STRATEGIC WEBSITE TECHNOLOGIES

LECTURE 6
(FLASH)

1

Plug-ins and helper applications

A plug-in is a software program or a piece of hardware which provides a service on a specific program or a utility (eg. play some sounds, display something etc.) that the browser alone is not capable of providing. **(e.g. Flash, RealAuidio)**

Upside

You can do almost anything with a plug-in software.

Real time simulations, video, slide-shows etc are all possible with the help of plug-ins.

Plug-in is transferred and installed to the user's machine once. Then just the data is sent.

Downside

You have to convince users to install the plug-in software.

(They have to spare time for that and **trust you**!)

2

FLASH – the technology

Flash is a technology that allows transmission of vector graphics and animations through internet. Vector graphics are formed of considerably simple shapes including lines, rectangles, circles etc.

Flash do not send the resulting image (or animation) pixel by pixel instead it sends the commands to create that image (or animation).

This means a very fast transmission of images (and animations) in comparison to bitmap images such as gif and jpg files.

Flash also supports streaming. That is images and animations are started to be shown before everything is completely downloaded.

It is possible to create animated buttons using Flash.

Using scripts it is possible to create very interactive pages.

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Flash – the history

Flash has started its life as *Future Splash Animator*.

In 1997, Macromedia bought *FutureSplash* and named it Flash.

Flash is essentially a plug-in software. This used to be the greatest disadvantage of Flash.

However, due to the tremendous interest in the technology Netscape and Internet Explorer has started to give full support for Flash technology in their recent versions.

The most recent version of Flash is Flash 5.

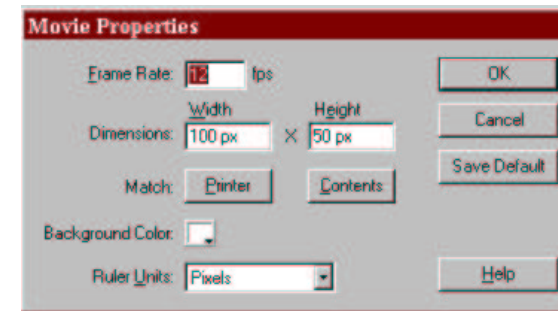The Flash editor is used to create a Flash animation.

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Timeline

Drawing tool

Work area
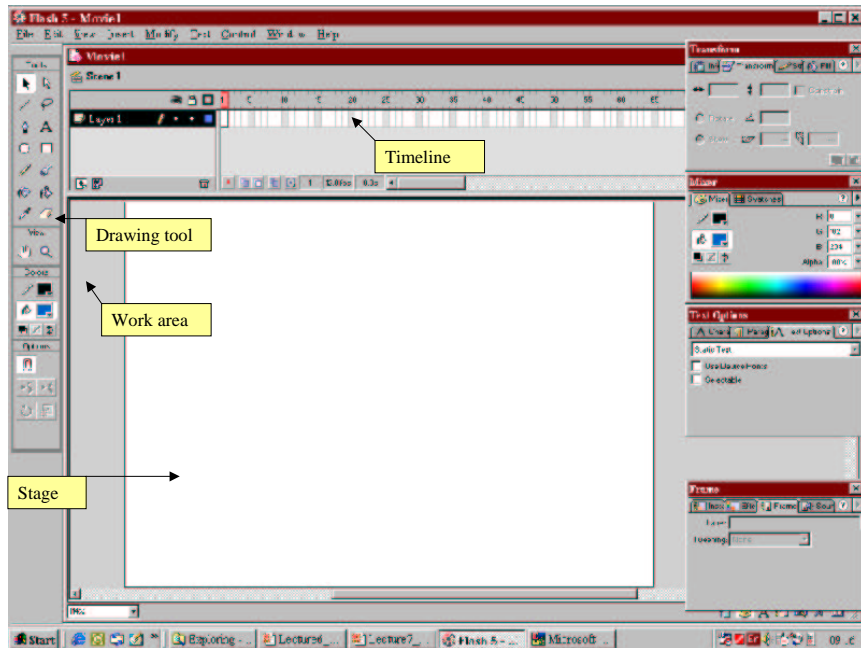
Stage

Editing movie properties

It is possible to change the properties of a movie by pressing Ctrl-M or selecting Movie from Modify menu.

It is possible to change the size of the movie and background color from the pop up menu. Choose your stage dimensions as 250 x 80.


