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Courseware Release Version 5.0

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NOTION

Installing the Sample Files into a Folder

Installing the sample files

- Use the Windows Explorer to create a folder called Flash 5 Advanced Samples, just below the My Documents folder.
- Copy the sample files from the ECDL_Training\work\Flash-5-advanced folder to the My Documents\Flash 5 Advanced Samples folder.

NOTION

Frame Actions

To Create Frame Labels

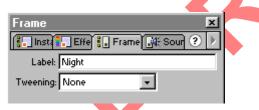
NOTE: If you have completed our Flash 5 Intermediate course, you can use the files you have created in the previous exercises. If you do not want to alter your original file, we have already done all the work for you, just use the sample file mexico17.fla located in the Flash 5 Advanced Samples Folder.

Start with the Original File:

- Use the Windows Explorer to create a folder called Flash 5 Advanced Work Folder, just below the My Documents folder.
- Locate and open your version of **mexico17.fla** file.

OR Start with the Sample File:

- Use the Windows Explorer to create a folder called Flash 5 Advanced Work Folder, just below the My Documents folder.
- Open the *mexico17.fla* from the Flash 5 Advanced Samples Folder.
- In this exercise we will begin the process of turning the Scene 1 from the day scenery into the night scenery.
- Insert a new Layer and name it "Labels".
- Select frame 1, open the Frame Panel and name the label "Day".
- Insert a keyframe at frame 10, labeling it "Night":

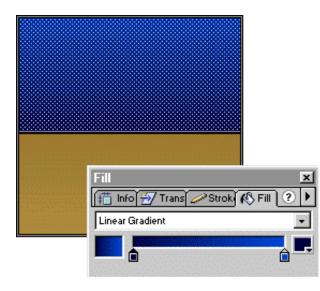


• Your timeline should now look like this:

교 Sky	•	• 🗆	•	0	0
🕝 Ground	•	•		0.	D
🕝 Labels	•	•	Day	▶Night	

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• Select the "Sky" shape on the stage and change the colors to a dark blue night color, using the **Fill Panel**:



- Then, select the "Ground" shape and change the colors to a darker brown.
- Just above the "Sun" layer, insert a new layer and name it "Moon".
- In the "Moon" layer, insert a keyframe at frame 10.
- Still in the frame 10, draw a full **"Moon"** circle shape; convert it to a graphic symbol and position it over the "Sun" symbol.
- Convert "Moon" to a button symbol named "Moon Button":

	+
	Name 🔺
	🎦 Mayan 📃
	🔄 Mayan Button
	🔄 Moon Button 🔽
🗾 🖅 Moon 🧳	• • •
🗗 Sun	•••

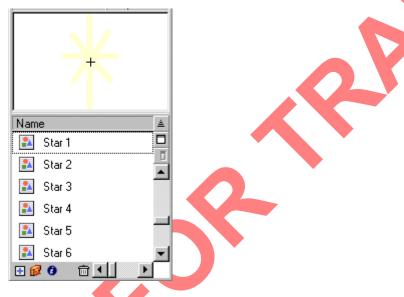
- Double click the "Moon Button" to edit symbol. In the Over button state, change the color of the "Moon" to a paler yellow.
- Add a sound to the Down button state.

Flash 5 Advanced

- Back on Scene 1, in the "Sun" layer, insert a blank keyframe at frame 10 (we don't want the "Sun" to be displayed in the "Night" scene).
- Insert a Frame at frame 30 on all layers, except the "Sun" layer.
- Use File > Save As to save the movie in your Flash 5 Advanced Work Folder.
- Save File as mexico18.fla
- Open the *mexico18.fla* from the Flash 5 Advanced Samples folder to see an example.

To Create Frame Actions

- Now you will create various stars, twinkling in the night sky.
- Still in the mexico18.fla file, just above the "Moon" layer, insert a new layer and name it "Star 1".
- Draw a small "star" shape, convert it to a graphic symbol and name it "Star 1":



- Insert five more layers, naming them "Star 2" through to "Star 6".
- Draw a "Star" shape in each layer, and convert each "Star" to a graphic symbol naming them "Star 2" through to "Star 6".
- Position each "Star" instance on the stage across the "Night" sky.
- Insert a keyframe at frame 30 on all layers, except the "Sun" layer.

6

• On each "Star" layer, insert keyframes at staggered intervals along the timeline and create motion tween in between them:

🕩 Star 6	•• 🗖	● >> ● >> ● >> ● >>> ● >>> ● >>> ● >>> ● >>>> ● >>>> ● >>>> ● >>>>>>
🕏 Star 5	•• 🗖	•>•>+=>+=>+++++++++++++++++++++++++++++
🕩 Star 4	•• 🗖	• >> • >> • >> • >> • >> • >> • >> • >
🕩 Star 3	•• 🔳	• >> • >> • >> • >> • >> • >> • >> • >
🕏 Star 2	•• 🗖	•>•>++++++++++++++++++++++++++++++++++
🗾 Star 1	🥖 • • 🗖	• >> • >> • >> •
🕩 Moon	•• 🗖	• 0•



• At each keyframe, using the **Transform Panel**, change the **Scale** of the "Star" instances so that the stars "twinkle":

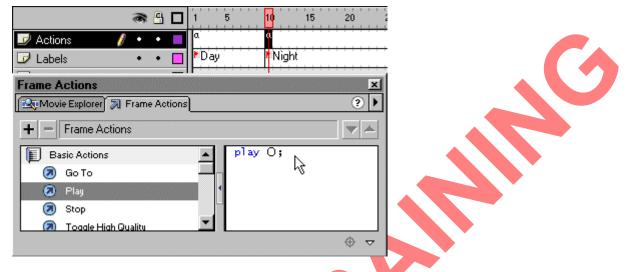
Transform	×
🟥 Infi 🆅 Transform 🥒 Str 🚯 Fill	? ▶
* 50.0% \$ 50.0% V Constra	in
C Skew 27 0.0"	
<u> </u>	9 🗄

- At the top of the layer list, insert a new layer named "Actions".
- Open the Actions Panel (Window > Actions).
- Insert a keyframe at frame 1 of the "Actions" layer.
- In the **Toolbox List**, double click on Basic Actions book, and then double-click **Stop** action. The action script syntax will appear in the right hand window:

	🕽 🛱 🗖 🧴 5 10 15	20 2
	🗾 Actions 🥖 • • 🗖 🍟 🧧	
	□ Labels • • □ Day Night	
,	Frame Actions	×
	🕰 Movie Explorer 🔊 Frame Actions	?►
	+ Frame Actions	V
	Basic Actions stop O;	
	Go To M	
	Play	
	Stop	
	🔊 Toggle High Qualitu	~
		⊕ ⊽

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- Now insert a keyframe at frame 10 of the "Actions" Layer.
- In the **Toolbox List**, double-click on **Play** action:



- Still on the same layer, insert a keyframe at frame 30 and double-click **Go To** action.
- Enter "10" in the Frame box. Make sure that Go to and Play is checked (this will loop the "Night" scene from frame 10 to frame 30 continuously):

	1	9 🗖 1	5	10	15	20	25	3(
✓ Actions ✓ Labels	/ ·	• 🗖 🗖		a ►Nigł	+ + + + + + + + + + + + + + + + + + +			d
Frame Actio	ins		r 		к - - - - - -	<u>.</u>	z	
1 1	lorer 🔊 Frame	Actions				?		h.
+ - Fran	ne Actions ctions	_	go	toAndPla	ay (10)	;	1	
Go Go			•	ĥ	5			
No action se	۱	•					-	
Scene:	<current scene=""></current>						1	
	Frame Number							
	Go to and Pla	ay						
						≙ ⊕		

- Save File as mexico19.fla
- Open the *mexico19.fla* from the Flash 5 Advanced Samples folder to see an example.

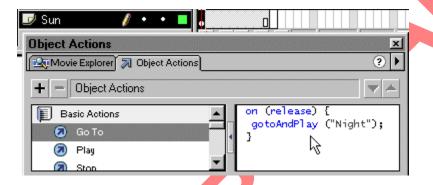
NOTION

Flash 5 Advanced

Button Actions

To Assign Actions to a Button Symbol

- Now we will assign actions to the "Sun" and "Moon" buttons.
- Still in the mexico19.fla file, select the "Sun" button on the stage and open the Actions Panel.
- In the Toolbox List, open the Basic Actions book and double-click the On Mouse Event action. Note that the default on (release) script is inserted.
- Now, double click on **Go To** action.
- In the Parameters Area, select Frame Label and choose "Night" label.
- Ensure the Go to and Play box is checked:



• In frame **10** of the "Moon" layer, select the "Moon" button on the stage.

