

Multimedia Module

AFTER EFFECTS 5 USER MANUAL



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Modules available online at <http://mll.arizona.edu/workshops.shtml?tutorialpdfs>

TABLE OF CONTENTS

Why After Effects?	3
Essential Terms and Concepts	3
Exploring the Interface	4
Exercise 1: Exploring the Interface	4
The Interface in Depth	5
Exercise 2: Importing Files	6
Keyframing	6
Exercise 3: Compositing	7
Exercise 4: Masking	7
Effects	8
Exercise 5: Effects	9
Set Keyframes and Save Work	9
Exercise 6: Set Keyframes and Save Work	10
Exercise 7: Export From After Effects	10
Criterion Test.....	12

WHY AFTER EFFECTS?

AfterEffects creates stand alone movies. With so many programs out there that create stand alone movies to choose from, how can we help a user pick the best one to fit their needs?

AfterEffects is an advanced motion graphics and visual effects program. The final outcome of AfterEffects is a movie file such as a **QuickTime movie**. Because of this it is necessary to distinguish AfterEffects from digital video editing software. AfterEffects **does not** edit video, but rather takes video clips and creates special effects and/or adds movement to the clip- along with sound files, still images, text, etc.

Final Cut Pro is a professional quality digital video editing program. Final Cut Pro offers some effects, but has relatively few options when compared to AfterEffects.

Macromedia Flash also has the ability to create web sites and movies that can be published to the web using a separate FTP program or burned to a CD as a projector of the movie. The advantages of Flash is the ability of increased interactivity and animation. Flash movies can be very small in size and can be placed in Dreamweaver along with other information on a web page. Flash is the choice if interactivity and advanced animations are important to you or your web site.

Macromedia Director can also be used like a Flash movie as an interactive web site, but is mostly useful if creating stand alone projectors for movies, interactive games, and animations on CDs, web sites, and Kiosks.

ESSENTIAL TERMS AND CONCEPTS

Footage file: is any sound, movie or picture file (such as .aif, .mov or .tif) that After Effects supports.

Object: is a footage file that has been placed into the Composition and Timeline windows.

Layer: Objects are placed in a stacking order, each one on a layer, in the Composition and Timeline windows.

Manipulate: To manipulate an object is to apply any transform, mask or effect to it; objects are manipulated over time.

Transforms: are used to change an object's position, scale, opacity and/or rotation within the composition and over time.

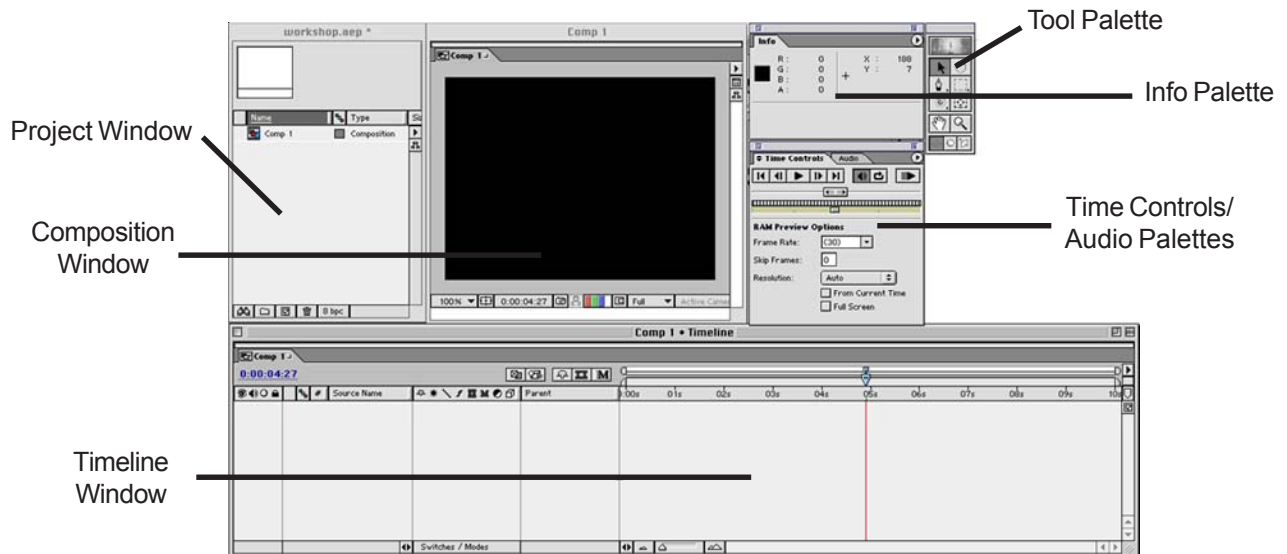
Masks: are created to block out and/or reveal portions of the composition. They are an outline, that modifies a layer's alpha channel. Use a mask when you want to draw areas of transparency in After Effects. A mask belongs to a specific layer, but each After Effects layer can contain multiple masks.

