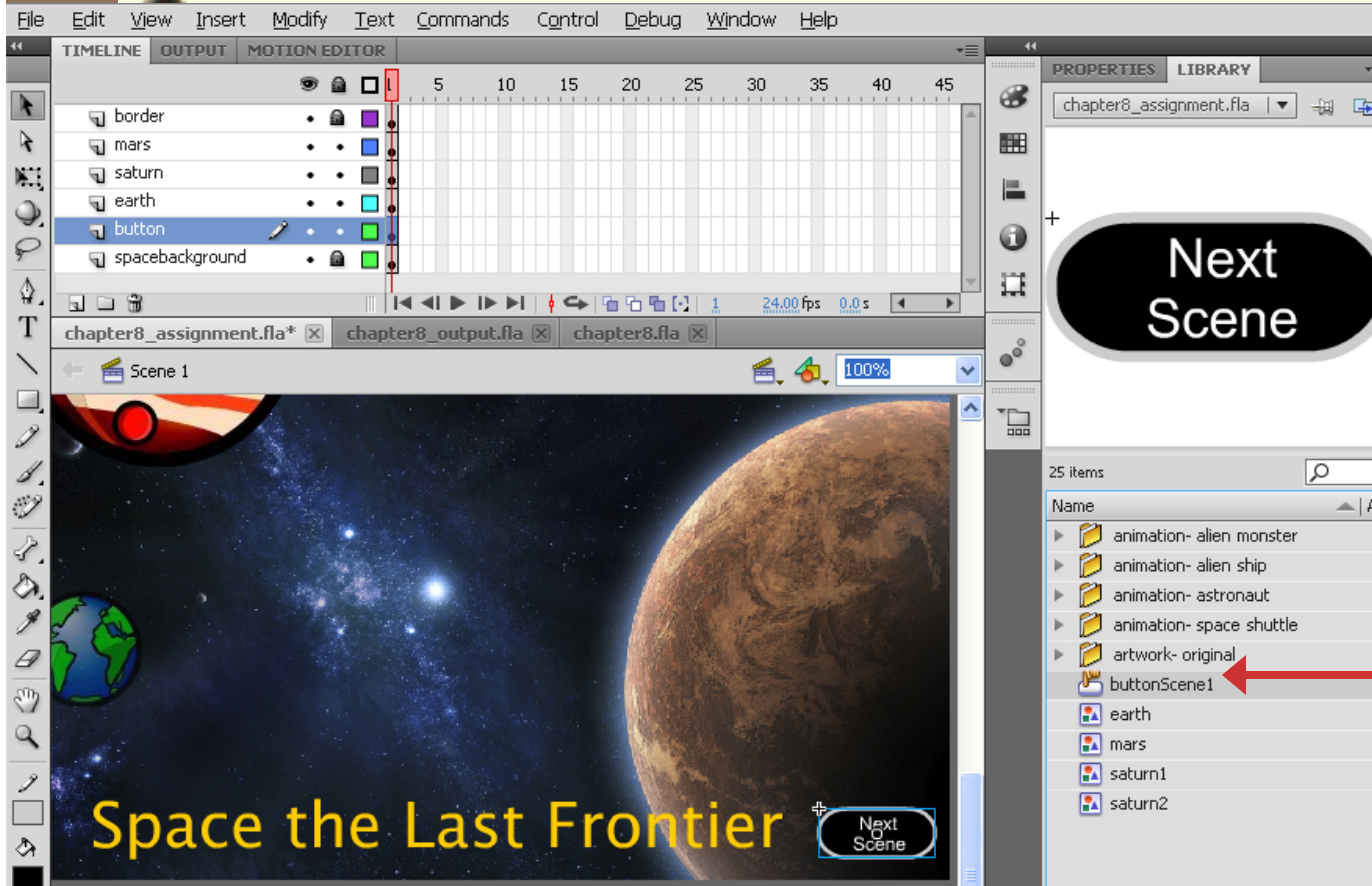
The screenshot displays the software interface with a 'Convert to Symbol' dialog box. The dialog box has the following fields and options:


- Name:** A text field containing 'buttonScene1', with a red arrow labeled '4' pointing to it.
- Type:** A dropdown menu set to 'Button'.
- Folder:** A dropdown menu with 'Button' selected (indicated by a checkmark), with a red arrow labeled '5' pointing to it. Other options are 'Movie Clip' and 'Graphic'.
- Buttons:** 'OK' and 'Cancel' buttons, with a red arrow labeled '6' pointing to the 'OK' button.

The background scene shows a space-themed environment with the text 'Space the Last Frontier' and a 'Next Scene' button. The software interface includes a menu bar (File, Edit, View, Insert, Modify, Text, Commands, Control, Debug, Window, Help) and a timeline at the top.

demo

Create a Button Symbol (pg 160)



Button symbols are denoted by the Button symbol 

Your symbol appears in the Library and is ready to be used in your project

Create a Button Symbol (pg 160)



**I can't move or edit my buttons, anymore.
Why?**

With Enable Simple Buttons turned on, your button is not selectable. Turn off this feature by selecting the **Control** and then **Enable Simple Buttons**, or you can press **<Ctrl><Alt>** a second time.

Edit the States of a Button (pg 162)

- You can give your button a **rollover effect** and a clicked effect by editing the frames of your button symbol.
- Most of the time, you will want to have at least a rollover state so your users know your button is clickable
- You also want a **Hit state** so Flash knows when the mouse is within the bounds of your button.

Edit the States of a Button (pg 162)



Edit the States of a Button

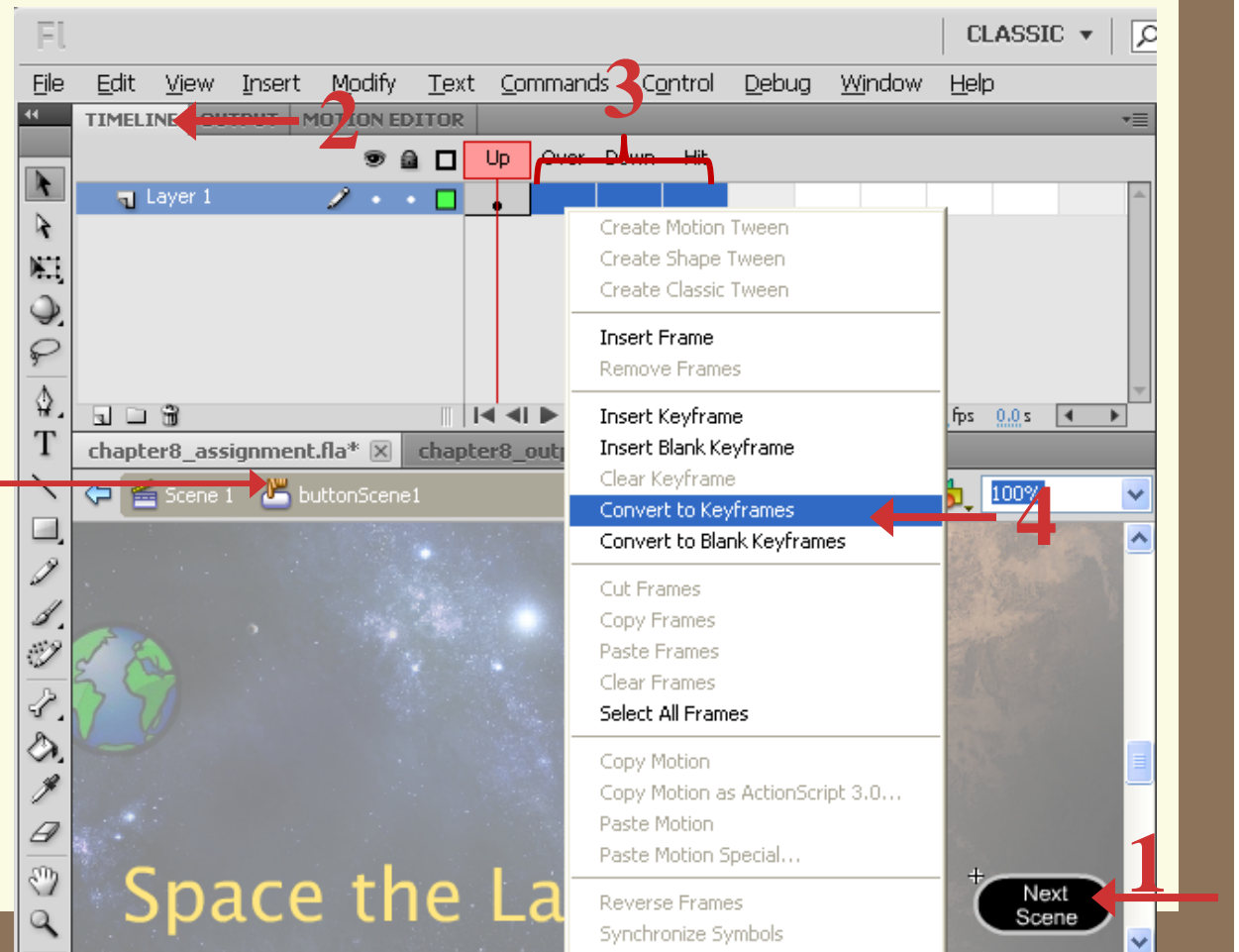
1. **Double-click** your instance to edit it in place.
2. Open the **Timeline** panel
3. Select all frames of the button Timeline
4. Right-click on the selected frames and click **Convert to Keyframes**