		0	
	X		
~			

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• Assign the **Go To** actions with "**Day**" frame label. Uncheck the **Go to and Play** box:

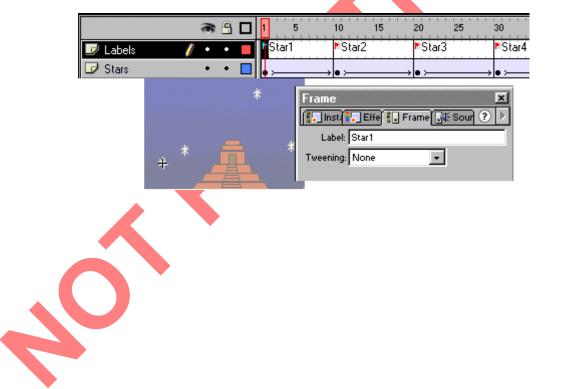
🖅 Moon 🥖 • • 🔳	
Object Actions	×
Movie Explorer 🔊 Object Actions	••
+ - Object Actions	
Basic Actions on (release) {	
Go To gotoAndStop ("Day");	
🔊 Play	
Line 2: gotoAndStop ("Day");	
Line 2. gotdAndstop (Day),	
Scene: <pre><current.scene></current.scene></pre>	
Type: Frame Label	·
Frame: Day	*
📕 Go to and Play 📐	
h3	

- Test the Movie. The movie will stay still until you click on the "Sun" button, then it will display the "Night" scene with the "Star" animation. "Night" scene will loop continually until the "Moon" button is clicked and the scene returns to "Day".
- Save File as mexico20.fla
- Open the *mexico20.fla* from the Flash 5 Advanced Samples folder to see an example.

Movie Clip Actions

To Assign Actions to a Movie Clip Symbol

- Now we will create the "Star" animation in a different way by adding it to a Movie Clip, and therefore reducing the overall file size.
- Open the **mexico18.fla** again.
- Insert a Frame at frame 20 in all layers, except the "Sun" layer.
- Open as Library the mexico20.fla file. Drag the "Star 1" graphic symbol from the mexico20.fla Library into the mexico18.fla Library. Now you have a "Star 1" symbol in your current Library.
- Rename the symbol to "Star".
- Create a New Movie Clip Symbol named "Star Movie".
- Double click the "Star Movie" in the Library to edit symbol. Name the default layer "Stars".
- At frame one, drag the "Star" graphic symbol onto the stage.
- Insert a keyframe in frames 10, 20, 30, 40, 50 and 60,
- Insert a new layer named "Labels" and insert keyframes to match the "Stars" layer.
- At frame 1, using the **Frame Panel**, name the **Label** "Star1". Continue naming each of the following keyframes "Star 2" to "Star 6":



In the "Stars" layer, in each keyframe (1-10-20-30-40-50), using the Transform Panel, • change the scale (constrained) of the "Star" instances. Also, using the Effects Panel, change the Alpha or Brightness values to make the "Star" twinkle:

Transform		×
🟥 Infi 🛃 1	Fransform 🥖 Str	🚯 Fill 😢 🕨
+ 50.0%	\$ 50.0%	Constrain
 Rotate 	⊿ 0.0'	
C Skew	27 0.0	0.01
		æ 🗄

Example:

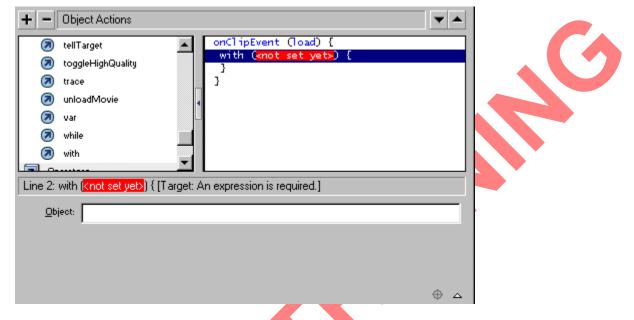
Star1	scale=100%	alpha=50%
Star2	scale=20%	alpha=100%
Star3	scale=75%	alpha=60%
Star4	scale=40%	bright=80%
Star5	scale=100%	alpha=60%
Star6	scale=30%	bright=60%

- Insert Motion Tweens in between keyframes, •
- Return to the main timeline.
- Insert a new layer and name it "Stars":

	۵ 🖁 🍘	1 5	10	15	20
🕏 Moon	•• •		•		
🕩 Stars	•• 🗖		•		
🕏 Sun	•• 🗖	•			

- With this as the active layer, drag six (6) "Star Movie" movie symbols onto the stage and place them across the "Night" sky.
- Select each "Star" instance in turn, and using the Instance Panel, name each one "Star1" to "Star6".
- Select "Star1" instance and open the Actions Panel. Open the Actions book and doubleclick the OnClipEvent action (Note that the default onClipEvent (load) action will be automatically inserted).
- Double-click the with action. Notice that the parameters will be highlighted in red.

Click on the Insert a Target Path icon at the lower right corner of the Panel (Blue "cross-hair" icon). If the cross-hair icon is grayed out, make sure that your cursor is inside the Objects field:



- This will bring up the **Insert Target Path** window. In order to see all the instances in your movie, make sure that you select **Dots** and **Absolute**.
- Now you should see the list of "Star" instances.
- Double-click the "Star" in the list (e.g. Star1):

_root	<u> </u>	OK
Star1		Cance
Star2	.	Cance
📧 Star3	Þ	
Target: _root.Star1		
Notation: 💿 Dots	Mode: C Relative	Help

- This will automatically add the full path of that instance to the with action.
- With the action still highlighted, double-click **Go To** action in the Basic Actions book. This will add the **gotoAndPlay** script.

• Under Type, select Frame Label, and under Frame, enter "Star1":

Object Actions x	1
🕰 Movie Explorer 🔊 Object Actions 📀 🕨	
+ - Object Actions	
Basic Actions onClipEvent (load) {	
Go To with Croot.Star1) { gotoAndPlay ("Star1");	
Play	
Stop 3	
Line 3: gotoAndPlay ("Star1");	
Scene: <current scene=""></current>	
Type: Frame Label	
Frame: Starl	
🔽 Go to and Play 🛛 😽	
ب ا	

- Repeat the above for all remaining "Star" instances on the stage, each time changing the Frame Label name. Example: "Star2" instance will gotoAndPlay ("Star2") frame label, etc.
- In the main timeline, insert a new layer and name it "Actions":

		æ	8	1 5	10 15	20
🗾 Actions	Ø	٠	٠	a	a	a
🕏 Labels		٠	٠	•Day	[™] Night	

- In frame 1, add stop (); action.
- In frame 10, add play (); action.
- In frame 20, add gotoAndPlay (10); action.
- On the stage, select the "Sun" button.



• In the Actions Panel, add On Mouse Event (release) and gotoAndPlay ("Night") actions:

Object Acti	ons	×	
🕰 Movie Exp	olorer 🔊 Object Actions	?)	
+ - Obj	ect Actions	▼ ▲	
 Tell If Fr On I Actions 	on (release) { gotoAndPlay ("Night"); AndPlay ("Night");		
<u>S</u> cene:	<current scene=""></current>		
<u>T</u> ype:	Frame Label		
<u>F</u> rame:	Night		
	Go to and Play	⊕ _	

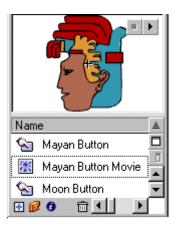
- On the stage, select the "Moon" button.
- In the Actions Panel, add the On Mouse Event (release) and gotoAndPlay ("Day") actions.
- Test the Movie. Same as in the previous exercise, the movie will stay still until you click on the "Sun" button, then it will display the "Night" scene with the "Star" animation. "Night" scene will loop continually until the "Moon" button is clicked and the scene returns to "Day". Only this time we didn't need to create separate "Star" animations, but instead we have used (and re-used) one movie clip for all the stars.
- Save File As mexico21.fla
- Open the *mexico21.fla* from the Flash 5 Advanced Samples folder to see an example.

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Flash 5 Advanced

To Create a Draggable Movie Clip

- In this exercise, we will create a draggable movie clip using the "Mayan" button, to enable the user to drag and drop the "Mayan" Button anywhere on the stage.
- Still in the mexico21.fla file, click on the "Mayan" button on the stage and convert it to a Movie Clip Symbol. Name it "Mayan Button Movie":



- Double-click the "Mayan Button Movie" instance on the stage to Edit Symbol.
- Now select the "Mayan Button" instance (inside the "Mayan Button Movie" timeline) and open the Actions Panel.
- Double-click the On Mouse Event in the Basic Actions book. Check Press and uncheck
 Release event:

	Object Actions	×
[🕰 Movie Explorer 🔊 Object Actions	?▶
	+ - Object Actions	▼ ▲
	 If Frame Is Loaded On Mouse Event 	n (press) {
	Line 1: on (press) {	
	Release I Ro	ll Over Il Out 1g Over 1g Out
		⇔ △
	•	

• Double-click **startDrag** in the Actions book, and enter the **Constrain** parameters. (Note: Use the **Info Panel** to find out the L = Left, R = Right, T = Top and B = Bottom constrain values):

Object Actions 🔀	
🖳 Movie Explorer 🔊 Object Actions	
+ - Object Actions	
<pre> Basic Actions Actions Actions Actions Actions actions actions call call comment Line 2: startDrag ("", true, 0.00, 0.00, 549.0, 396.0); </pre>	
Target: Expression	
Constrain to rectangle L: 0.00 B: 549.0	
Look mouse to center T: 0.00 B: 396.0	
⊕ △	

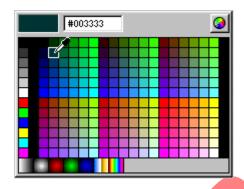
- Check Lock mouse to center.
- Add another **On Mouse Event** in Basic Actions, leaving the default **Release** as checked.
- Double-click **stopDrag** in Actions.
- Test the movie. The "Mayan" object can now be dragged and dropped anywhere within the stage.
- Save File As mexico22.fla.
- Open the *mexico22.fla* from the Flash 5 Advanced Samples folder to see an example.