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Creating a motion tween

Using text tool write HELLO WORLD on the screen. By the help of the Character panel, which can be selected from Panels tab under Windows menu, make sure that you use 24pt Bold characters.

Text tool

Character panel

HELLO WORLD
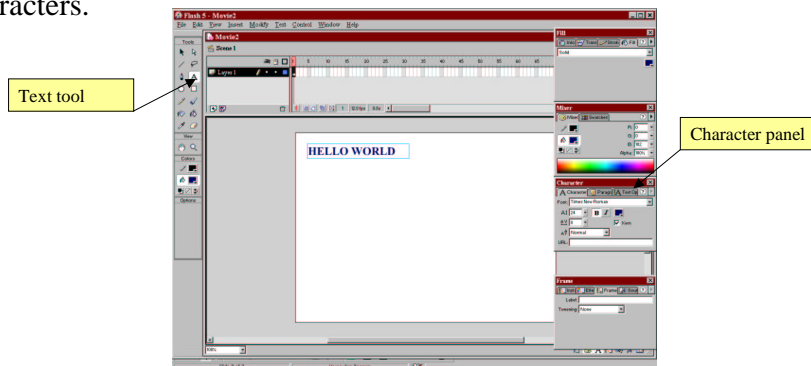
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Pressing F8 or selecting Convert to Symbol from Insert menu convert the text you have written to a Graphic symbol.

Select Graphic
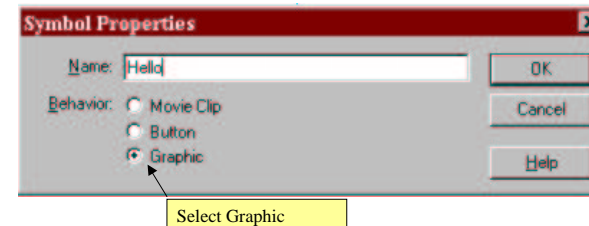
Then select frame 20 in time-line and press F6 or select Keyframe from Insert menu to insert a keyframe at this location.

You should see that HELLO WORLD has also appeared in this frame. Choose frame 1 and select the HELLO WORLD object. Now from effects panel choose alpha and set its value to 20%.

Choose create motion tween from Insert menu.

CONGRAGULATIONS you have created an animation! Press ENTER to see the animation you have created.

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Now save your movie with the name Hello.fla and then choose publish from File menu.

Once your animation is published 2 files with the names Hello.swf and Hello.html will be created. The .swf file contains essential information about the movie so that browsers (actually the Flash plug-in) can interpret it and recreate the animation. The .html file contains html tags so that browsers can use the animation.

It is possible to edit the .html file using any text editor. Hence, you can embed Flash animations to your existing pages.

All you need to is to copy and paste everything in between the <OBJECT> and </OBJECT> tags.

Hello.html

```
<HTML>
<HEAD>
<TITLE>Hello</TITLE>
</HEAD>
<BODY bgcolor="#FFFFFF">
<!-- URL's used in the movie-->
<!-- text used in the movie-->
<!--HELLO WORLD -->
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
 codebase="http://download.macromedia.com/pub/shockwave/cabs/
              flash/swflash.cab#version=5,0,0,0"
 WIDTH=250 HEIGHT=80>
 <PARAM NAME=movie VALUE="Hello.swf">
 <PARAM NAME=quality VALUE=high> <PARAM NAME=bgcolor VALUE=#FFFFFF>
 <EMBED src="Hello.swf" quality=high bgcolor=#FFFFFF
  WIDTH=250 HEIGHT=80
  TYPE="application/x-shockwave-flash"
  PLUGINSPAGE="http://www.macromedia.com/shockwave/download/
                  index.cgi?P1_Prod_Version=ShockwaveFlash">
 </EMBED>
</OBJECT>
</BODY>
</HTML>
```

You can change the size and rotate the objects in key frames by first selecting them and selecting Scale or Rotate from the pop-up menu that appears by clicking the right mouse button.

All the changes you made will be automatically reflected to middle frames! Try for example, scaling down the HELLO WORLD object in frame 20.
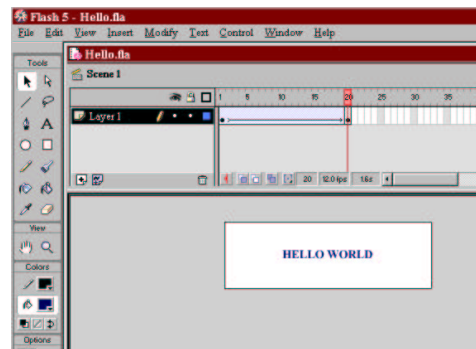

Adding new layers

It is possible to add new layers to your animation by choosing Layer from Insert menu or by just clicking + button under layers tab.