Edit the States of a Button (pg 162)



Edit the States of a Button

This area indicates that you are editing the button's Timeline



Edit the States of a Button (pg 162)



Edit the States of a Button

5. Click the **Over frame** in the Timeline.
6. Edit your button's elements with the Flash drawing tools

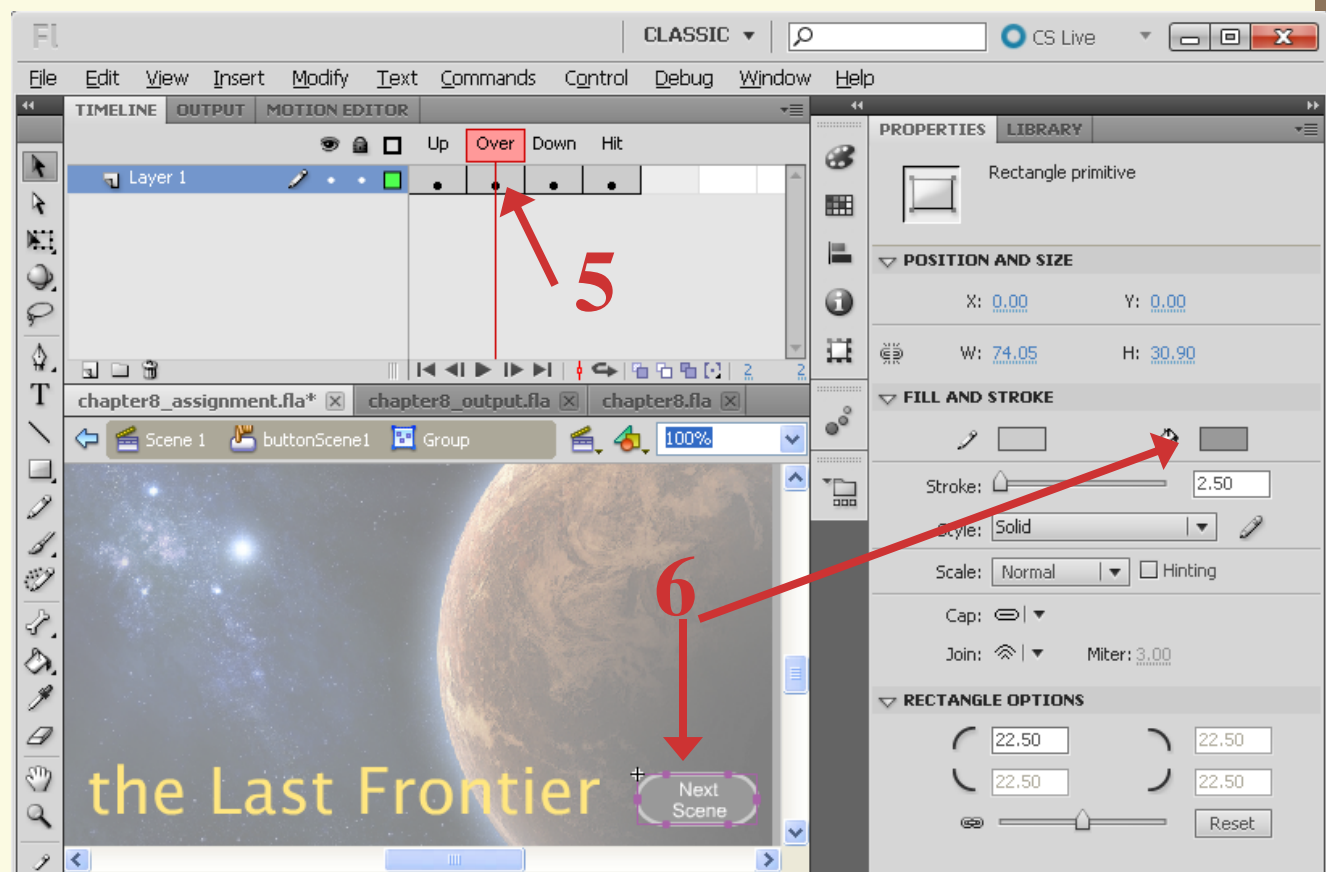
Edit the States of a Button (pg 162)



Edit the States of a Button

The selected frames are now keyframes.

This frame called **Over** becomes what is shown when a user moves the mouse pointer over the button



Edit the States of a Button (pg 163)



Edit the States of a Button

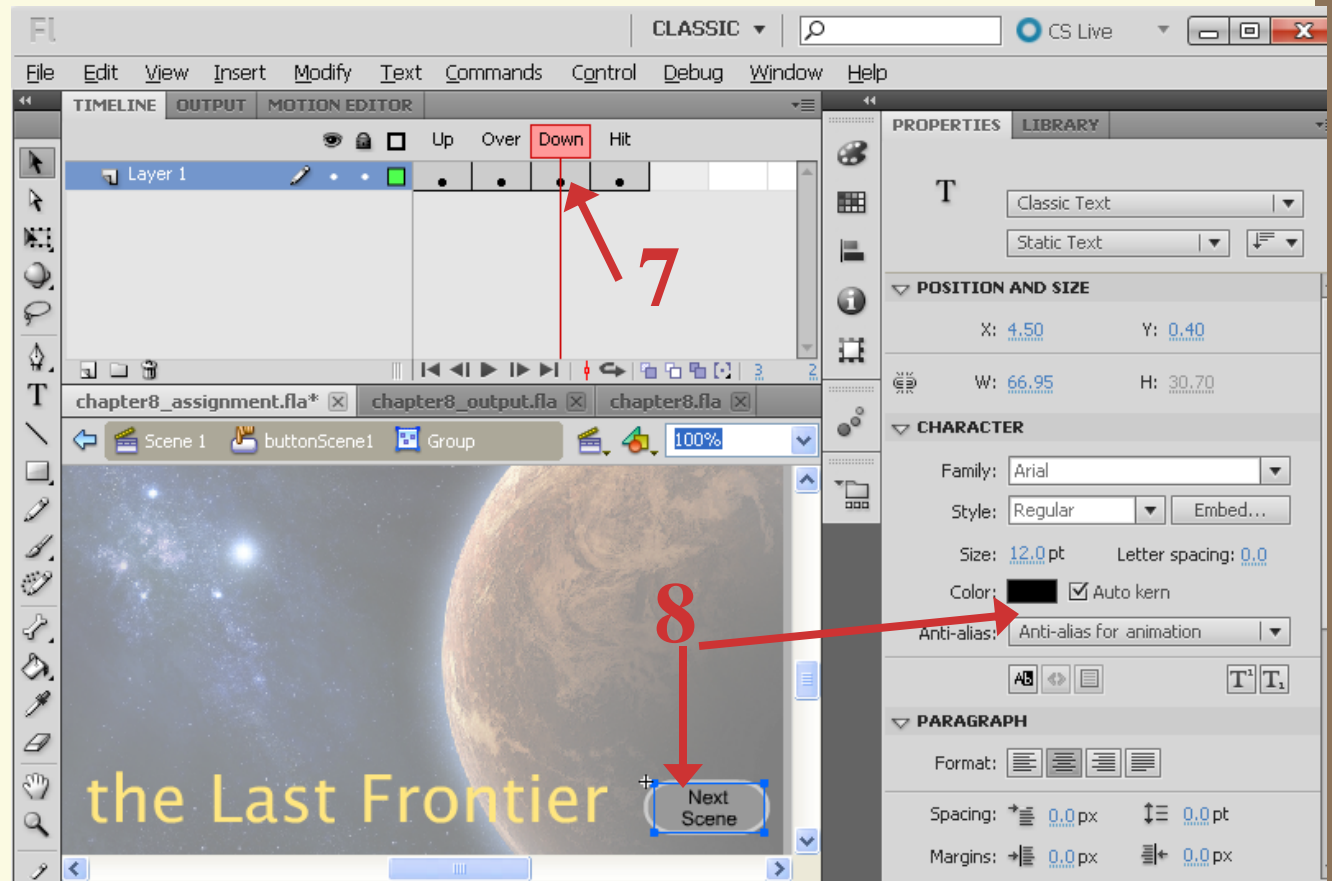
7. Click the **Down frame** in the Timeline.
8. Edit your button's elements with the Flash drawing tools.

Edit the States of a Button (pg 163)



Edit the States of a Button

This frame called **Down** becomes what is shown when a user clicks the button



Edit the States of a Button

(pg 163)



My button doesn't have Up, Over, Down, and Hit frames, but the Properties inspector say it is a button. Why?

If you place a graphic or movie clip symbol on the Stage and then cast it as button in the Properties inspector, it will have simple numbered frames.

Remember, when you edit a Symbol you are editing the blueprint for your object and not just modifying an instance.

In another symbol type cast as a button, frame 1 corresponds to **Up**, frame 2 to **Over**, frame 3 to **Down** and frame 4 to **Hit**.

Edit the States of a Button

continuation (pg 164)

- Your button will function without editing the states.
- However, rollover effects, and down states make for much more rich interaction.