NOTION

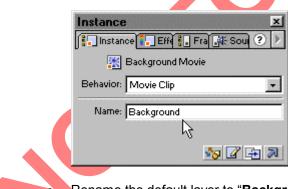
Programming With ActionScript

To Set Movie Clip Properties

- Now we will create a new Flash movie where we can put into practice some powerful Actions, like changing the object transparency.
- Create a new movie and name it "quiz1.fla".
- This movie should have the same properties as our Mexico movies: 12 fps, W = 550 pix, H = 400 pix, and white background color.
- Create new movie clip symbol named "Background Movie".
- In the Edit Symbol mode, set fill color to dark green:



- Draw a large green rectangle to be used as the background image for our movie (W = 550, H = 400).
- Place the instance of this symbol onto the Stage and center it. Note: This clip should totally cover the white background of the Stage.
- Name this instance "Background":



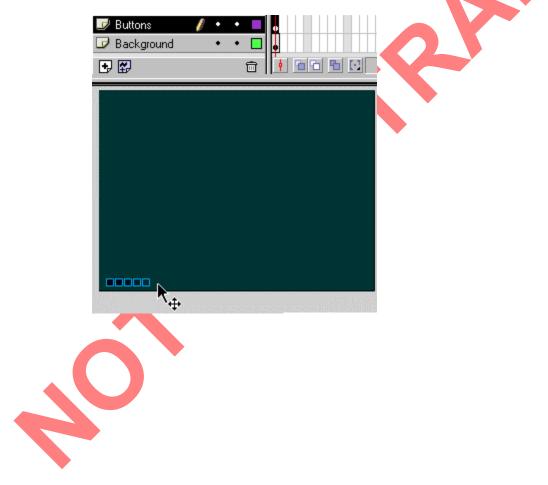
- Rename the default layer to "Background".
- Insert a new layer and name it "Buttons".
- Create new button symbol and name it "Background Button".

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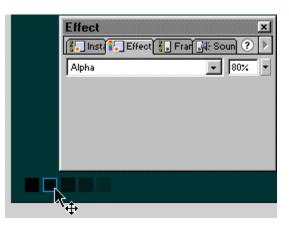
• In the Edit Symbol mode, draw a small black square (W = 13.5, H = 13.5):

🖆 <u>Scene 1</u>	🔄 Background Button		
	a 🗄 🗖 🗖	Up Over Down Hit	
🗾 Layer 1	/ · · 🔳	•	
🗗 😰	± 1	🚹 🔂 🔂 📝 1 12.0 fps 0.0s	
	1.0		
		nfo 🛃 Transfo 🖉 Stroke 🚯 Fill 🧿	
	۲	Shape	
	£	V 125	
	*	- H: 13.5 800 Y: 0.0	

• Select "Buttons" layer and place five instances of this symbol to the Stage. Position them in the bottom left corner:



- Change the Alpha Effect of button instances as follows: Button 1 = Alpha 100%
 - Button 2 = Alpha 80%
 - Button 3 = Alpha 60% Button 4 = Alpha 40%
 - Button 5 = Alpha 20%:



You will now have five buttons with different levels of transparency:



 Select first button and open the Actions Panel. From the Basic Actions, double-click the On Mouse Event action. Check the Release and Roll Over events:

Object Actions	× ?
+ - Object Actions	▼ ▲
If Frame is Loaded On Mouse Event Actions	
Line 1: on (release, rollOver) {	
Event: Press Press Roll Over Release Roll Out Release Dutside Drag Over Key Press: Drag Out	
	⇔ △

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- From the Actions, double-click the setProperty action. You will notice that the warning will • show on the script line:

	Actions		×	
Movi	e Explorer 🔊 Object Actions		? Þ	
+ -	Object Actions		▼ ▲	
	print	on (release, rollOver) {		
	removeMovieClip	setProperty ("", <mark><not mark="" s<=""> }</not></mark>	et yet> <mark>,</mark> "");	
0	return	, 13		
	set variable 🔹 🔒			
0	setProperty			
8	startDrag			
	stop	•		
Line 2:	setProperty ("", <mark><not set="" yet=""></not></mark> , "");			
Prop	ertų:	-	1	
	get:		Expression	
	lue:		Expression	
	····)		, Enpression	
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			ΨΔ	
	operty, select _alpha (Alpha	a):		
Under Property: Target: Value:	_alpha (Alpha) _alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality)			
Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality (_quality)			
Property: Target:	_alpha (Alpha) alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality (_quality) _rotation (Rotation) _soundbuftime (Sound buffer time)			
Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality (_quality) _rotation (Rotation) _soundbuffime (Sound buffer time) _visible (Visibility) _width (Width)			
Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality (_quality) _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Widthl) _x(X Position) _xscale (X Scale)			
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Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality (_quality) _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Widthl) _x(X Position) _xscale (X Scale)			
Property: Target: Value:	_alpha (Alpha) alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _name (Name) _quality (_quality) _rotation (Rotation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _xscale (X Scale) _y (Y Position)	\$		
Property: Target: Value: Enter the	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality _quality) _rotation (Rotation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _x (X Position) _xscale (X Scale) _y (Y Position) _yscale (Y Scale)	\$		
Property: Target: Value: Enter the	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality [_quality] _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _x(SPosition) _xscale (X Scale) _y(Y Position) _ycale (Y Scale) _such (Y Scale) _start field and click the Inst	sert a target path icon:	Expression	
Property: Target: Value: Enter the Property:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality [_quality] _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _x(SPosition) _xscale (X Scale) _y(Y Position) _ycale (Y Scale) _such (Y Scale) _start field and click the Inst	sert a target path icon:	Expression Expression	
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Property: Target: Value: Enter the Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality [_quality] _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _x(SPosition) _xscale (X Scale) _y(Y Position) _ycale (Y Scale) _such (Y Scale) _start field and click the Inst	sert a target path icon:		
Property: Target: Value: Enter the Property: Target:	_alpha (Alpha) _focusrect (Show focus rectangle) _height (Height) _highquality (High quality) _name (Name) _quality [_quality] _rotation (Botation) _soundbuftime (Sound buffer time) _visible (Visibility) _width (Width) _x(SPosition) _xscale (X Scale) _y(Y Position) _ycale (Y Scale) _such (Y Scale) _start field and click the Inst	sert a target path icon:	Expression	et nath

• In the **Insert Target Path** window, select the **Background** instance. Note: The **_root** will be automatically added to the full path, presenting the root of the current movie:

Insert Target Path		
Incot	OK Cancel	G
Target: _root.Background	Help	
Notation: © Dots Mode: © Relative © Slashes © Absolute		

• Under Value, enter 100. This will make the Background clip 100% Alpha, meaning non-transparent:

Object Actions	×
🕰 Movie Explorer 🔊 Object Actions	() ()
+ - Object Actions	▼ ▲
removeMovieClip on (release, rollover) {	
setProperty ("_root.Background", _a]	pha, "100");
Set variable	
🔕 setProperty	
startDrag	
🔕 stop 🔽 📢	F
Line 2: setProperty ("_root.Background", _alpha, "100");	
Property: _alpha (Alpha)	1
Target: _root.Background	Expression
Value: 100	Expression
\mathbf{k}	
	⊕ △

Now repeat the same process for the rest of the buttons, changing only the **Value** to **80**, **60**, **40**, and **20** respectfully. Note: You can copy and paste the script, then change the Value. Test the movie. When you roll the mouse over the buttons, the background transparency will change:



- Save File As quiz1.fla.
- Open the *quiz1.fla* from the Flash 5 Advanced Samples folder to see an example.