Effects: are another, more advanced way to manipulate objects.

A **movie file** (ex. a QuickTime file) will be the final outcome of using After Effects.

EXPLORING THE INTERFACE

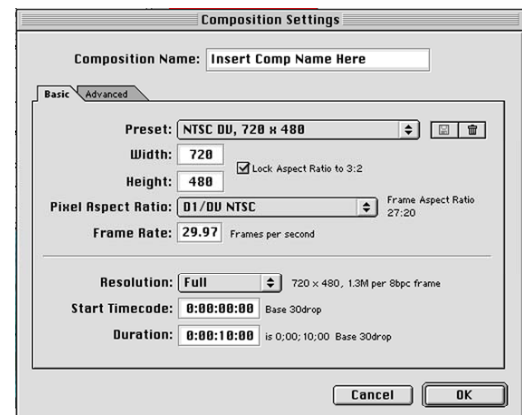
The interface consists of three main windows: the **Project** window, the **Composition** window, and the **Timeline** window. In addition there are **palettes**: tools, info, time controls, and audio.



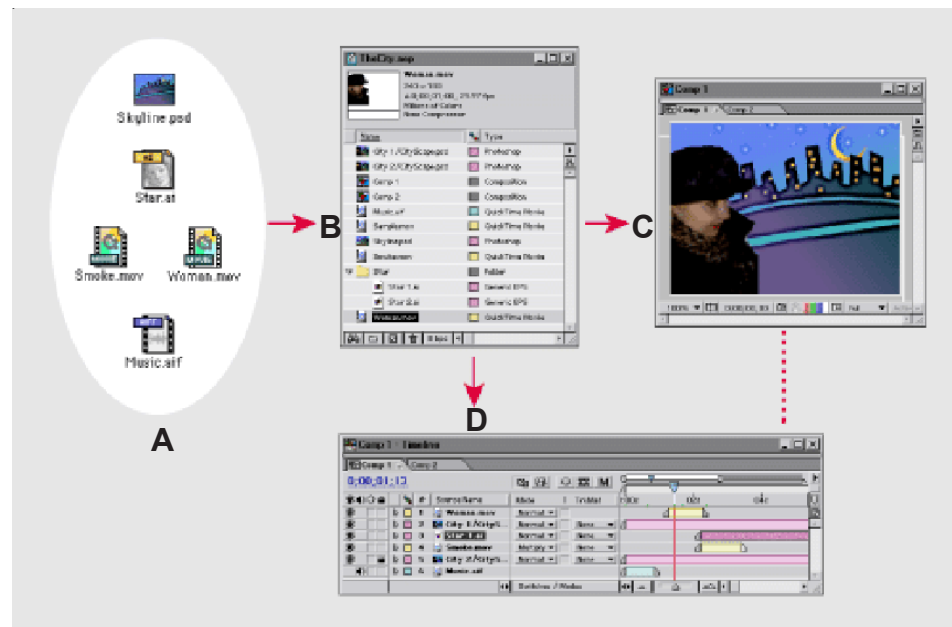
EXERCISE 1: EXPLORING THE INTERFACE

Steps:

1. Create a new composition window by selecting **Composition > New Composition**. The Composition Settings window will appear.
2. Name the composition in the **Composition Name** box.
3. Set the **Preset** (i.e. frame size) to **720 x 480** and **NTSC DV, 720 x 480**.
4. Set the **Pixel Aspect Ratio** to **D1/DV NTSC**.
5. Set **Resolution** to **Full**.
6. Set **Frame Rate** to **29.97** frames per second.
7. Set **Duration** to the expected duration of your project (i.e. Hours : Minutes : Seconds : Frames). This can be changed later if necessary. Click **OK**.



THE INTERFACE IN DEPTH



A. Source Footage B. Project Window C. Composition Window D. Timeline Window

As you work with compositions, you also use three other types of windows: **Footage** windows, **Layer** windows, and **Effect Controls** windows.

Footage Windows: are useful for viewing and evaluating footage items in their original form.

Layer Windows: To view a layer's original source independently of other layers or to trim footage, you can open a Layer window.

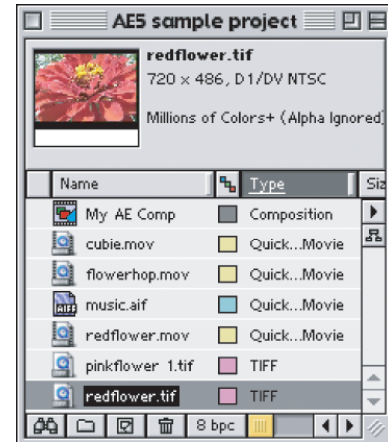
Effects Control Windows: As you work with effects, you use the Effect Controls window to modify and animate the effects.

EXERCISE 2: IMPORTING FILES

Steps:

1. Click **File > Import > File**. A location window will appear
2. **Locate** and select the footage file you wish to import
3. Click **Import**. For this workshop, the folder on the hard drive is called AEWorshop. Import the files in this folder

Note: If importing more than one file: choose Multiple Files option. A location window will appear. Locate and select the footage files you wish to import onto the computer, one at a time.



KEYFRAMING

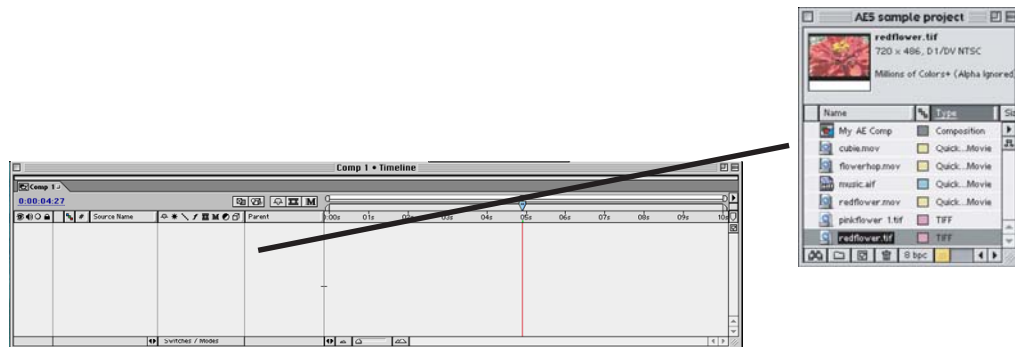
1. A **keyframe** marks the point in time (in the Timeline window) where one specifies a value for a layer property (for instance, its position).
2. Animation of any kind requires **at least two** keyframes (i.e. an initial value and a final value). Change begins at the first keyframe and continues until it reaches the second keyframe.
3. Given two or more keyframes, AfterEffects **interpolates transition frames** (the frames between the keyframes) automatically.
4. You will be setting keyframes in the **Timeline** window for each desired property (ex. position, scale, etc.) of every object you wish to animate.

These are the basic principles of keyframes and how to use them. Though this is only a model created for this lesson, the principles can be directly applied to After Effects, or any program that uses keyframes.