Edit the States of a Button

continuation (pg 164)



Edit the States of a Button

9. Click the **Hit frame** in the Timeline
10. Click the **Rectangle tool**
11. Click and drag to draw a **rectangle around your button.**
12. Click the Scene 1 button

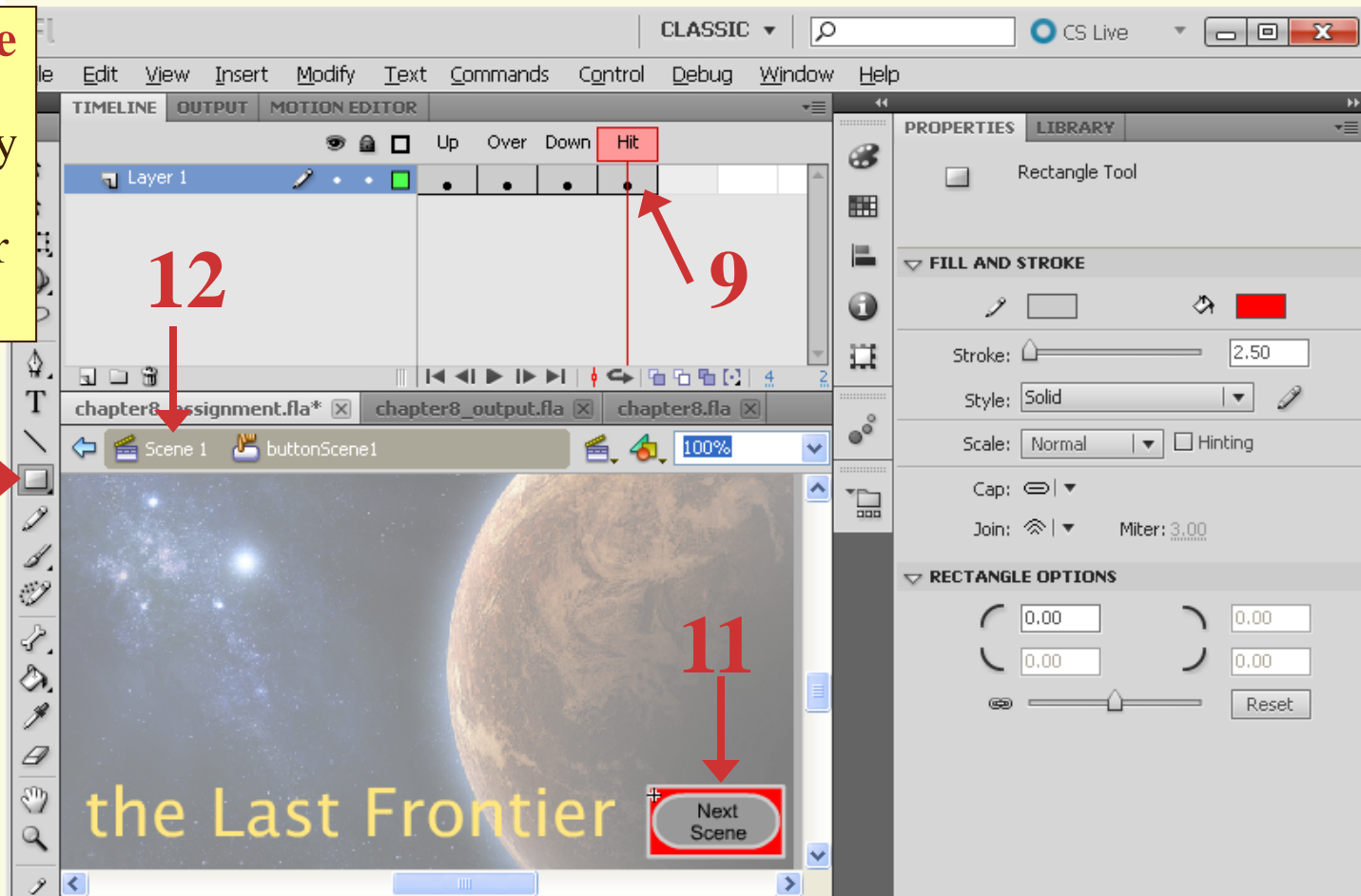
Edit the States of a Button

continuation (pg 164)



Edit the States of a Button

This **Hit frame** is not shown in Flash. It simply denotes the Hit area of the your button.



Edit the States of a Button



continuation (pg 164)

Why do I need to edit the Hit state?

As a general rule, it is good to always edit the Hit state of your buttons.

A common beginner's mistake in Flash is to create a button that is made up of text with no background and not have a solid Hit state.

By doing so, users must move their mouse over the actual lines of the letters in order to click the button.

Add a Behavior to a Button

(pg 166)

- You can use the Behaviors panel to add simple actions to your button without the need to learn how to write ActionScript.
- Behaviors are a simplified way of adding interactivity to your Flash projects.

Add a Behavior to a Button

(pg 166)

- It is important to note that behaviors only work in Flash movies using ActionScript 2.0 or lower.
- You must adjust your publish settings accordingly in order to use behaviors.
- And, you must be careful to not use any ActionScript 3.0 commands or functionality.

Add a Behavior to a Button

(pg 166)



Add a Behavior to a Button

1. Place an instance of a button symbol on the Stage.
2. Click Window
3. Click Behaviors
4. Click the Add menu icon button
5. Click Web
6. Click Web page

Add a Behavior to a Button

(pg 167)



Add a Behavior to a Button

7. Type a Web site URL
8. Click OK
9. Press <Ctrl><Enter> to test your movie
10. Click your button

Add a Behavior to a Button

(pg 167)



How do I delete a behavior?

You can delete a behavior by opening the Behaviors panel, clicking on the behavior you want to remove, and then clicking the Delete Behavior button.

Add a Behavior to a Button

(pg 167)



How do edit a behavior?

Double-click on the name of the behavior you want to edit in the Action column of the Behaviors panel.

Depending on the type of behavior you selected, a dialog box appears that allows you to adjust your settings.

Create a Movie Clip Symbol

(pg 167)

- You can create movie clips that contain graphics and animation.
- Movie clip symbols are more powerful than graphic symbols because you can give them instance names that allows them to be controlled by ActionScript.

Create a Movie Clip Symbol

(pg 167)



Create a Movie Clip Symbol

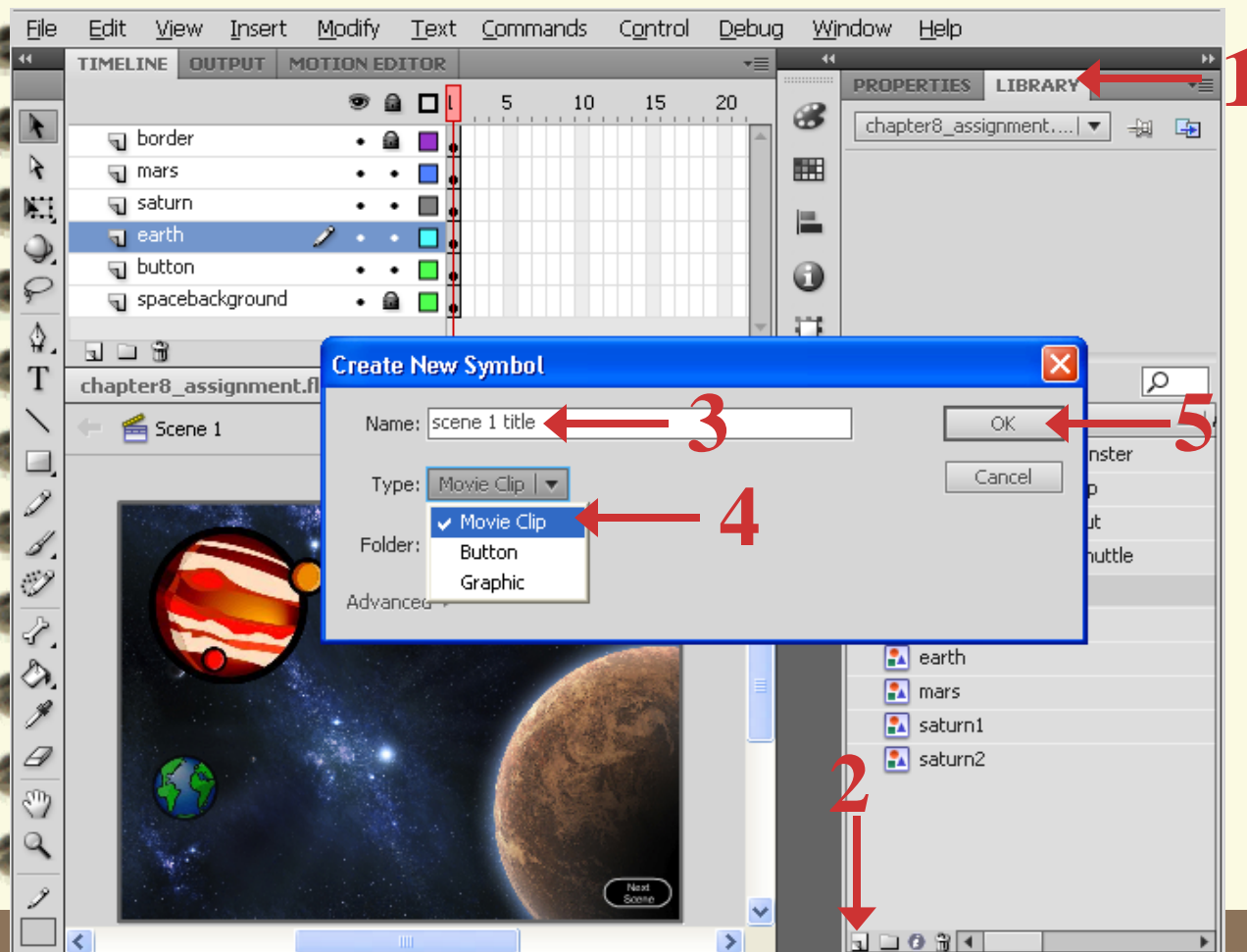
1. Open the **Library panel**.
2. Click the **New Symbol** button
3. Click here and type a **name** for your movie clip.
4. Click the Type drop-down list and select **Movie Clip**
5. Click **OK**