Flash 5 Advanced

To Create the Input Text

- In this exercise, you will start working with variables. We will create the form with input fields to gather the information from the user.
- Still in the quiz1.fla file, insert the new layer just above the "Background" layer and name it "Images".
- We have prepared the artwork for you in order to speed up the exercises. From the File menu, select Open as Library and open Artwork.fla file from the Flash 5 Advanced Samples folder.
- Drag the "man1" graphic symbol from the Artwork Library onto a Stage, and position it on the top left side:



- Now insert a new layer above the "Images" layer, and name it "Text".
- In the "Text" layer, using the large, bold, white font, type the title "Quiz about Mexico", and position it on the top right side of the Stage.
- Then type some information, using smaller white font: "First, we would like to know more about you. When you finish typing the information, click on the hand icon to continue..." like this:



 Using the Text Options Panel, insert an Input Text box. For the Variable name enter "First". For the Embed fonts select upper and lower case characters. This will be a field where users will enter their first name. Type the "First name" label beside the Input Text field:

	Text Options				
First, we woul	Input Text Single Line Variable:	HTML Border/Bg			
When yo click	First Embed fonts:	Max. Chars: 20			
First name					

 Using the same procedure, create another Input Text box, and enter "Last" for the Variable name.

 Now create another Input Text box and enter "Age" for the Variable name. This time for the Embed fonts select only numbers:

First, we woul	Text Options	tt Options 🕐 🕨	
When yo click	Input Text	-	
	Single Line 💌	F HTML Border/Ba	
First name	Variable: Age	-	
	Embed fonts:	Max. Chars: 3	
Last name	[] Az az 123 0 !		
Age			

- Save File As quiz2.fla.
- Open the *guiz2.fla* from the Flash 5 Advanced Samples folder to see an example.

To Create the Dynamic Text

- Now you will display the text that the user has inputted earlier.
- Still in the quiz2.fla file, at the top of the layer list, insert a new layer and name it "Navigation".
- Open as Library the Artwork.fla file.
- From the Artwork Library, drag the "**Hand Button**" symbol onto the Stage. Position the button at the bottom right corner of the Stage.
- Now insert a new layer and name it "Labels".
- In the "Labels" layer, at frame 1, insert a Frame Label "Start".
- Insert another layer and name it "Actions".
- In the "Actions" layer, at frame 1, insert a **stop ();** action.
- At frame 10, insert Keyframes for each layer.

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- In the "Labels" layer, at frame 10, insert a Frame Label "2nd".
- In the "Buttons" layer, at frame 1, select the "Hand Button" instance and add the gotoAndStop ("2nd"); action. Make sure that the Go to and Play option is un-checked:

Object Acti	ons plorer 🔊 Object Actions	× ?	
+ - Obj	ect Actions	▼ ▲	
Basic A	To gotoAndStop ("2nd");		
Line 2: goto	AndStop ("2nd");		
Scene:	<ourrent scene=""></ourrent>	-	
Type:	Frame Label	-	
Frame:	2nd	-	
	Go to and Play	⊕ △	

- In the "Images" layer, at frame 10, delete the "man1" instance from the stage and replace it with the "man3" graphic symbol from the Artwork Library.
- In the "Text" layer, at frame 10, change title text to "Quiz Results".
- Still in the "Text" layer, at frame 10, delete the information text, all input text boxes and labels.
- Using the **Text Options Panel**, insert a **Dynamic Text** box. For the **Variable** name enter "**NameCalc**". For the **Embed fonts** select upper and lower case characters and numbers. Make sure that you have checked **Word wrap** option. This will be a field where the user's name and age will be displayed:

	Quiz Results		_1
		Text Options A Chara Parage Parage	
	k} €	Multiline ▼ HTML Variable: □ Border/Bg NameCalc ✓ Vord wrap Embed fonts: □ Selectable [] Az ^a z 123	
~~			

In the "Actions" layer, at frame 10, insert the set variable action. Under Variable enter the Dynamic Text variable name from the previous step, "NameCalc". Under Value, enter the following: "Your name is "+First+" "+Last+", and you are "+Age+" years old." Make sure that the Expression option is checked:

Actions / • • •	
Frame Actions 🛛 🕹	
🕰 Movie Explorer 🔊 Frame Actions 📀 🕨	
+ - Frame Actions	
return NameCalc = "Your name is "+First+" "+La	
🔕 set variable 🔤 🖌	
SetProperty	
Line 1: NameCalc = "Your name is "+First+" "+Last+", and you are "+Age+" years old.";	
Variable: NameCalc Expression	
Value: "Your name is "+First+" "+Last+", and you are "+Age+" years old."	
, ,	
	•

- Test the movie. Enter your data in the form and click on the hand button. This will take you to the results page with your data displayed on the stage.
- Save File As quiz3.fla.
- Open the *quiz3.fla* from the Flash 5 Advanced Samples folder to see an example.

To Write Scripts Using the Dot Notation

- In this exercise you will change your script code to be more efficient and shorter.
- Still in the **quiz3.fla** file, in the "Buttons" layer, select the first button and open the Actions Panel.
- The button action looks like this:

```
on (release, rollOver) {
   setProperty ("_root.Background", _alpha, "100");
}
```

• Now, enter the Expert Mode in the Actions Panel:

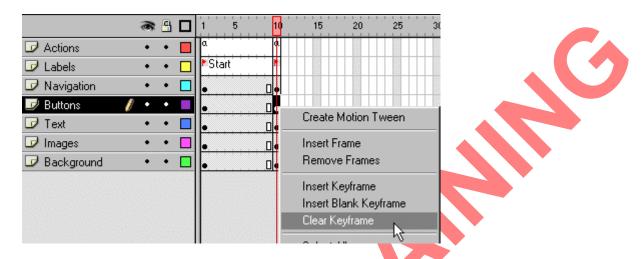
× • •	
🖉 🗸 Normal Mode	Ctrl+N
Expert Mode	Ctrl+E

• Select the **setProperty...** script line and rewrite the script using the **Dot Notation** style:

```
on (release, rollover) {
    _root.Background._alpha = 100;
}
```

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• Repeat the same process for all buttons changing only the alpha values to 80, 60, 40, and 20 respectfully.



• Still in the "Buttons" layer, select the frame 10, and Clear Keyframe:

- Repeat the same step for the "Background" layer. All other layers will stay the same, with Keyframes at frame 10. Note: Removing the un-necessary Keyframes from your movie, will save the file size.
- Test the movie. The movie will work same as before, but now the code is much shorter. Using the Dot Notation will reduce the lines of code, therefore reducing the computer processing and speeding up the movie playback.
- Save File As quiz4.fla.
- Open the quiz4.fla from the Flash 5 Advanced Samples folder to see an example.

Smart Clips

To Add Radio Button Smart Clips

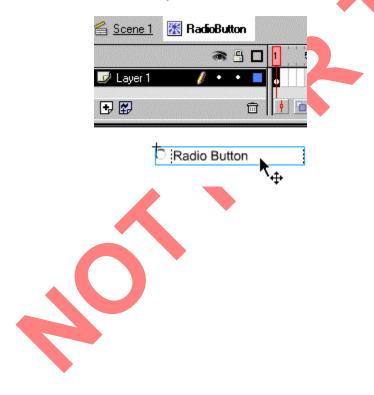
- In this exercise, you will create a multiple choices quiz using the Radio Button smart clips.
- Still in the **quiz4.fla** file, in the "Labels" layer, insert a keyframe at frame 5.
- Label that frame "1st".
- In the "Images" layer, insert a keyframe at frame 5.
- Still in the "Images" layer, at frame 5, delete the "man1" instance from the stage and replace it with the "man2" graphic symbol from the Artwork Library.
- In the "Text" layer, insert a keyframe at frame 5, and delete all existing text from this frame.
- Open the Smart Clips Common Library (Window > Common Libraries > Smart Clips).
- Select "RadioButton" smart clip from the Smart Clips Library, and drag it to the current movie Library:

Library - Smart Clips.fla 22 items Options	
b Radio Button	
Name ≜	
Smart Chip Assets	1
Close the Smart Clips Lib	rary.

• Now we need to change the "RadioButton" movie clip properties to fit our movie. From the current movie Library double-click the "**RadioButton**" to Edit Symbol:

	ary - quiz5.fla	×
10 it	ems	Options /
t i	Radio Button]
Nam	e	à
2	man1	
2	man2	
2	man3	
	RadioButton	
*	RadioButton as	ssets
🛨 ք	0 🖬 🚺	▼

• In the Edit Symbol mode, double-click the "Radio Button" again to edit:



• Inside the "**RadioButton assets**" edit mode, select each asset and change its text properties to white color, bold type, size 14:

 Go back to the Scene 1, still in the "Text" layer, at frame 5, drag the "RadioButton" symbol 	
 Win assets I 120 fps 0.0s Radio Buttor A Character Farage A Text Op ? Font sans A 1 14 I I I I I I I I I I I I I I I I I	
 Character Paragrille Text (fill color) Character Paragrille Text (fill color) At 14 THE Paragrille Text (fill color) At 14 THE Paragrille Text (fill color) So back to the Scene 1, still in the "Text" layer, at frame 5, drag the "RadioButton" symbol 	
 Radio Button Font: sans At 14 Font: sans At 14 Font: sans At 14 Font: sans Font: sans At 14 Font: sans Font: sans<	
 Go back to the Scene 1, still in the "Text" layer, at frame 5, drag the "RadioButton" symbol 	
 from the current movie Library to the Stage. Name this symbol instance "City1". With the "City1" instance still selected, open the Clip Parameters Panel and enter the following values: name = City1 checked = false label = Mexico City style = Win 	
Clip Parameters X Image: Clip Parameters Image: Clip Parameters Name Value _name Clity1 _checked false Iabel Mexico Clity style Win	
 Copy and paste this instance. Then rename the pasted instance to "City2". Change the "City2" Clip Parameters to: name = City2 checked = false label = Cancun style = Win Select and align these two instances, and convert them to a movie clip symbol named "City Radio Movie". 	