Add a new layer to your animation rename it as ball. Select the first frame in this layer and draw a small circle on the bottom left corner. Convert this circle to a graphic symbol.

Insert key frames to 10th and 20th frames and create motion tweens.

At the end, the ball should be bouncing below HELLO WORLD.
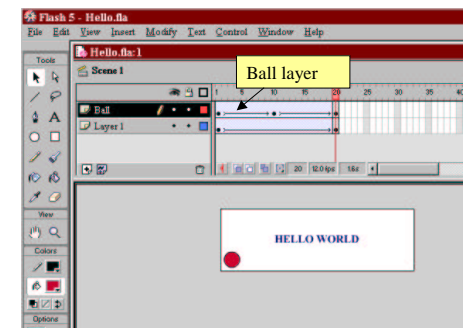
Shape tweening

By creating *motion tweens* it is possible to scale and rotate objects and apply color effects. However, if a shape is required to be converted to another shape then shape tweening should be used.

A shape tweening can be created by selecting the starting key frame and then selecting shape tweening from Frame panel.

• Create a new layer called Shape and move it below Layer 1 so that this new layer acts as a background layer.

• Draw a rectangle around HELLO WORLD in frame 1. Make frame 20 a key frame. Remove the rectangle and draw a large circle around the text HELLO WORLD.

• Select Frame 1 and choose shape tweening from Frame panel.

• You should see that the rectangle is converted to a circle smoothly in the animation.

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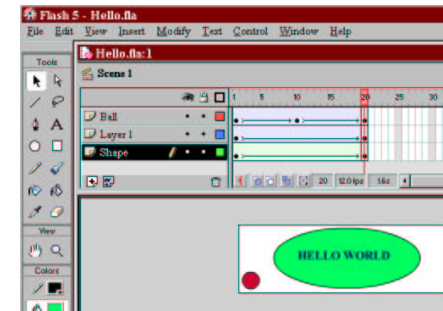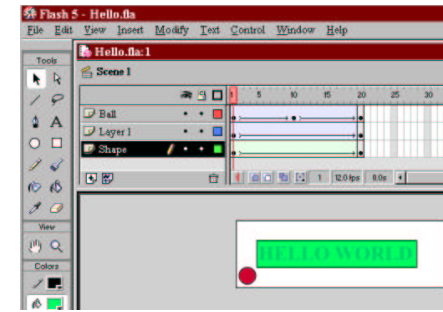
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Shape tweening text

Texts are normally saved as vectors and therefore cannot be shape tweened.

In order to shape tween texts we first convert them to shapes by using Break Apart (from Modify menu) or pressing Ctrl+B.

• Start a new document and write WELCOME TO in the first frame.

• Insert a key frame into 20th frame.

• Move to the first frame and convert the text into shapes.

• Move to 20th frame change the text to read FLASH 5, and convert this into shapes.

• Create a shape tween.

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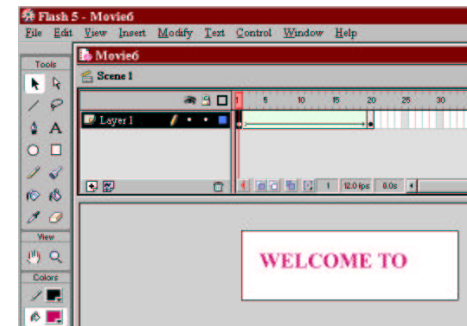
In the animation you should see that WELCOME TO changes to FLASH 5 smoothly!

You can try to change the color rotation and size of the shapes you have created!
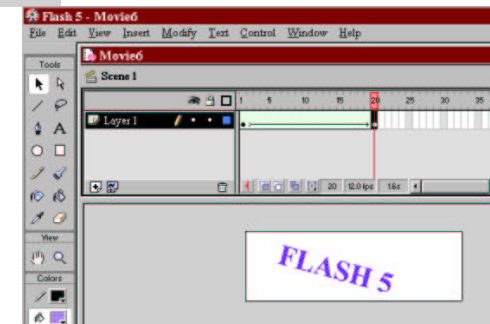
Creating a Motion Guide

A motion tween does not have to follow a linear path in between key frames. A path to be followed can be defined by a motion guide.