Create a Movie Clip Symbol

(pg 167)



Create a Movie Clip Symbol



Create a Movie Clip Symbol

(pg 167)



Create a Movie Clip Symbol

6. Add **elements** to your movie clip with the Flash drawing tools.
7. Click the **Scene 1** button to return to the main Timeline.
8. Click on the **frame** where movie clip will be inserted onto the layer.
9. Click and drag an instance of your new movie clip from the Library onto the Stage

Create a Movie Clip Symbol

(pg 167)



Create a Movie Clip Symbol

The screenshot displays the Adobe Flash CS4 interface. The main workspace shows the text "Space the Last Frontier" in yellow. A red arrow labeled "6" points from the text to the Properties panel on the right. The Properties panel shows the following settings:

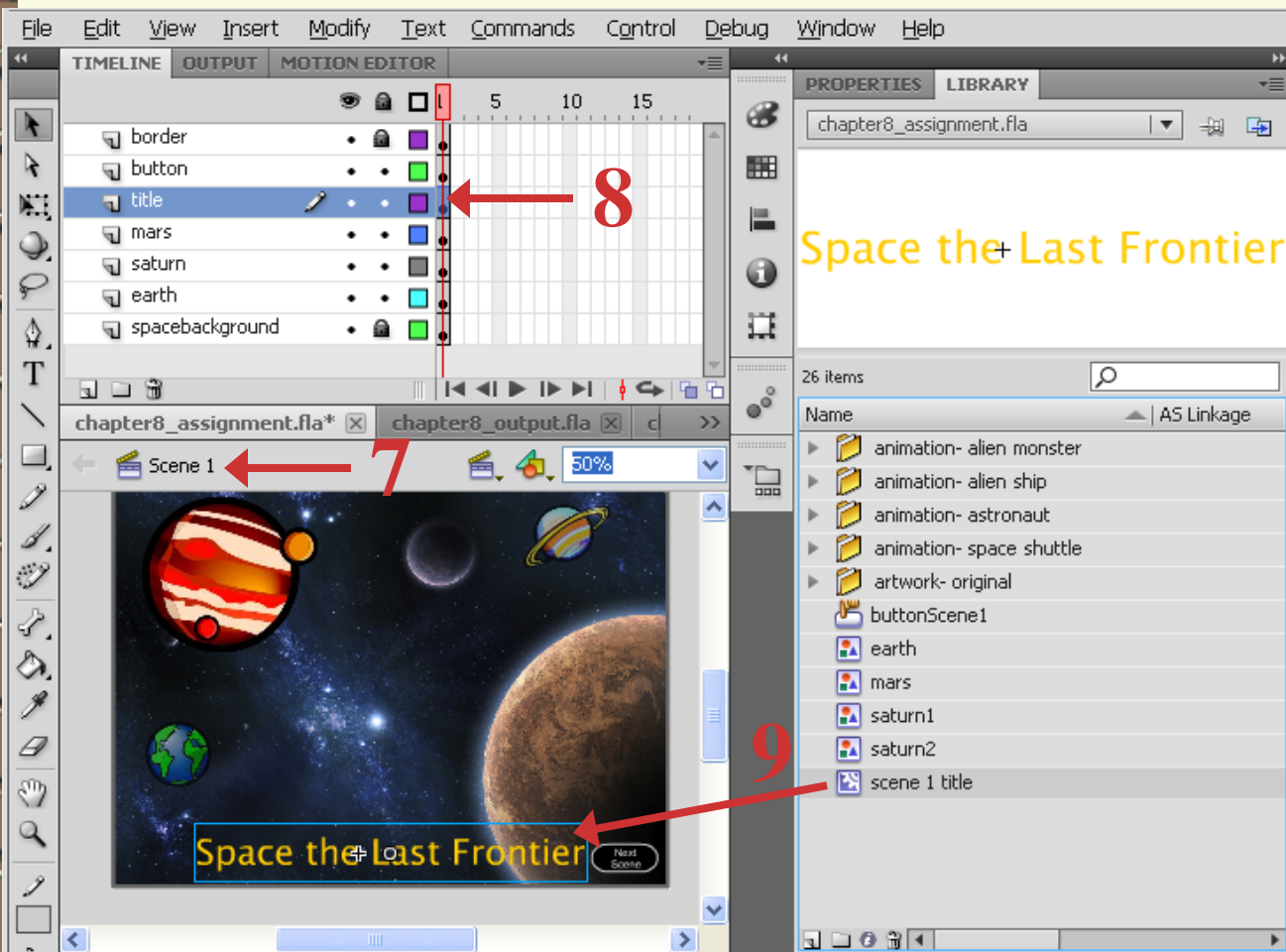
- Font: Classic Text
- Text Type: Static Text
- Position and Size: X: -186.35, Y: -32.85, W: 446.90, H: 65.45
- Character: Family: Lucida Sans Unicode, Style: Regular, Size: 40.0 pt, Letter spacing: 0.0, Color: Yellow, Anti-alias: Anti-alias for animation
- Paragraph: Format: [Left, Right, Justify, Center], Spacing: 0.0 px, -9.0 pt, Margins: 0.0 px, 0.0 px, Behavior: Multiline

Create a Movie Clip Symbol

(pg 167)



Create a Movie Clip Symbol



Your new movie clip appears on the Stage

Create a Movie Clip Symbol

(pg 169)



Add instance of a movie clip

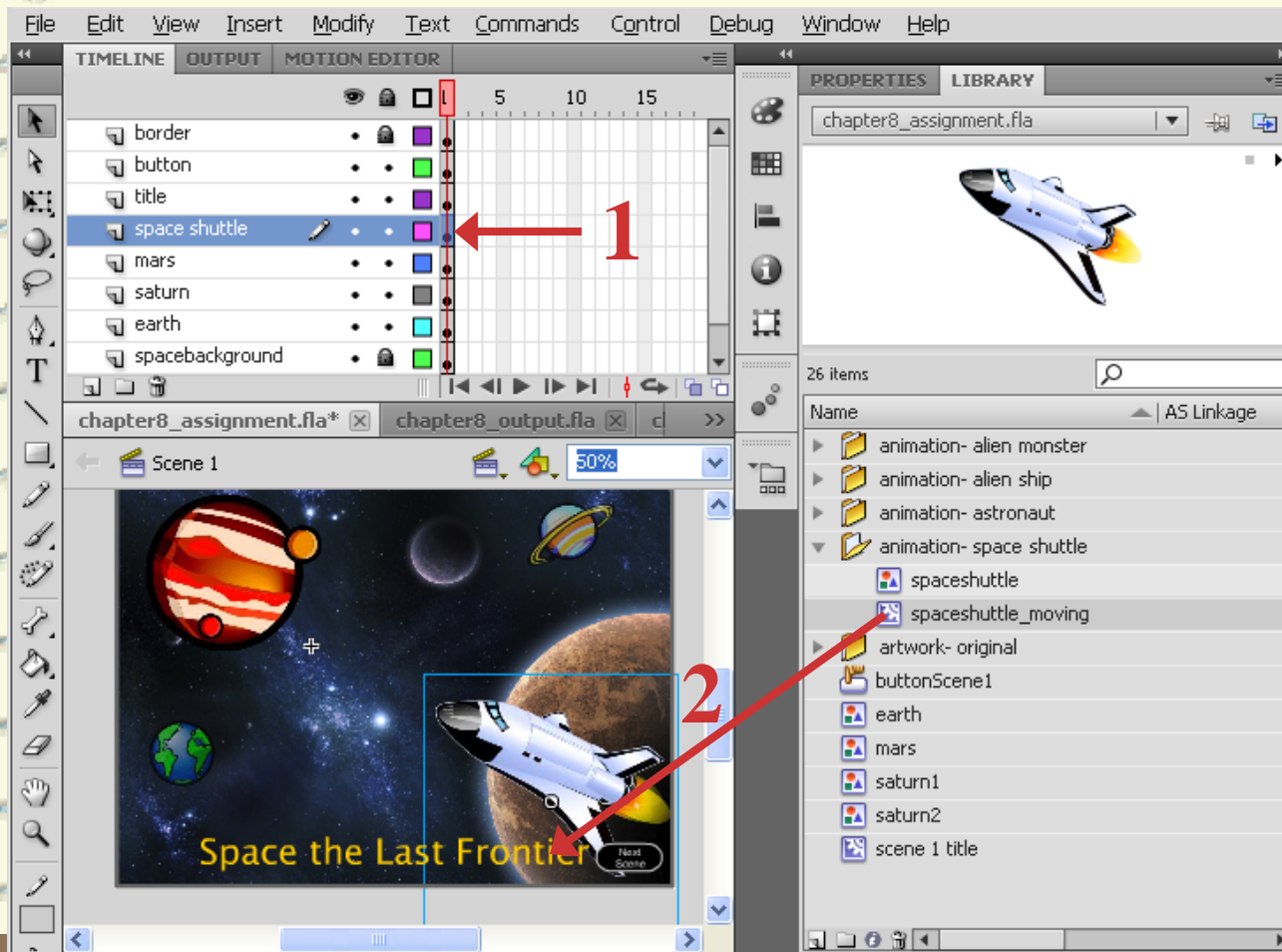
1. Click on the **frame** where the instance of the movie clip symbol will be inserted onto the layer.
2. Click and drag an instance of your new movie clip from the Library onto the Stage
3. Repeat steps 1- 2 for other movie clip