- Name this new instance "CityRadio". Note: This is now a parent instance to the "City1" and "City2" instances. We can call these two instances child instances. In the Dot Notation they would be presented like CityRadio.City1 and CityRadio.City2.
- Using the white, bold text, type the quiz question "What is the capital city of Mexico?" Position it just above the radio buttons:

What is the capital city of Mexico' Radio Button Radio B u tton		
Instance		
Behavior: Movie Clip Name: CityRadio	- 	

 Now repeat the same process for another question "What is the currency used in Mexico?" with the following changes:

1st radio button instance name = "**Currency1**" Clip Parameters: name = **Currency1**, checked = **false**, label = **Peso**, style = **Win** 2nd radio button instance name = "**Currency2**" Clip Parameters: name = **Currency2**, checked = **false**, label = **Dollar**, style = **Win** Convert these to a movie clip named "**Currency Radio Movie**" Name this instance "**CurrencyRadio**"

• Repeat the same process for the third question "What language is spoken in Mexico?" with the following changes:

1st radio button instance name = "Language1" Clip Parameters: name = Language1, checked = false, label = English, style = Win 2nd radio button instance name = "Language2" Clip Parameters: name = Language2, checked = false, label = Spanish, style = Win Convert these to a movie clip named "Language Radio Movie" Name this instance "LanguageRadio" Repeat the same process for the fourth question "What is the population of Mexico?" with the following changes:

1st radio button instance name = "Population1" Clip Parameters: name = Population1, checked = false, label = 100,000,000, style = Win 2nd radio button instance name = "Population2" Clip Parameters: name = Population2, checked = false, label = 50,000,000, style = Win Convert these to a movie clip named "Population Radio Movie" Name this instance "PopulationRadio" • Your final quiz questions should look like this:



- Save File As quiz5.fla.
- Open the *quiz5.fla* from the Flash 5 Advanced Samples folder to see an example.

To Program Radio Buttons

• In this exercise, you will calculate and display the quiz results.



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• Still in the **quiz5.fla** file, in the "Actions" layer, at frame 1, add the **evaluate** script and in the **Expression** field enter **Score = 0**. This will create and set the variable **Score** to 0. This variable is used to keep the count of the correct answers to the previously created questions:

Frame Actions	× • •
+ - Frame Actions	
<pre> else if stop O; score = 0; </pre>	
Ø for ▼ Line 2: Score = 0;	
Expression: Score = 0	
	⊕ △

- In the "Navigation" layer, insert a keyframe at frame 5.
- Still in the "Navigation" layer, go back at frame 1, select "Hand Button" instance and change the action script to go to and stop at new frame label "1st". This will take the user from the introduction screen (labeled "Start"), to the quiz questions screen (labeled "1st"):

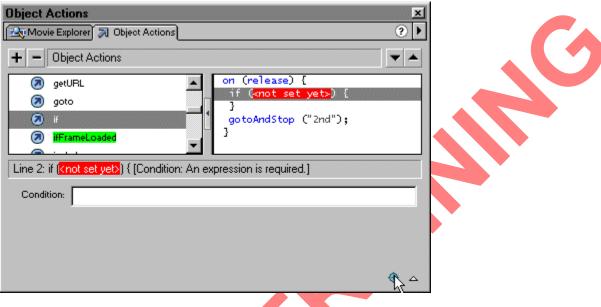
on (release) {
 gotoAndStop ("1st");
}

• Now go back at frame 5 and select "Hand Button" instance. Here we go to the quiz results screen (labeled "2nd"). However, before you can go to quiz results page, you will need to check if the user has answered the questions correctly, and for every correct answer, you will add one point to the "Score" variable. The correct answers to the questions are as follows:

Capital City = Mexico City (parent instance CityRadio, child instance City1) Currency = Peso (parent instance CurrencyRadio, child instance Currency1) Language = Spanish (parent instance LanguageRadio, child instance Language2) Population= 100,000,000 (parent instance PopulationRadio, child instance Population1)

The current button action script looks like this:

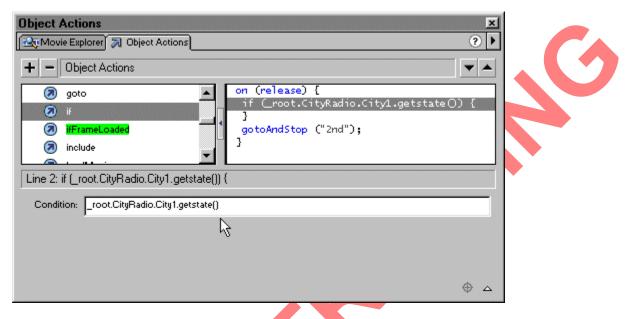
on (release) { gotoAndStop ("2nd"); • Highlight the first line of the script **on (release) {** and add the **if** action. This will give you the warning that condition is not set yet. Click on the **Insert a target path** icon to select the first target for the conditional statement:



• In the Insert Target Path window, select the instance City1:

Insert Targe	et Path			
oor_ 🕅	t		X	OK
🌃	Background			Cancel
Ė… X	CityRadio			
	🧱 City1			
i	- 🔣 City2 🧏			
			<u>}</u>	
Target:	_root.CityRadio.City1	_		
				Help
Notation:	Dots	Mode:	C Relative	
	C Slashes		Absolute	

• Now, in the **Condition** field, type the additional **getstate()** action. Make sure that you type the **dot** symbol between the target and the function. This action will return **True** if the target was selected, meaning if that radio button choice was checked by the user:



• Now, add the evaluate action and in the Expression field enter Score = Score+1. This will add one point to the score if the user has answered this question correctly:

<pre> score = score+1; gotoAndStop ("2nd"); Line 3: Score = Score+1; </pre>	<pre> evaluate for for</pre>	Object Actions Object Actions Object Actions object Actions else else if	on (release) { if (_root.CityRadio.City1.getstate())
		Ø for Line 3: Score = Score+1;	Score = Score+1; } gotoAndStop ("2nd"); }

• Using the Expert Mode, edit the rest of the script to look like this:

```
on (release) {
    if (_root.CityRadio.City1.getstate()) {
        Score = Score+1;
    }
    if (_root.CurrencyRadio.Currency1.getstate()) {
        Score = Score+1;
    }
    if (_root.LanguageRadio.Language2.getstate()) {
        Score = Score+1;
    }
    if (_root.PopulationRadio.Population1.getstate()) {
        Score = Score+1;
    }
    gotoAndStop ("2nd");
}
```

 In the "Text" layer, go to frame 10 and create another Dynamic Text box. Name the Variable "ScoreCalc". This field will be used to display the quiz results. Make sure that the Word wrap option is checked. Position this text box under the "NameCalc" box:

	Quiz Results	
ĺ	Text Options X A Chara Parag A Text Options Parag Dynamic Text Image: Compare the second secon	
	k _⊕	
~		

10

Next step is to populate the "ScoreCalc" variable with the quiz results. First we have to check
what is the total "Score", meaning how many questions the user has answered correctly.
Then, based on the "Score" value, we will display the appropriate message. The maximum
score for 4 questions is 4; the minimum score is 0. In the "Actions" layer, at frame 10, edit
the script to look like this:

```
NameCalc = "Your name is "+First+" "+Last+", and you are "+Age+" years old.";
if (score = 4) {
  ScoreCalc = "Your score is "+score+". Congratulations!";
} else if (score = 3) {
  ScoreCalc = "Your score is "+score+". You did pretty good!";
} else if (score = 2) {
  ScoreCalc = "Your score is "+score+". You could do better!";
} else if (score = 1) {
  ScoreCalc = "Your score is "+score+". You need to read more about Mexico!";
} else {
  ScoreCalc = "Your score is "+score+". You must go back to school!";
}
```

- Test the movie. Enter your name and age in the introduction screen; click the hand button to go to the next page. Select your answers in the quiz questions screen and click the hand button to see the results. Your name, age and score information will be displayed.
- Save File As quiz6.fla.
- Open the quiz6.fla from the Flash 5 Advanced Samples folder to see an example.