Add a new layer to Hello.fla. Rename this layer as Guide and by clicking right mouse button select properties of the layer. Change the type of the layer to Guide. Similarly make the ball layer a guided layer.
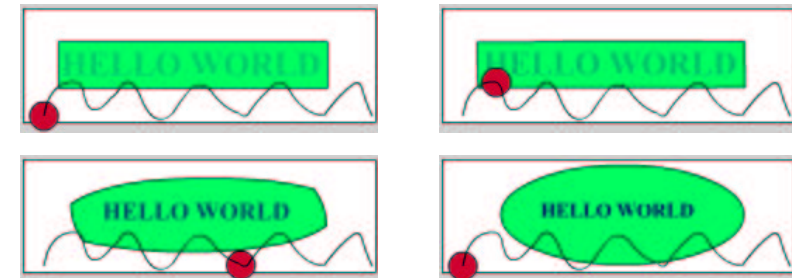

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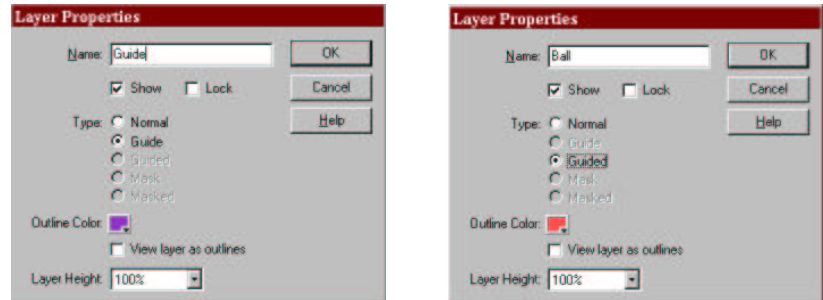
Now using pencil tool draw a path from bottom left corner to bottom right corner in the Guide layer.

Then lock the ball to the end points of this path at the 1st and 20th frames in the ball layer.

When the ball is locked you will see a small circle appearing at the center of the ball.

You should see now that the ball follows the given path in animation.

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Creating a movie clip

In Flash, it is possible to create objects that are animating themselves. To do this, you can select New Symbol from Insert menu and select Movie Clip.

When you do this a tab is opened for you to edit the movie clip you are inserting.

This movie clip can be edited as a complete animation. For example, you can animate a candle in a movie clip.
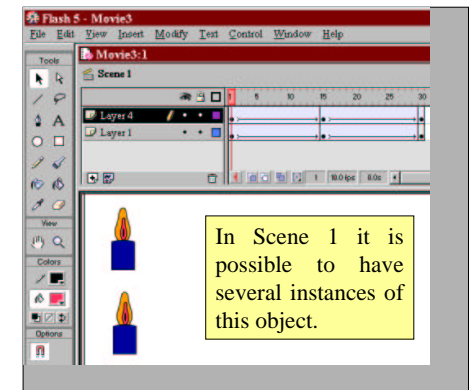
When finished editing the movie clip, you can select Scene 1 tab (or select Edit Movie in Edit Menu) to continue editing you animation.