EXERCISE 3: COMPOSITING

Steps:

1. **Drag** the footage files that you will be using from the Project window to the **Timeline window**. They will appear as a list of objects once moved.



2. Expand properties of item by pressing on the triangle and then expanding the Transform option as well.
3. Set a numeric value for any transform property by doing one of the following:
 - ◆ Click and hold on the **blue number** to the right of the property. While holding down the mouse button, you will be able to increase or decrease the property's value by **scrolling right or left**, respectively.
 - ◆ Set both **position and scale**, using the **selection tool**. For **position**, click the center of the object in the **Composition Window** and **drag** to the desired position. For **scale**, click and **drag the handles** at the corners or sides of the object.
 - ◆ Set the rotation property by using its tool. Select the rotation tool in the Tools window. In the Composition window, click on the desired object. Then rotate the object using the handles.

EXERCISE 4: MASKING

Steps:

1. Select the **layer** in the Timeline window that you wish to add a mask to.
2. Click **Layer > Mask > New Mask**. A new mask named "Mask 1" will appear under the Masks section.
3. Click on the **triangle** to the left of "Mask 1" to reveal the **mask's properties**. You will see Mask Shape, Mask Feather, Mask Opacity, and Mask Expansion.

Mask Shape controls the shape and size of the mask.

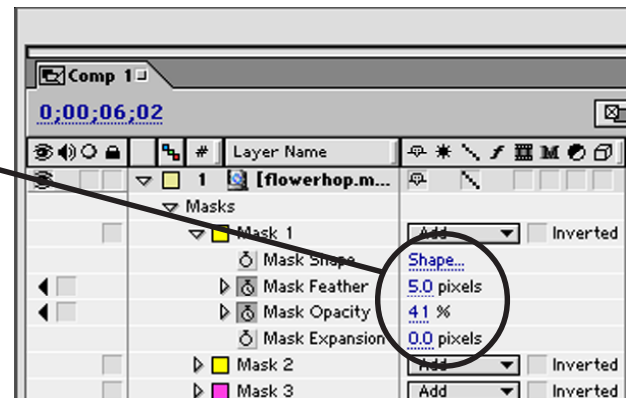
Mask Feather dithers the edges of the mask (for less noticeable edges).

Mask Opacity controls the transparency of the mask.

Mask Expansion scales the mask.

To **adjust the values** of any of the four mask properties, click on the numbers or words to the right of the property's name and enter a value or click, hold and scroll (the same way transform properties are adjusted).

The tools from the Tools window (used on the transform properties) can also be used to manipulate masks such as moving the position of the mask using the **Selection Tool**.



4. Change the **Mask Opacity** to 41%
5. Change **Mask Feather** to 5 pixels

EFFECTS

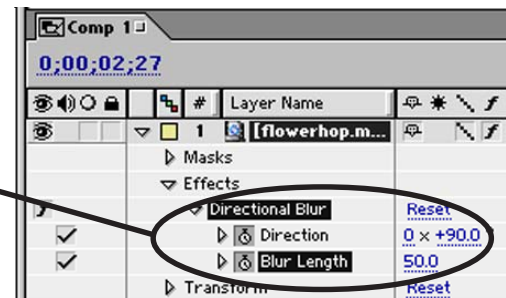
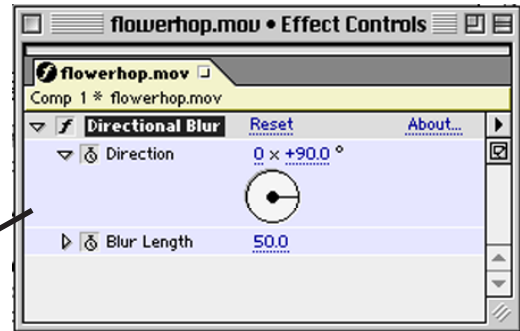
When you apply an effect to a layer, the **Effect Controls window** opens; the effect is listed there. Each layer to which you apply effects appears on its own tab in the Effect Controls window. The effect is also listed in the Effects section under the layer name in the Timeline window.