Modular Movies

To Insert Another Scene

- In this exercise, you will insert another Scene in the movie. This scene will be used in the later exercises.
- Open the mexico22.fla file.
- Insert a new Scene to your movie (**Insert > Scene**).
- Open the Scene Panel (Window > Panels > Scene).
- Rename "Scene 1" to "Main".
- Rename the new "Scene 2" to "Links":

Scei	ne			×
16	Scene			?
1	Main			
6	Links			
L				- 1
L				- 1
			+	Û

- Using the Scene Button, return to the "Main" scene.
- Select the "Cactus" button instance, and add the gotoAndStop action. Under Scene select "Links", under Type, select Frame Number, and under Frame, enter "1". Deselect the "Go to and Play" box:

Object Actions Image: Construction of the second	
	÷ -

- Test the movie. When you click on the "Cactus" button, you should be taken to the "Links" scene.
- Save File As mexico23.fla.
- Open the *mexico23.fla* from the Flash 5 Advanced Samples folder to see an example.

To Load Another Movie

- In this exercise, you will load another movie on the top of your existing movie. This is the best way to split large projects by dividing them into various small, easy to download movies.
- Open the **quiz6.fla** file.
- In the "Navigation" layer, at frame 10, select the "Hand Button" and open the Actions Panel.
- Change the current action by adding the loadMovie action. Under the URL field, type mexico24.swf. Under Location field, select Level and type 0 for the level number. This will load the mexico24.swf movie and overwrite the current one:

Object Actions	× (
+ - Object Actions	▼ ▲
<pre>include include i</pre>	24.swf", 0);
Line 2: loadMovieNum ("mexico24.swf", 0);	
URL: mexico24.swf	Expression
Location: Level 💽 0	M Expression
Variables: Don't send	•
	⇔ △

- Save File As quiz7.fla.
- Publish the movie, but do not test the movie yet. You will need to create mexico24.swf first, before you can test the above functionality. For now, we just needed to create **quiz7.swf** file to be used for our next step.
- Open the *quiz7.fla* from the Flash 5 Advanced Samples folder to see an example.



- Now open the mexico23.fla file.
- In the "Text" layer, select the "Text Button" (MEXICO) and add the loadMovie action. This time, under URL field, enter quiz7.swf. Under Location field, select Level again and type 0 for the level number:

Object Actions	×	
+ - Object Actions	▼ ▲	
include icadMovie icadMovie icadWariables icadWariables	', 0);	
Line 2: loadMovieNum ("quiz7.swf", 0);		
URL: quiz7.swf	Expression	•
Location: Level 🗾 0	Expression	
Variables: Don't send		
	⇔ △	

- Save File As mexico24.fla.
- Now publish and test the movie. When you click on the "Mexico" button, the Quiz movie will be loaded. Complete the quiz, and on the Quiz Results page click on the "Hand" button. This will take you back to the Mexico movie.
- Open the *mexico24.fla* from the Flash 5 Advanced Samples folder to see an example.

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NOTION

Web Interaction

To Add Hyperlinks and Email

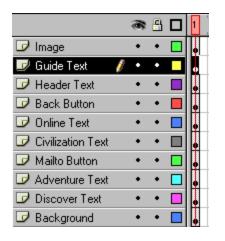
- In this exercise we will add hyperlinks to other websites and send an email from within the movie.
- Still in the mexico24.fla file, go to the scene "Links".
- In the scene "Links", rename the default layer to "Background".
- Draw a rectangular background shape and fill it with dark green color (R=0 G=51 B=51).
- Using the **Info Panel**, adjust the background size to match the movie (550 x 400), and center it on the Stage:

	ļo	100	200	300	400	500	600	
100			00000	Info 🔁 Tra Shape	ansfo 🥢	Stroke 🔣 F	× (
200			. ₽ 	W: 550.0 H: 400.0 B: -		HQ X: 275.0 HG Y: 200.0		
300			2	G: - B: - A: -		+ X: 1088.3 Y: -162.0	3	
6					-			

- Insert a new layer named "Image"
- With frame 1 of the "Image" layer selected, import "Chillies.bmp" file from the Samples Folder.
- Position it at middle-right area of the stage.
- Insert a new layer named "Header Text".
- Using the Impact font (size 45, white color), type the words "MEXICO online".
- Select the word "MEXICO" and using the Character Panel, add Bold, Kern to 4.
- With the word **"online"** selected, change the font size to 30, Kern to 18. This will be the page header.

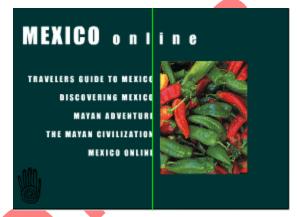
 Next you will create separate layers for each text button to be used for hyperlinks. The hyperlink text will be as follows:

Travelers Guide to Mexico Discovering Mexico Maya Adventure The Mayan Civilization Mexico Online



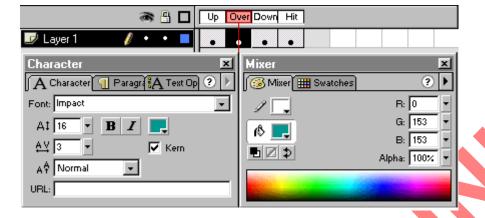
(Layer name: Guide Text) (Layer Name: Discover Text) (Layer Name: Mayan Text) (Layer Name: Civilization Text) (Layer Name: Online Text)

- On each appropriate layer, type the above text in capitals using Font = Impact, Size = 16, Kern = 3, Color = White (R=255 G=255 B=255).
- Right-align the text so it is a couple of spaces to the left-side edge of the "Chillies" image.



Convert each line of text to a button symbol, naming them "Guide Text Button", "Discover Text Button", "Mayan Text Button", "Civilization Text Button", and "Online Text Button". Double click each button to edit. Add keyframes to each state.

 In the Over state, select the text, and using the Mixer Panel, change the color to R=0 G=153 B=153:



- In the Down state, change the text color to R=0 G=204 B=204.
- In the Hit state, draw a filled rectangle around the text, then remove the text:

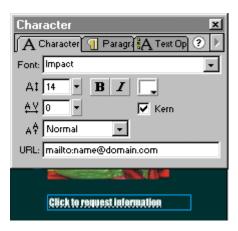
Image: Constraint of the second se	+
	Name Adventure Text Button Cactus Cactus Button Cactus Button Cactus Cactus Button Cactus Button Cactus Button Cactus Butto

- Insert a new layer and name it "Mailto Text".
- Using the Text tool, type "Click to request information".
- Using the Character Panel, adjust the font size to 12, color to white, and Kern to 2.



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• Type in the **URL** field "mailto:name@domain.com". Note: You can type your own email address instead of sample address name@domain.com:



- Now add another layer and name it "Back Button".
- Open as Library the Artwork.fla file from the Sample Folder.
- From the Artwork Library, drag the "Hand Button" symbol onto the Stage. Position the button at the bottom left corner of the Stage.
- Add the gotoAndStop action to the "Hand Button". Under Scene, select "Main". Under Type, select Frame Label, and under Frame select "Day" frame label. Deselect the Go to and Play checkbox:

Object Act	tions	×
Movie E	xplorer 🔊 Object Actions	? Þ
+ - 0t	bject Actions	▼ ▲
E Basic	Actions on (release) {	
🧔 Go	oTo gotoAndStop ("Main", "	Jay J;
🗌 🕗 PI	lay 🗾	
Line 2: got	toAndStop ("Main", "Day");	
Scene:	: Main	•
	Frame Label	•
Erame:	: Day	•
	Go to and Play	
		⇔ ∟

Insert a new layer, named "Actions". Position this layer at the top of layer list.

• Still in "Actions" layer, add the **Stop** action to the frame 1:

	, W	8	1	1 5	+ - Frame Actions
🗾 Actions	Ø			a	Play stop O;
🕏 Image		• •	•		🖉 Stop
🕏 Guide Text		• •	•		🕼 Toggle High Quality
😡 Header Text		•	•		Line 1: stop ();
Ŀ ₽				•	No Parameters.

- Test the movie. When you click on the "Cactus" button, you should be taken to the "Links" scene. Click on the "Hand" button to go back to the main screen.
- To test the links, File > Publish > Preview, and test the published movie inside the Internet browser.
- Save File As mexico25.fla.
- Open the *mexico25.fla* from the Flash 5 Advanced Samples folder to see an example.