You can copy a few copies of the movie clip in the same animation and animate them further. For example, you can move (motion tween) a burning candle.
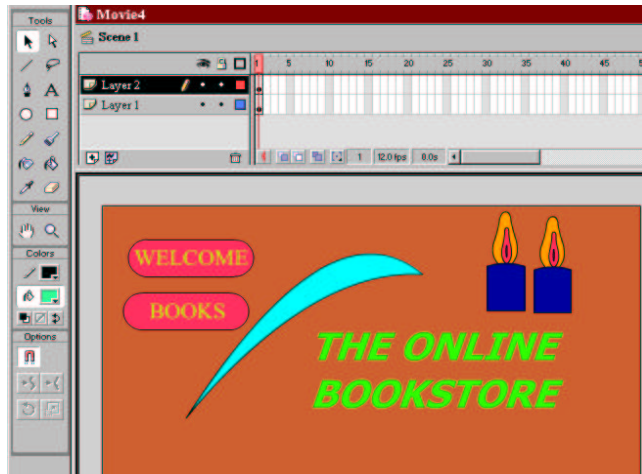
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Candle tab
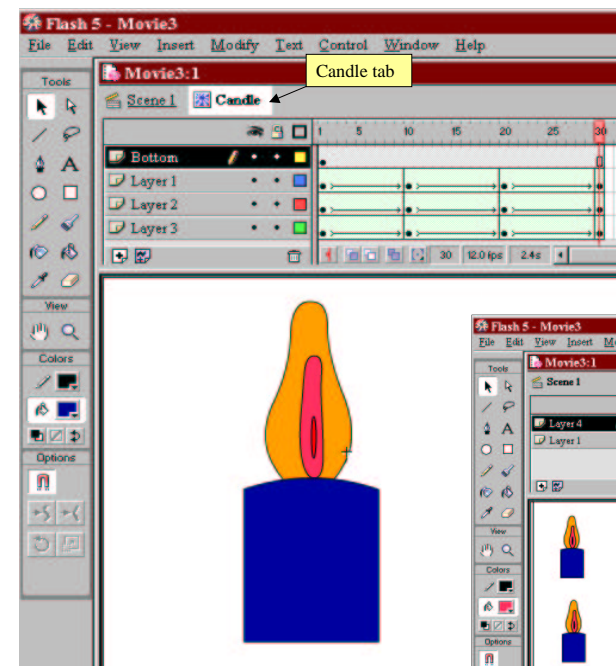
Here we create a symbol that animates a burning candle.

In Scene 1 it is possible to have several instances of this object.

Creating Buttons

Create a scene that looks like the following. If you wish you can make the title a movie clip that flashes.
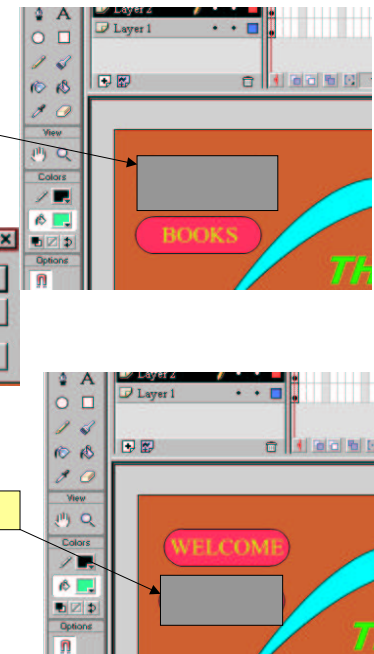
WELCOME
BOOKS
THE ONLINE BOOKSTORE

Using selection tool mark WELCOME and select Convert To Symbol from Insert menu.

Symbol Properties
Name: WelcomeButton
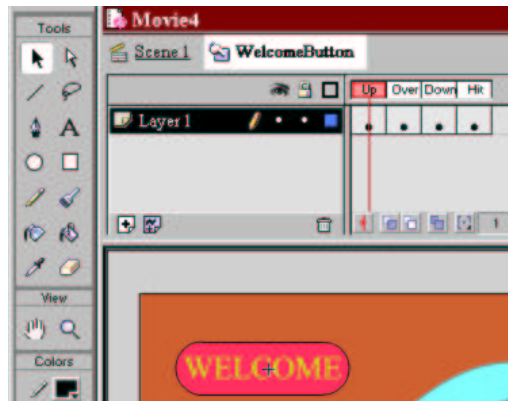Behavior: ○ Movie Clip ● Button ○ Graphic
OK Cancel Help

Choose the behaviour of the symbol as Button.

Do the same for BOOKS.

BOOKS
WELCOME

Choose the Welcome button, right click and select Edit In Place.

In the edit tab you can edit the shape, color etc. of the for Mouse up, over, down and hit events. Use F6 to copy the original button to these. Do the same for Books button.

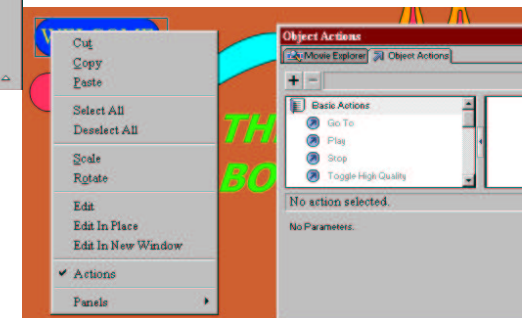When finished check publish preview to see the effects you have created.

WELCOME

Double click on frame 1. In the Frame Actions panel that appears choose stop to make sure that the animation is not played immediately.