Create a Movie Clip Symbol

(pg 169)



Add instance of a movie clip



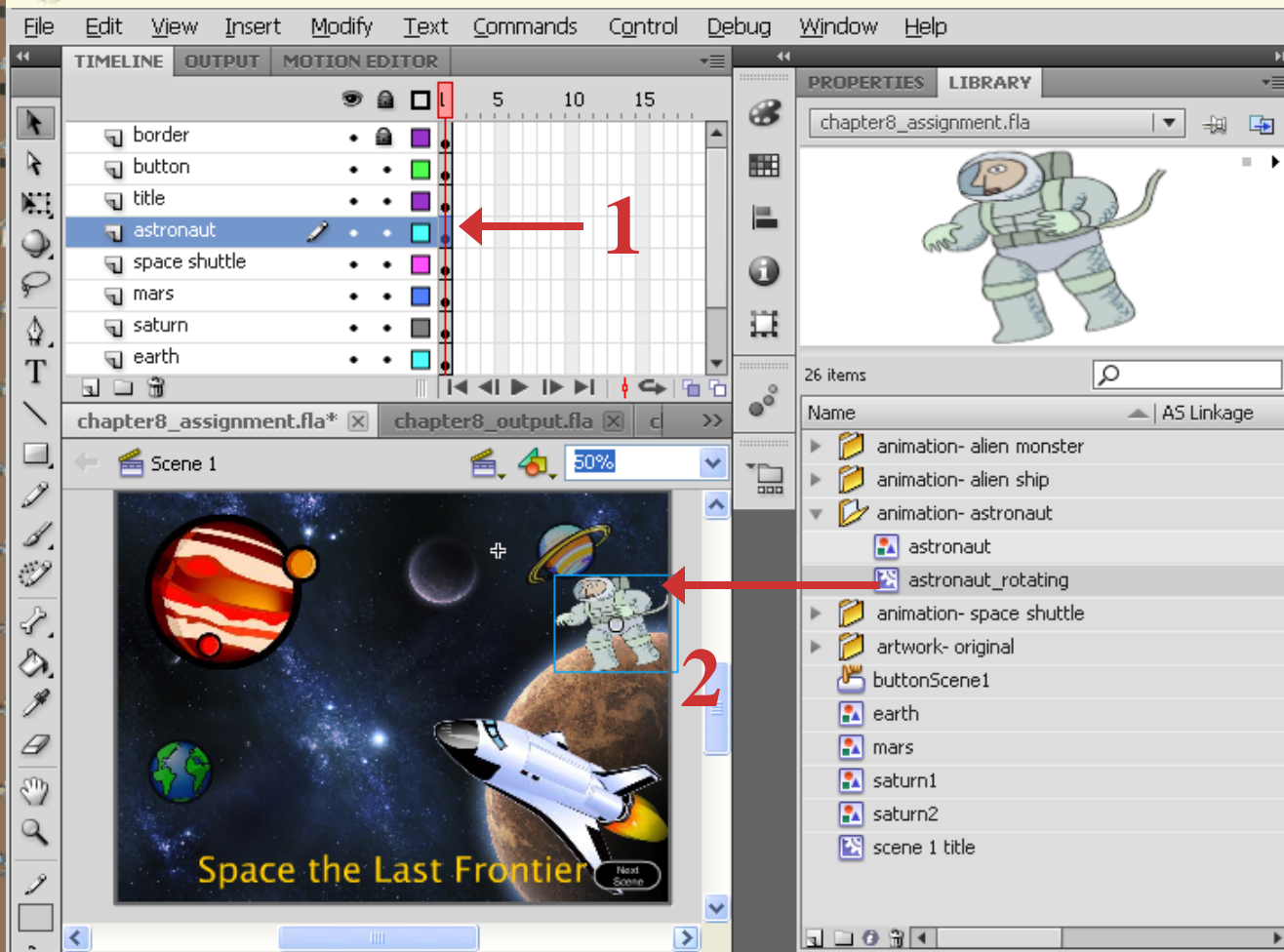
Your movie clip appears on the Stage

Create a Movie Clip Symbol

(pg 169)



Add instance of a movie clip



Your movie clip appears on the Stage

Create a Movie Clip Symbol

(pg 169)



Can I create a symbol from elements already on the Stage?

Yes. There are two ways to create a symbol. One way is to use the New Symbol button in the Library, as described in this section.

The other way is to use the Convert to Symbol menu item as described in the section “Create a Graphic Symbol”.

Create a Movie Clip Symbol (pg 169)



Does using movie clips instead of graphics increase my file size?

Movie clips have a little more overhead than graphics do when exported in Flash movies.

Most of the time, however, the difference is negligible.

If you are concerned about your file's size, it is more prudent to change your bitmap and sound compression settings.



Preview a Symbol (pg 170)

- You can use the **Library** to play through your symbols so you can better identify them.
- Sometimes, symbols do not include any graphics on the first frame.
- For example, a picture that fades in is invisible on the Stage and does not show a preview in the Library.
- Or, you may have a sound symbol that does not have a very descriptive name.

Preview a Symbol (pg 170)



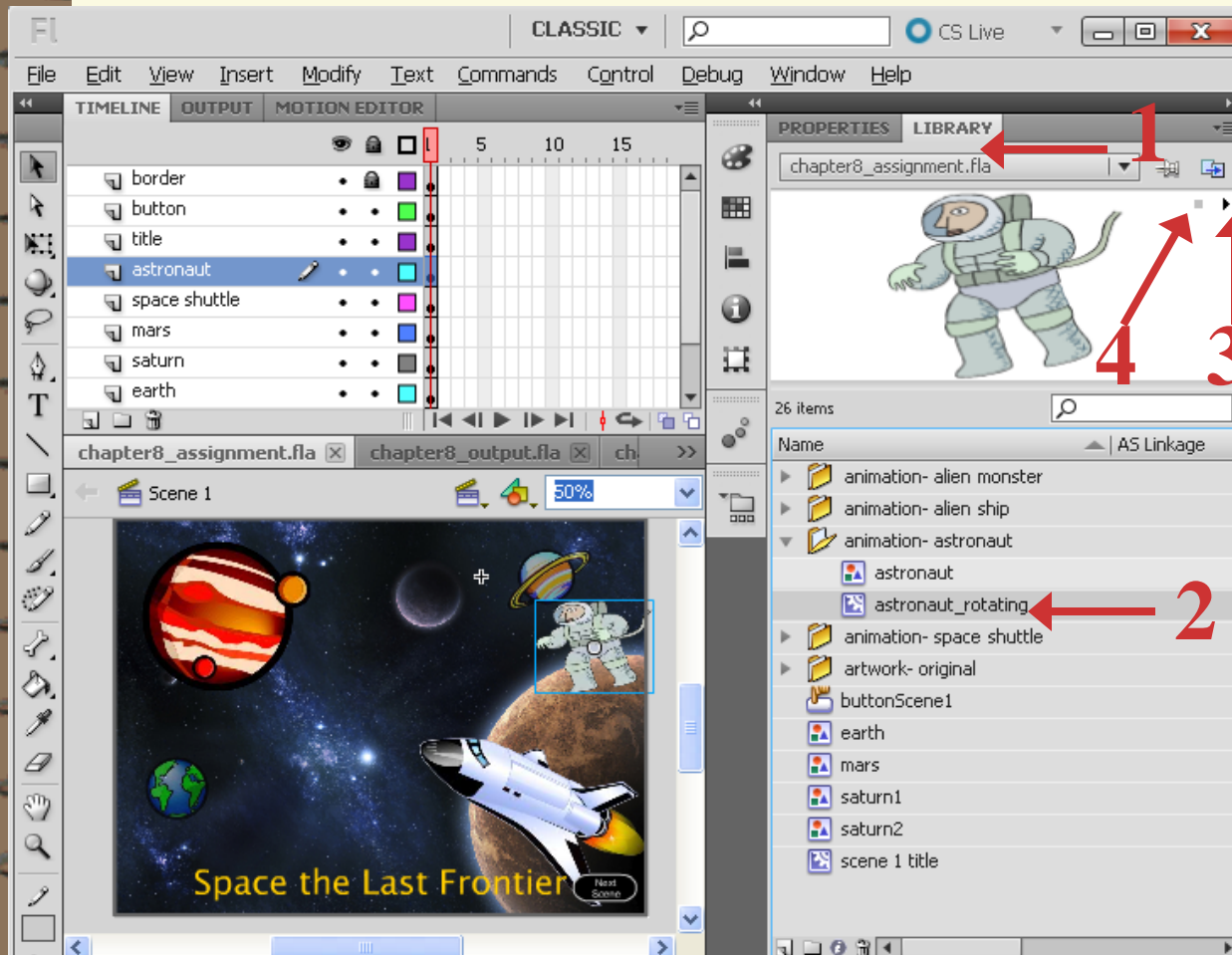
Preview a Symbol

1. Open the **Library** panel
2. Click the **symbol** you want to preview
3. Click play button 
4. Click  to stop the preview

Preview a Symbol (pg 170)



Preview a Symbol



Flash plays through all the frames of the symbol in the preview area.