NOTION

Flash 5 Advanced

Optimizing Movies

To Create a Preloader

- The Preloader is the scene that displays on screen while the main file is loading in the background. We will create a simple preloader using a Movie Clip.
- Still in the mexico25.fla file, create a new Movie Clip symbol and name it "Preloader Movie".
- In the Edit Symbol mode, rename the default layer to "Background".
- Draw a rectangle to match the movie dimensions (550 x 400) and center it on the Stage.
- Using the Linear Gradient Fill Panel, and colors from orange (#FF6400) to dark tan (#980000), fill the rectangle with color.
- Insert a **Frame** at frame 40.
- Insert a new layer named "Loading text".
- Using the Arial Black font, size 20, pale orange color, type the word "Loading..." and convert it to a graphic symbol. Name it "Loading Text". Position the text to the top left side of the Stage:

0		
Loading	Character 🔀	
Luauny	🗛 Character 羽 Paragra 🗛 Text Op 🥐 🕨	
	Font: Arial Black	
	At 20 💌 🖪 🗾 📃	
	AY 0 ▼ Kern	
	A‡ Normal ▼	
	URL:	
		1

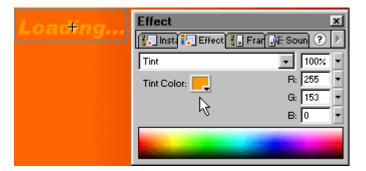
• Add keyframes on 5 frame intervals, and add the Motion Tween in between them:

🖆 <u>Main</u> 🔣 Prekoad	r Movie	
	🔿 🖺 🔲 1 5 10 15 20 25 30 35	40
🔟 Loading text 🛛 👔	• • ■ <mark> </mark>	→ •
🕏 Background	• • D	0
•	1 12.0 fps 0.0s	
Loading	<u>"</u>	

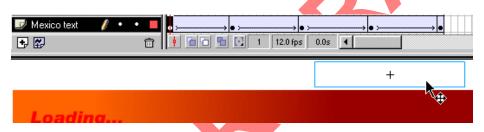
At each keyframe, change the **Tint** Effect of the "Loading Text" instance. This way the text will be changing its color throughout the animation:

Frame 1 R=255 G=0 B=0 Frame 5 R=255 G=51 B=0 Frame 10 R=255 G=102 B=0 Frame 15 R=255 G=153 B=0 Frame 20 R=255 G=204 B=0 © 2001 Cheltenham Computer Training

• Reverse the order in the rest of the frames, finishing with Frame 40 R=255 G=0 B=0:



- Insert a new layer named "Postcard text".
- Using the bold orange text, type "a postcard from" at the lower left area of the stage. This
 does not need to be converted to a symbol, as it will not require any effects.
- Insert a new layer named "Mexico text".
- Type the word "MEXICO" and convert it to a graphic symbol named "Mexico Text".
- Break apart the MEXICO text, so that you now have shapes instead of font objects.
- Position the "Mexico text" instance to the top right area above the Stage (x=159.8, y=-218.2). Add keyframes at 10 frame intervals and insert the Motion Tween in between them:



Continue adding effects to each keyframe as follows:

Frame 10: x=14.9 v=-75.2 Alpha=40%

	Frame 30: :	x=89.8 y=98	1.9 Alpha=60 3.8 Alpha=809 59.8 Alpha=1	6
	Effect	Effect 🚼 Frar	× }∰ Soun ? > ▼ 40% ▼	
~		ME	<u> </u>	0

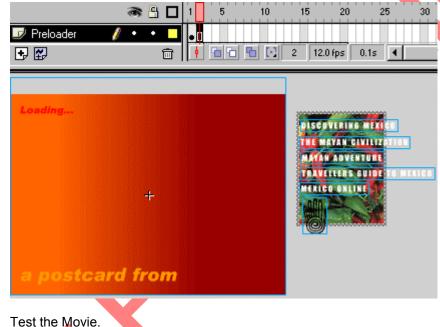
- Insert a new layer named "Labels".
- Label the frame 1 as "Postcard".
- Go back to the "Main" Scene.

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- Insert a new layer, just under the "Labels" layer, and name it "Preloader".
- Insert two frames in front of frame 1 for each layer.
- In the "Preloader" layer, place the "Preloader Movie" symbol in the frame 1.
- In this layer only, delete all other frames except frame 1 and 2:

		æ	8	1	5	10	15	20
🕏 Actions		٠	٠	٩.	a	a		a
🕏 Labels		٠	٠		►Day	[≥] Night		
🗾 Preloader	ø	٠	٠	ļ				
🕝 Gecko		•	•	Г	43			П

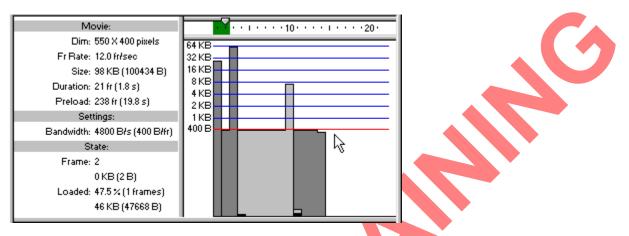
• In the frame 2, drag the symbols used in the "Links" Scene and position them outside the Stage, on the Work Area. This way they wont show when published, but they will still load at the beginning of the movie:





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- While movie is being tested in the Flash Player, select View > Bandwidth Profiler. This will display the details of how the movie will play.
- In the graph, note the frame number of the last vertical bar (i.e. frame 10). The following frame number (i.e. frame 11) will be used for the **Preloader Action**:



- In the "Actions" layer, select frame 1 and add the if action from the Actions book.
- In the Condition field add _framesloaded action, from the Properties book, and enter ">= 11". Then add gotoAndStop ("Day"); action. This means that the movie will check if the 11 frames were loaded, and then go to and stop at frame label "Day":

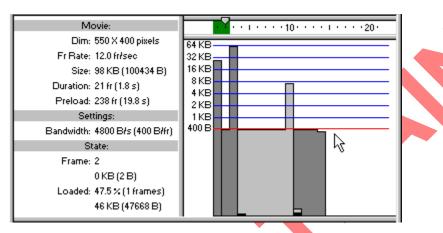
Frame Actions	×
🕰 Movie Explorer 🔊 Frame Actions	?►
+ - Frame Actions	▼ ▲
<pre>Properties alpha alpha ourrentframe droptarget focusrect framesloaded height Line 1: if (_framesloaded >= 11) {</pre>	
Condition:framesloaded >= 11	
ß	
	⇔ ⇔

- Test the movie. Make sure to select View > Show Streaming, otherwise you may not see the Preloader, because the movie is playing from the hard-drive, all the frames are quickly loaded.
- Save File As mexico26.fla
- Open the *mexico26.fla* from the Flash 5 Advanced Samples folder to see an example.

Flash 5 Advanced

To Test the Movie

- Optimizing the movie will reduce the file size of your movie and improve download performance. It requires experimentation to evaluate file size versus quality. Optimizing can be done in two different ways:
- As the movie is created, the individual components are optimized.
- After the movie is created, the whole movie is optimized before Publishing.
- Test your movie and while it is playing, select Control > View Bandwidth Profiler.
- Note the movie size, frame rate, number of frames and the download time:



- From the main menu, select **Debug**. You will see the modem speed has been set to 56K (default).
- Select the modem speeds for 14.4K and 28.8K and note the changes to the "Preload" download time in the Bandwidth Profiler.
- Also note the small changes in the vertical bars on the graph.
- Select Debug > Customize. Add 250k (DSL) settings to the list.
- In the Menu text, change User Setting 4 to "250k (DSL)", and the Bit rate to "32000":

Custom Modem Set	tings		
Menu text:	Bit rate:		ОК
14.4	1200	bytes/s	Cancel
28.8	2400	bytes/s	
56K	4800	bytes/s	
256k DSL	32000	bytes/s	
User Setting 5	2400	bytes/s	
User Setting 6	2400	bytes/s	<u>H</u> elp

Select **Debug** again. Note the "250k DSL" setting has been added to the connection list:

Γ	De	bug	<u>W</u> indov	,	<u>H</u> elp	
Ī		List	<u>O</u> bjects			Ctrl+L
1		List	<u>V</u> ariables			Ctrl+Alt+V
ĺ		14.4	(1.2 KB/	's]		
		28.8) (2.3 KB/	's]		
1	~	56K	(4.7 KB/	s)		
		256	k DSL (3	1.:	3 KB/s)	
		Use	r Setting	5	(2.3 KB/s)	
		Use	r Setting	6	(2.3 KB/s)	
l		Cust	tomize			

- Select "250k DSL" and note the changes in the Bandwidth Profiler graph. The vertical bars are reduced to a minimum.
- The majority of web audience is using 56K modems; therefore you often need to optimize your movie to accommodate that download speed. To see the simulation of the movie's download time, select View > Show Streaming.
- Test the movie again, using different modem settings.
- Select View > Frame by Frame Graph. Note the "spikes" are in frames 1, 3, 10 and 21 (i.e. above the red horizontal line).
- Frame 3: Day
- Frame 10: Night
- Frame 21: Links

Vie	w Control Debug	Window	Help	
	Zoom In	Ctrl+=		
	Zoom Out	Ctrl+-		
	Magnification		•	
•	Bandwidth Profiler	Ctrl+B		
	Show Streaming	Ctrl+Ent	er	
	Streaming Graph	Ctrl+G		
~	Frame By Frame Graph	n Ctrl+F		
	Quality	43	•	
T	Frame: 3			
	57 KB (5	9121 B)	1 KE	
	Loaded: 100.0 % ()	21 frames)	400 E	в
	95 KB (9)			

- Cancel "Test Movie" and return to the "Main" scene.
- Save File As mexico27.fla.
- Test the movie again and check the file size of mexico27.swf file. It should be approximately 96KB.
- Open the *mexico27.fla* from the Flash 5 Advanced Samples folder to see an example.