If you apply additional effects to the layer, they are listed under the first effect in the Timeline window. You change the order in which effects are rendered by dragging the effect name to a new position in the list.

EXERCISE 5: EFFECTS

Steps:

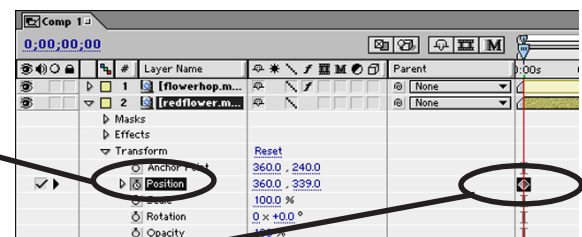
1. **Select the layer** in the Timeline window that you wish to add an effect to.
2. Select the desired effect(s) by going to **Effect** at the top of the screen. For example, click Effect > Blur & Sharpen > Directional Blur. The **Effect Controls** window will appear.
3. In the Effect Controls window, **adjust the values** (in this example, Direction and Blur Length) as desired. The values can also be set in the Timeline window by changing the numeric value to the right of the property (the same ways as described before for transform and mask properties).



SET KEYFRAMES AND SAVE WORK

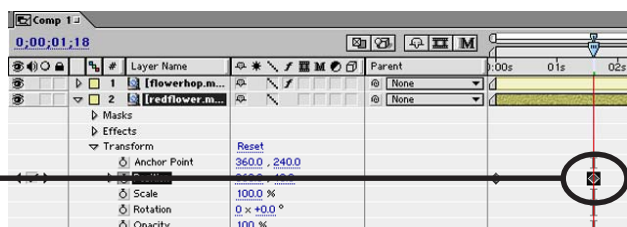
Set keyframes to animate objects:

Activate the **time-vary stopwatch** (circled) for the layer you wish to animate. Do this by clicking on the stopwatch-shaped icon located to the left of the layer property (ex. to the left of position)



When the time-vary stopwatch is activated, a **keyframe** (circled) will appear wherever the **current-time marker** (red line) is currently located.

To **add an additional keyframe**, place the current-time marker in a new position and set the property's value any of the ways discussed before (i.e. setting a property's initial value). Another keyframe automatically appears and another diamond will appear along the timeline once a new keyframe has been set.



To **remove a keyframe**, highlight the keyframe by clicking on it once, then press the delete key.

To **remove all keyframes for a given layer property**, deactivate the time-vary stopwatch by clicking on it. If you accidentally get rid of your keyframes this way, choose **Edit > Undo**.

To show the animation between the keyframes press play on the Time Controls Palette or press the spacebar with the Current Time Marker at the beginning point of the animation.

Be sure to **save your work** often. It is also advisable to save various versions of your work as you progress. This way, if a mistake is made and then saved, an older version can be recalled. Saving options are found under the **File menu**.

When saving work to removable media (ex. Zip disk, CD-R or CD-RW), be sure to copy the **AfterEffects project file** as well as all **source media** (i.e. footage files). The file After Effects creates when you save only keeps track of the manipulations you make to your media. The media is only referenced from the original image, movie and sound files.

EXERCISE 6: SET KEYFRAMES AND SAVE WORK

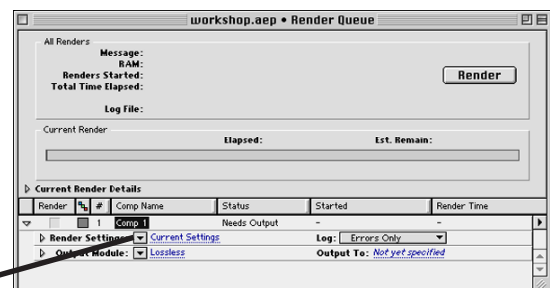
Steps:

1. **Add a keyframe** by activating the time-vary stopwatch for a particular property, placing the cursor on a new point in time and changing the **property's value**.
2. **Remove a keyframe** by highlighting it and pressing delete and **replace** it in another location on Timeline.
3. **Deactivate** the time-vary stopwatch to remove all keyframes for a particular layer, then **Undo**.
4. **Save** the project to the hard drive by going to **File > Save As. . .**