Preview a Symbol (pg 171)



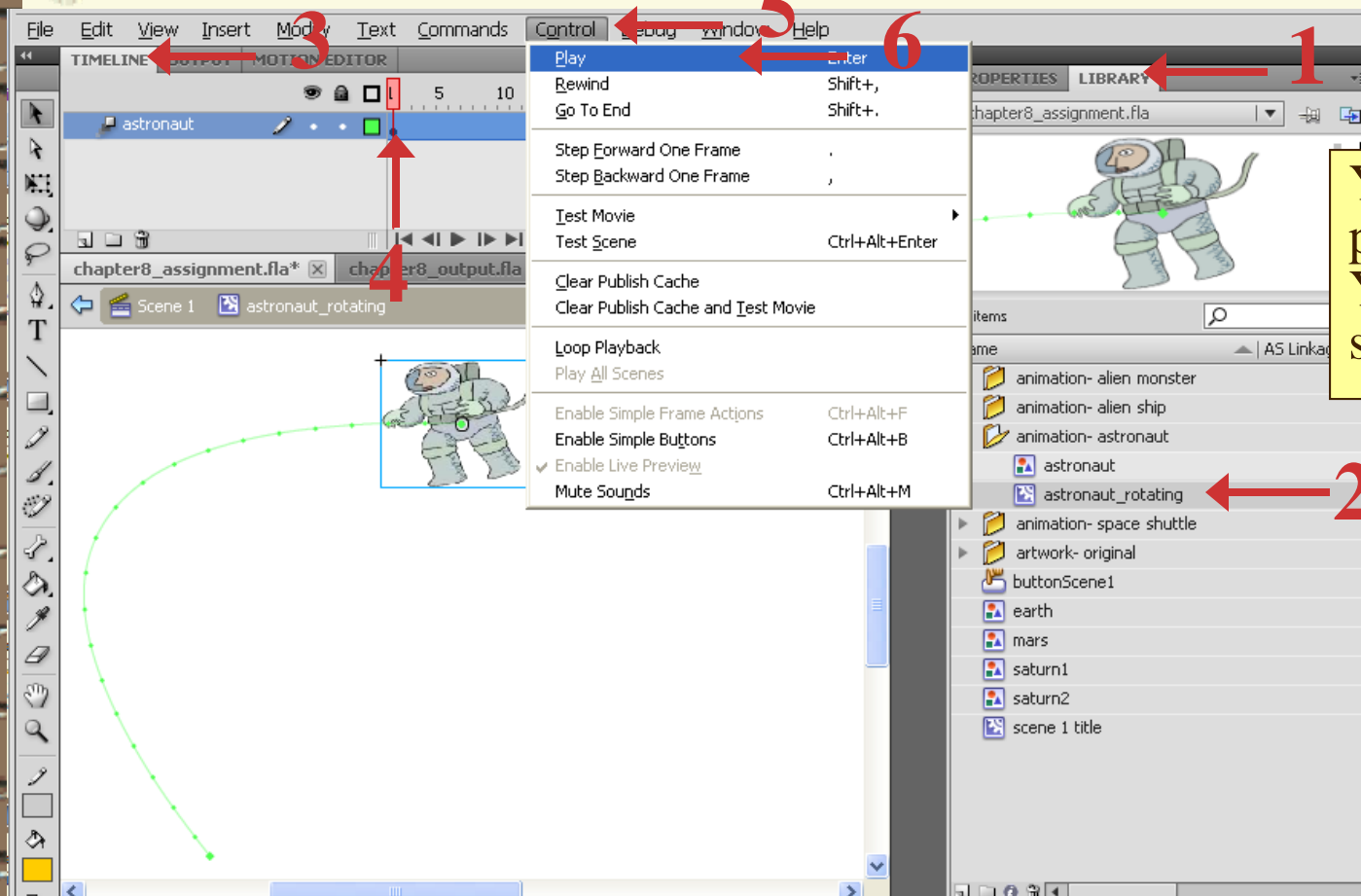
Preview a Symbol on the Stage

1. Open the **Library panel**.
2. Double click the **symbol** you want to preview.
3. Open the **Timeline panel**
4. Click **frame 1** on your movie clip.
5. Click **Control**
6. Click **Play**

Preview a Symbol (pg 171)



Preview a Symbol on the Stage



You can also press **<Enter>**. Your movie clip symbol plays

Preview a Symbol (pg 171)



How do stop the preview from playing on the Timeline?

You can simply press <Enter> again and the play head stops. You can also click Window, Toolbars, and then Controller, which displays a panel with DVD player-style controls for your Timeline.

Apply Filters to an Instance

(pg 172)


- You can add drop shadows, glows, blurs, and bevels to your button and movie clip instances.
- Using filters can be a good way to save file size by reducing the number of imported graphics you need.

Apply Filters to an Instance

(pg 172)



Add a drop shadow filter

1. Click a **movie clip** or button symbol on the Stage with the Selection tool
2. Open the **Properties inspector**.
3. If it isn't already expanded, click **Filters**
4. Click the **Add Filter** button 
5. In the menu that appears, click **Drop Shadow**

Apply Filters to an Instance

(pg 172)



Add a drop shadow filter

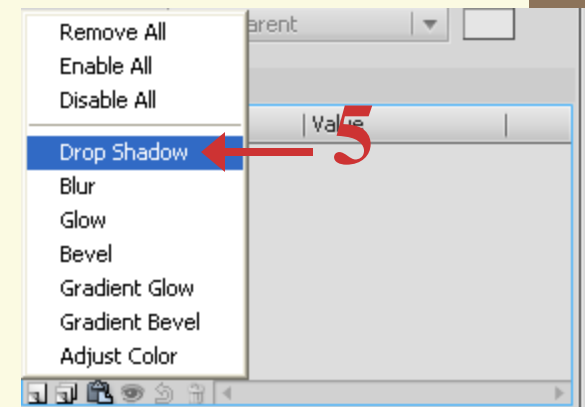
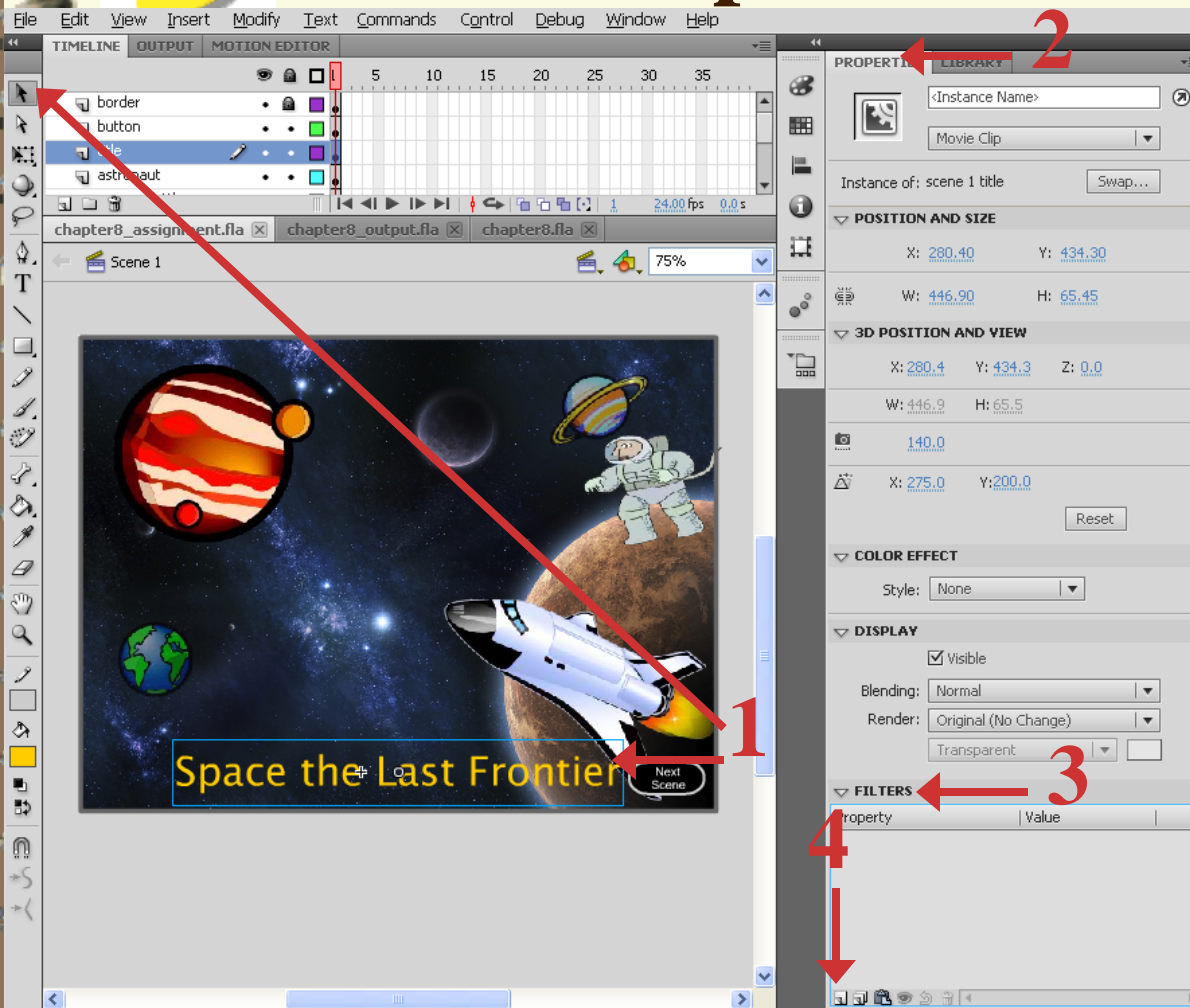
6. Click and drag the Distance setting until it has a value you like.