Flash 5 Advanced

To Optimize the Movie

- Now we will optimize the movie by optimizing individual components.
- Still in the mexico27.fla file, open the Library.
- Select "Chillies.bmp" and open Options > Properties.
- Change the Compression to Lossless (PNG/GIF), then Test Movie again to see the change in SWF file size. You will notice that the file size has increased significantly from 96KB to 201KB:

Bitmap Properties		×
	Chillies.bmp .\Level III Samples\Chillies.bmp Saturday, June 23, 2001 4:20:04 PM 174 x 225 pixels at 32 bits per pixel ✓ Allow <u>smoothing</u> <u>Compression: Photo (JPEG)</u> ✓ <u>Use docum</u> <u>Photo (JPEG)</u>	OK Cancel Update Import
		Help

Set the image Compression back to Photo (JPEG).

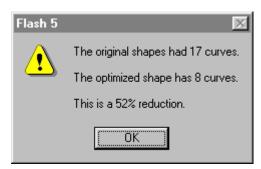
 In the Library, select the longest sound file "drum-conga-long-2.wav" from the Sound Folder:

Sound Properties		×	
	drum-conga-long-2.wav	ОК	
a nativitati	\\Flash Level II\Zoca\Exercises\Flash 5 Intermediate Samples\drum-conga-long-2.wav	Cancel	
1.4.4.4.4.4.4.	Monday, May 21, 2001 1:04:46 AM	Update	
	22 kHz Mono 8 Bit 5.9 s 130.0 kB	Import	
, , , , , , , , , , , , , , , , , , ,		Test	
		Stop	
	Export Settings	Help	
	Compression: Raw		
	Preprocessing: 🔽 Convert Stereo to Mono		
	Sample Rate: 22kHz 💌		
	176 kbps Mono 130.0 kB, 100.0% of original		
			J.

- Experiment by changing the Sound Export Settings, testing the movie each time and noting the change in file size. In this example, changing from **MP3** to **Raw** compression has increased the SWF file size from 96KB to 211KB.
- Set the sound compression back to MP3.
- Now we will optimize the vector graphics in the movie. Ensure that all layers are unlocked.
- Using the Onion Skin tool, select Edit Multiple Frames.
- Click the Modify Onion Markers menu and select Onion All.
- Select All (CrtI+A). This will select all the layers in the timeline.
- In the main menu, choose Modify > Optimize.
- Move the **Smoothing** slider to **Maximum**, check both option boxes, then **OK**:

		• • • • • • • • • • • • • • • • • • •		
Optimiz	ze Curve	s		×
<u>s</u>	moothing:]	ОК
		None	Maximum	Cancel
	Options:	✓ Use multiple pase	sses (slower)	
		Show totals me	ssage	<u>H</u> elp

• Note the response message in the reduction to the number of curves:



- Test the movie. You will notice that the SWF file didn't change. That is because your movie doesn't have complex vector images. If you had vector images with large number of curves, this optimization will reduce the file size.
- Now we will optimize the movie by optimizing the whole move for the Publishing.
- Select File > Publish Settings.
- Select **Flash** tab and slide the **JPEG Quality** slider to the left, to decrease the quality of raster images:

Load Order: Bottom up Options: Generate size report Omit Trace actions Protect from import Debugging Permitted Password: JPEG Quality: 0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Options: 🔽 Generate size report
Omit Trace actions Protect from import Debugging Permitted Password: JPEG Quality:	
Protect from import Debugging Permitted Password: JPEG Quality:	
Debugging Permitted Password: JPEG Quality:	🗌 Omit Trace actions
Password:	Protect from import
JPEG Quality:	🗖 Debugging Permitted
	Password:
	This will optimize raster graphics .
nio wii optimize ruster grupines.	

• Test the movie again. You will notice that the SWF file size has decreased from 96KB to 83KB. But if you look at the raster image in the "Links" Scene, you will notice that its quality has decreased significantly:







- Set the JPG quality back to 80. This is the default setting.
- Sound files can also be optimized using this process. Just set the Audio Stream and Audio Event and check the **Override sound settings** option. This will compress all sound files in the same way:

Publish Settings	
Formats Flash HTML	
Load Order: Bottom up	
Options: 🦵 Generate size report 🔽 Omit Trace actions 🖵 Protect from import 🖵 Debugging Permitted	
Password:	
JPEG Quality:	- 80
Audio Stream: MP3, 16 kbps, Mono	Set
Audio Event: MP3, 16 kbps, Mono	Set
I Override sound settin	gs

- Test the movie. You will notice that the SWF file size has decreased from 96KB to 93KB.
- Go back and uncheck the Override sound settings. This is the default setting.
- Check the Generate size report option and click OK.
- Test the movie. You will notice that the **report text (TXT) file** is now generated in the same folder where your FLA and SWF files are. Open this text file to view all size information of your movie.
- Open the *mexico27 Report.txt* from the Flash 5 Advanced Samples folder to see an example.

Standalone Movies

To Create the Projector

- Some actions work only in standalone Projector files. In this exercise we will add few of those actions.
- Open the mexico27.fla file.
- Select the "Pyramid Big Button" instance and add the On Mouse Event (release) action.
- Add the FSCommand action. Select fullscreen [true/false] from Commands for standalone player ("true" is the Arguments default). This will make the movie increase to the full screen of the monitor:

Object Actions	×
🕰 Movie Explorer 🔊 Object Actions	? Þ
+ - Object Actions	▼ ▲
for.in on (release) {	
FSCommand ("fullscreen"	", "true");
I function	
Line 2: fscommand ("fullscreen", "true");	
Command: fullscreen	Expression
Arguments: true	Expression
Commands for standalone player:	
fullscreen [true/false]	
13	⇔ △

• Select "Pyramid Small Button" instance and add the fullscreen [true/false] from Commands for standalone player. Change the Arguments to "false". This will make the movie go back to its default screen size on the monitor.

• Back on the stage, select the "Gecko Button" instance and add the quit from Commands for standalone player. This will close the standalone file:

Object Actions	×	
+ - Object Actions		
<pre> for.in for.in for.in fscommand ("quit"); </pre>		
function		
Line 2: fscommand ("quit");		
Command: quit	Expression	
Arguments:	Expression	
Commands for standalone player:	1	
	<u>.</u>	
v	∆ ⊕	

- Save File As mexico28.fla
- Open the *mexico28.fla* from the Flash 5 Advanced Samples folder to see an example.
- Before the above actions can be tested, there is one more step. Choose File > Publish Settings.
- Check Windows Projector (.exe) and click Publish button:

Publish Settings			x
Formats Flash		1	OK
	_		Publish
Туре:	Filename:		Cancel
🔽 [Flash (.swf)	mexico27.swf		Cancer
🔲 Generator Template (.swt)	mexico27.swt		
HTML (.html)	mexico27.html		
🔲 GIF Image (.gif)	mexico27.gif		
🔲 JPEG Image (.jpg)	mexico27.jpg		
🔲 PNG Image (.png)	mexico27.png		
Windows Projector (.exe)	mexico27.exe		
Macintosh Projector	mexico27.hqx		

- An .exe file is generated in your folder as mexico28.exe.
- Run the **mexico28.exe** by simply double-clicking on it.
- Test the button actions. Click on the "Big Pyramid" will expand the movie to full screen. Click on the "Small Pyramid" will resize the movie to its original size. Click on the "Gecko" to close the projector.

Flash 5 Advanced

To Prepare Final Movies

- During the course of our exercises, we were naming the files accordingly, so that you can see the example results of each exercise. However, now we will prepare the final versions for our movies.
- First open the **quiz7.fla** file.
- In the "Navigation" layer, at frame 10, select the "Hand Button" and edit the action to load the "mexico.swf" movie:

```
on (release) {
    loadMovieNum ("mexico.swf", 0);
}
```

- Set the Publish Settings for Flash file format only.
- Save File As quiz.fla
- Open the quiz.fla from the Flash 5 Advanced Samples folder to see an example.
- Publish the movie to generate the **quiz.swf** file.
- Now open the **mexico28.fla** file.
- In the "Text" layer, select the Mexico "Text Button" instance and edit the action to load the "quiz.swf" movie:

```
on (release) {
    loadMovieNum ("quiz.swf", 0);
}
```

- Set the Publish Settings for HTML, Flash and Windows Projector file forms.
- Save File As mexico.fla
- Open the *mexico.fla* from the Flash 5 Advanced Samples folder to see an example.
- Publish the movie to generate mexico.html, mexico.swf and mexico.exe files.
- Run the mexico.exe file. Test all functionalities.
- Open the **mexico.html** file in the browser. Test all functionalities. Everything should work, except the Projector commands added to the "Big Pyramid", "Small Pyramid" and "Gecko" buttons. These commands will work on the standalone EXE file only.
- Open the *mexico.exe* and the *mexico.html* files from the Flash 5 Advanced Samples folder to see an example.