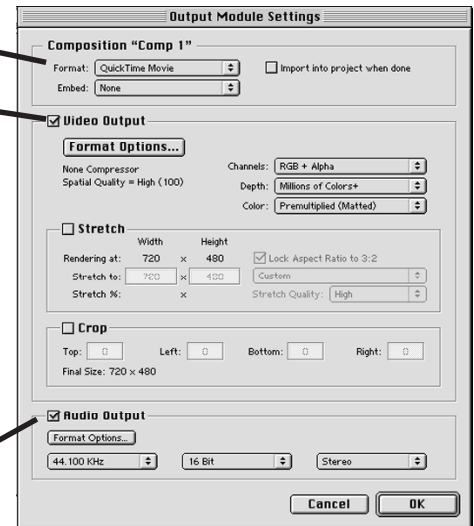
EXERCISE 7: EXPORT FROM AFTER EFFECTS

Steps:

1. Click **Composition > Add To Render Queue**. The Render Queue window will appear.
2. The composition you have been creating will be highlighted in black in the Render Queue window. **Click the triangle** to the right of Render Settings: and **select Best Settings**.



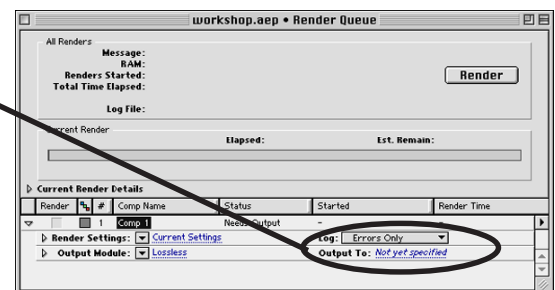
3. Double click on **Output Module** to bring up the **Output Module Settings** window. Set Format to **QuickTime Movie**.
4. Make sure the **Video Output** box is checked.
5. Under Video Output, click **Format Options**. The Compressor Settings window will appear.
6. For Compressor, select **None** and **Millions of Colors+**. Set the Quality slider to **Best**.
7. Click **OK**.
8. If your composition does not have audio, make sure the **Audio Output** box is not checked. If your composition does have audio, place a check in the Audio Output box.



9. Click on **Format Options**. The Sound Settings window will appear. Select the following values:
 - ◆ **Compressor:** None
 - ◆ **Rate:** 44.100
 - ◆ **Size:** 16 bit
 - ◆ **Use:** Mono or Stereo (*depends on your specific audio source)

Click **OK**

10. Click **OK** to close the Output Module Settings window.
11. Click on **Not Yet Specified** to the right of **Output To:** to set your file's saving destination and name. The Output Movie To: window will appear.
12. **Name** the movie file and select an **output destination** on the hard drive.
13. Click **Save**.



14. Click **Render** to begin rendering your composition into a movie file. When finished, the movie will appear as a file in the location you saved it to.

CRITERION TEST:
20 min

Write the answers to the following questions:

1. What is After Effects used for?
2. What is a footage file?
3. What is an object?
4. What are the four primary Transform properties?
5. What are masks used for?
6. How are effect properties set compared to Masks or Transforms?
7. What will the final product of After Effects be?
8. Which of the following lab clients should use After Effects?
 - A. Someone wanting to digitize and edit video
 - B. Someone wanting to create an interactive web page containing video
 - C. Someone wanting to animate titles and audio into a video

Complete the following tasks. Have the instructor verify that the task was successfully completed before moving to the next task:

1. Open After Effects 5.
2. Create a new composition and set the correct initial values.
3. Import footage files from the "AE5 Module Media" folder on the desktop into the Project window of After Effects.

Show the instructor what you have done before proceeding.

Write the answers to the following questions about keyframing:

1. What is a keyframe used for?
2. What information is contained in a keyframe?
3. How many keyframes must be set to animate objects?
4. How are the frames between keyframes calculated?