Apply Filters to an Instance

(pg 172)



Add a drop shadow filter



Apply Filters to an Instance

(pg 172)



Add a drop shadow filter

The screenshot shows the Adobe Animate interface. The main canvas displays a space scene with a planet, a moon, a rocket, and an astronaut. A text instance 'Space the Last Frontier' is overlaid on the scene. The Properties panel on the right is open to the 'FILTERS' section, showing the 'Drop Shadow' filter settings. A red arrow points to the 'Strength' property, which is set to 100%.

Property	Value
Blur X	0 px
Blur Y	0 px
Strength	100 %
Quality	High
Angle	45 °
Distance	3 px
Knockout	<input type="checkbox"/>
Inner shadow	<input type="checkbox"/>
Hide object	<input type="checkbox"/>
Color	Black

You can also adjust other values of the filter.

Apply Filters to an Instance

(pg 173)



Adjust Color

1. Click the **Add Filter** button
2. In the menu that appears, click **Adjust Color**
3. Click **Hue** setting
4. Type a value between **- 180 and 180**.

Apply Filters to an Instance

(pg 173)

demo

Adjust Color

The screenshot displays the Adobe Flash CS4 interface. The main stage shows a space-themed scene with a planet, a rocket, and an astronaut. The Properties panel on the right is open to the 'Adjust Color' filter. A red arrow labeled '1' points to the 'Adjust Color' filter icon in the bottom toolbar. A red arrow labeled '2' points to the 'Adjust Color' filter name in the filter list. A red arrow labeled '3' points to the 'Saturation' property value in the 'Adjust Color' section.

Property	Value
Drop Shadow	
Adjust Color	
Brightness	0
Contrast	0
Saturation	0
Hue	0

Flash renders the blend mode on the Stage.

Apply Filters to an Instance

(pg 173)



How many filters can I have?

You can add as many filters as you want. In fact, you can have multiple versions of the same filter.

For example, you can have a black drop shadow and a red drop shadow, or multiple gradient glows.

Apply Filters to an Instance

(pg 173)



What does the Quality filter setting do?

Sometimes, depending on the power of your computer and graphics card, animation may stutter when using high-quality filters.

If you plan on distributing your Flash project over the Web, considering using medium or low quality to accommodate those with less than optimal computers.

Apply a Blend Mode to an Instance

(pg 174)

- You can use blend modes that are very similar to those in Adobe Photoshop in Flash.
- Blend modes allow you to create transparency effects like darken, multiple, hard light, screen overlay, and others.
- Many times you will not know which blend mode you want until you see it.

Apply a Blend Mode to an Instance

(pg 174)



Apply a Blend Mode to an Instance

1. Click a **movie clip** or button instance on the Stage with the Selection tool.
2. Open the **Properties** inspector.
3. If it isn't already open, click **Display** in the Properties panel.
4. Click the **Blending** drop-down
5. Click **Multiply**

Apply a Blend Mode to an Instance (pg 174)



Apply a Blend Mode to an Instance

The screenshot displays the Adobe Animate workspace. On the left, the Timeline and Output panels are visible. The main stage shows a space-themed scene with a planet, an astronaut, and a space shuttle. A blue box highlights the space shuttle instance, with a red arrow labeled '1' pointing to it. On the right, the Properties panel is open, showing the instance name and various properties. A red arrow labeled '2' points to the Properties panel header. The 'DISPLAY' section is expanded, and the 'Blending' dropdown menu is open, showing various blend modes. A red arrow labeled '3' points to the 'DISPLAY' section, and another red arrow labeled '4' points to the 'Blending' dropdown. The 'Hard Light' blend mode is selected, with a red arrow labeled '6' pointing to it. The 'Render' dropdown is also visible, with a red arrow labeled '5' pointing to it.

Understanding the Difference Blend Modes

(pg 175)

Normal- This mode indicates that no blending is applied

Layer- This blend mode makes your symbol behave as though it is a single image, regardless of its subcomponents.

Darken- This blend mode shows the darkest color per pixel

Multiply- This blend mode multiplies the color values. The result is usually darker.

Lighten- This blend mode replaces colors if they are lighter.

Screen- This blend mode multiplies the inverse of the blend and base colors.

Overlay- This blend mode darkens dark colors like multiply and lightens light colors.

Understanding the Difference Blend Modes

(pg 175)

Hard Light - This blend mode colors lighter than gray will screen, colors darker than gray will multiply.


Add - This blend mode adds the color values together, usually resulting in an increase in brightness.

Subtract - This blend mode subtracts color values from one another, usually resulting in a decrease in brightness

Difference - This blend mode subtracts the less bright color from the brighter color

Invert - This blends mode simply inverts the colors of anything underneath

Alpha - This blends mode extracts the alpha (transparency) value and applies it to the objects underneath



Understanding the Difference Blend Modes (pg 175)

Erase - This blend mode inverts the alpha before applying it to the objects underneath

Rotate and Translate MovieClips Instances with 3-D Tools (pg 176)

- If you are familiar with other applications with **3-D capabilities**, it is important to note that Flash does not do depth buffering.
- Basically, that means that object that intersect in 3-D space do not follow the rules of 3-D, but follow the rules of layers and arrangement.


Rotate and Translate MovieClips Instances with 3-D Tools (pg 176)

- Flash CS5 has new toolset for rotating and translating movie clip objects in three dimensional space.
- To translate an object is simply to move it to a new set of coordinates.
- You can use these tools to create realistic-looking 3-D effects.
- Your publish settings must target ActionScript 3 to use the 3-D tools

Rotate and Translate MovieClip Instances with 3-D Tools (pg 176)



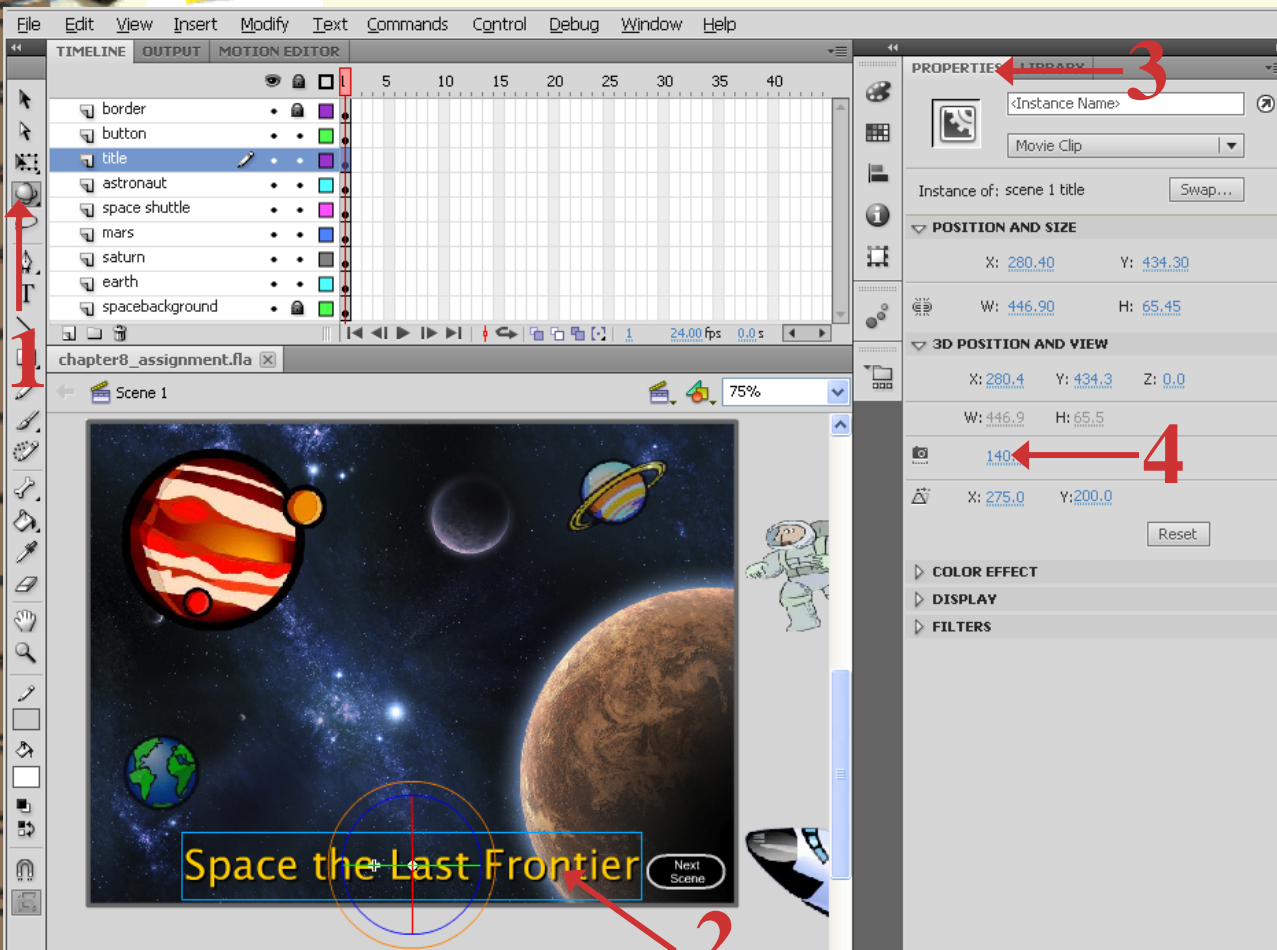
Rotate in 3-D

1. Click the **3D Rotation** tool 
2. Click a **MovieClip instance** on the Stage.
3. Open the **Properties** inspector
4. Click the blue number next to the **Camera** icon and set the perspective angle value of 140.
5. Click and drag the **red line** which is the **free-form 3-D rotation**, and change the perspective of your movie clip

Rotate and Translate MovieClips Instances with 3-D Tools (pg 176)



Rotate in 3-D



The **red line** represents the X-axis.