Frame Actions
stop ();
Basic Actions
Actions
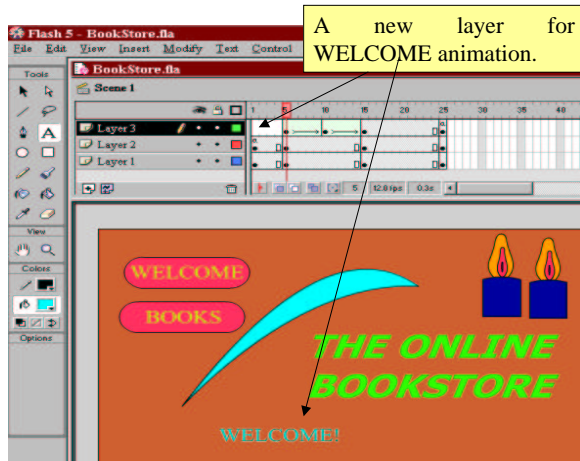break
call
comment
No action selected.
No Parameters.
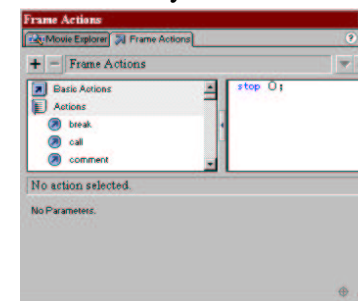
Right clicking on Welcome button select Actions panel.

Click on Goto action and change Frame to 5. The script should read smtg like

on (release) {gotoAndPlay (5);}

Cut
Copy
Paste
Select All
Deselect All
Scale
Rotate
Edit
Edit In Place
Edit In New Window
✔ Actions
Panels

Object Actions
Basic Actions
Go To
Play
Stop
Toggle High Quality
No action selected.
No Parameters.

Insert a new layer to your scene and edit this new layer such that an animation appears between 5th and 30th frames. For example, WELCOME – TO THE – BOOKSTORE text can be animated using the shape tween.

Similarly select Books button and set its actions so that when the mouse is released the page is linked to www.amazon.com (using getURL command).

A new layer for WELCOME animation.

Double click on 25th frame and in actions select Goto and play Frame 1.

When published if you press on Welcome button it will cause the animation to be executed.   25
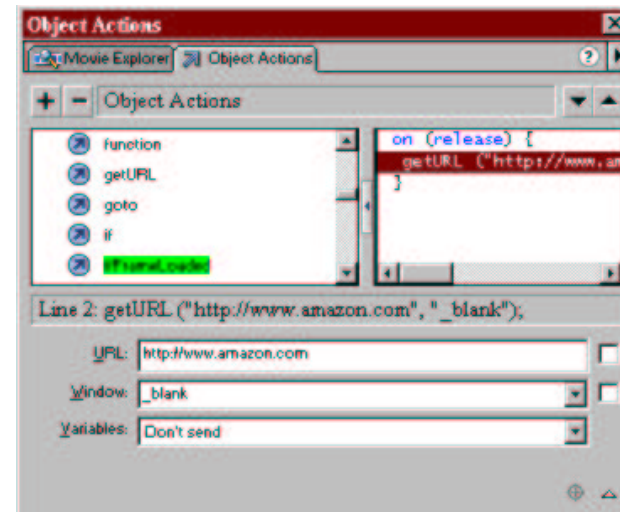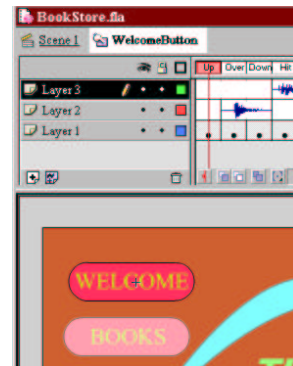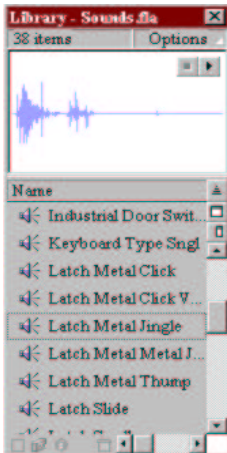

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Adding Sound

Start editing the Welcome button.

Add a new layer to edit.

Select Window – Common Libraries – Sound.

From the popup menu select Latch Metal Click and move an instance of this to Over frame of the button in layer 2. Similarly you can add Latch Metal Jingle sound for Hit frame.

Then, the Welcome button would give a sound for Mouse Over and Mouse Hit events.   27