The **green line** represents the Y-axis

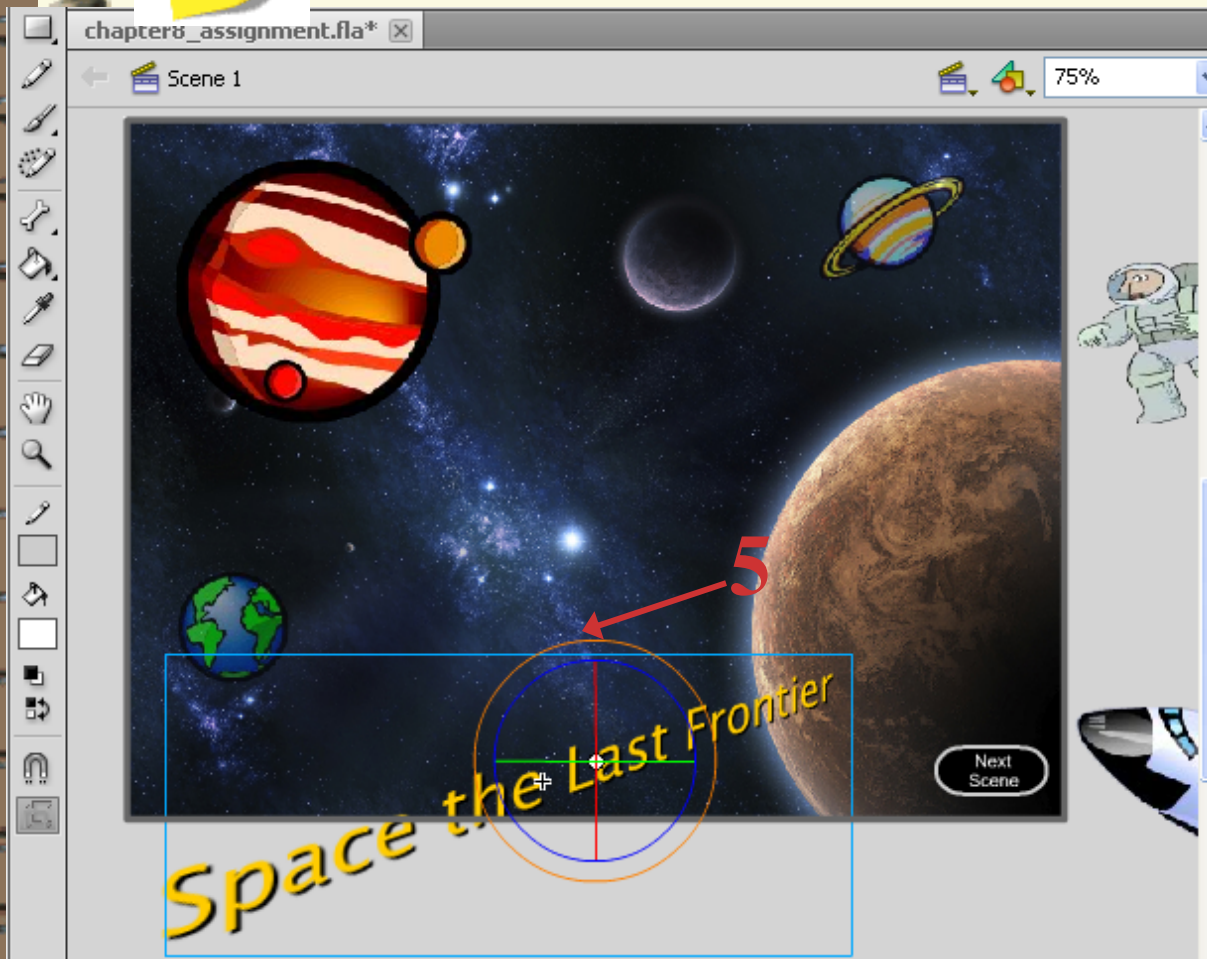
The **blue circle** represents the Z-axis

The **orange circle** is the free-form 3-D rotation

Rotate and Translate MovieClips Instances with 3-D Tools (pg 176)



Rotate in 3-D



The **red line** represents the X-axis.

The **green line** represents the Y-axis


The **blue circle** represents the Z-axis

The **orange circle** is the free-form 3-D rotation

Rotate and Translate MovieClips Instances with 3-D Tools (pg 177)



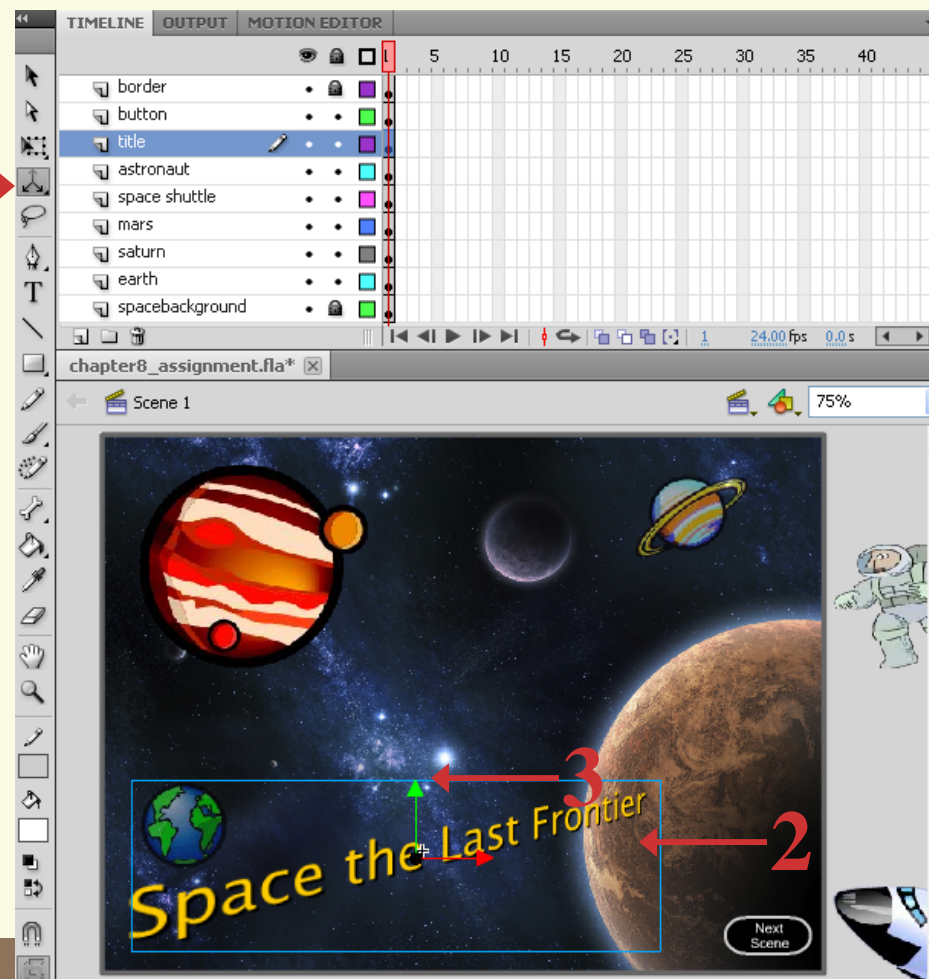
Translate in 3-D

1. Click on the **3-D Translation** tool 
2. Click a **movie clip** to select it
3. Click and drag the **green arrow** to move your movie clip upward in 3-D space.

Rotate and Translate MovieClips Instances with 3-D Tools (pg 177)



Translate in 3-D



The **red arrow** represents the X-axis.

The **green arrow** represents the Y-axis

The **blue dot** represents the Z-axis

Rotate and Translate MovieClips Instances with 3-D Tools (pg 177)



I can't get my movie clip back to its original position and rotation. How can I?

A quick trick to reset your translation and 3-D rotation is to open the Properties inspector, and click the top-most-drop-down menu, where Movie Clip is currently selected.

Then click Graphic to cast your instance as a graphic.

The resets your 3-D position and view because graphic instances cannot be moved in 3-D. Then, cast your instance as a movie clip again to start over.

Rotate and Translate MovieClips Instances with 3-D Tools (pg 177)



When I change my camera, it modifies every 3-D movie clip. Why?

You can only have one camera in Flash.

So any time you modify the perspective angle it affects all of your 3-D objects.