

# ***5 Phases of Development***

## ***Phase 1***

### **Development**

Define Project

Determine Student Groups

Students Brainstorm

Students Pitch Project to Instructor

Submitting Written Materials

Instructor Approves Project

Students Write Script and Submit for Approval



# Project Criteria

Date: \_\_\_\_\_

**Purpose:**

**Subject:**

**Audience:**

**Project Duration:**

**Project Deadline:**

**Export Format:**

☐ CD-ROM

☐ DVD

☐ VHS

☐ Web

☐ Email

☐ Other \_\_\_\_\_

**Special Instructions**

Script

[illegible]

EXAMPLE SCRIPT/SCREENPLAY

EXT. STREET OUTSIDE HOSPITAL - AFTERNOON MICHAEL DALEMAN, an eight-year-old boy dressed in poor but clean clothes and wearing an outdated pack sack, looks up at a large smoke stack billowing white smoke on top of a small town hospital. JORDAN and TYLER, two ten-year-old boys, approach Michael.

TYLER

Hi Michael  
They elbow one another and join Michael looking up at the smoke stack. Tyler says teasingly..

TYLER

That's where they burn parts of people.

Michael turns to him, wide eyed.

TYLER

There's a big fire-furnace in the basement where they burn 'em.

JORDAN joins in the teasing.

Taken from "The Director in the Classroom" by Nikos Theodosakis

# ***5 Phases of Development***

## ***Phase 2***

### **Pre-Production**

Students Storyboard and Submit for Approval

Students Prepare Breakdown Requirements

Students Create Props

Students Arrange Filming

# Storyboards



Notes: \_\_\_\_\_



Notes: \_\_\_\_\_



Notes: \_\_\_\_\_



Notes: \_\_\_\_\_



Notes: \_\_\_\_\_



Notes: \_\_\_\_\_

# Storyboard - Single

Shot/Scene #

Title:

Location

Timecode Start

Timecode End

Camera Direction:

Narration:

Notes/Comments



## Shot List

[illegible]

# ***5 Phases of Development***

## ***Phase 3***

### **Production**

Students Sign Out Equipment  
Students Record Video and Audio  
Students Return Equipment  
Students Submit Production Reports

# ***5 Phases of Development***

## ***Phase 4***

### **Post-Production**

Footage is imported into an editing program  
(iMovie, Movie Maker 2, etc.)

Editing

Test Screening

Revisions

Export Project





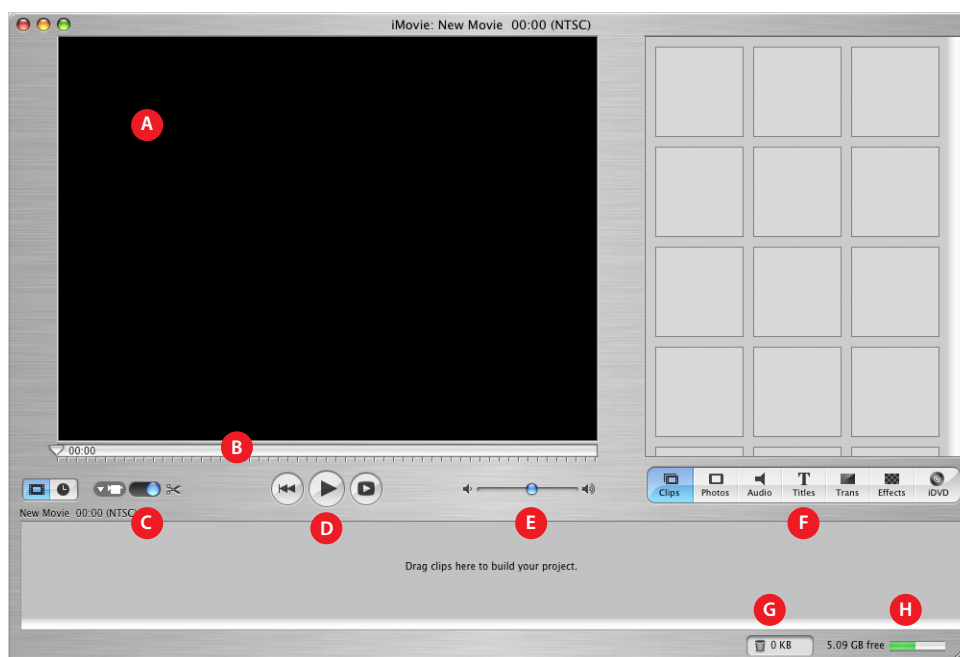
# iMovie at a Glance

“iMovie at a Glance” introduces you to the controls in the iMovie window. You use these controls to create your own movies. Take a look at these pages even if you don’t plan to do the tutorial, because you’ll need to know the names of the iMovie controls to follow instructions in iMovie Help.



The pages that follow introduce you to the main iMovie window, the timeline and clip viewers, and the different panes you use to add professional polish to your movie.

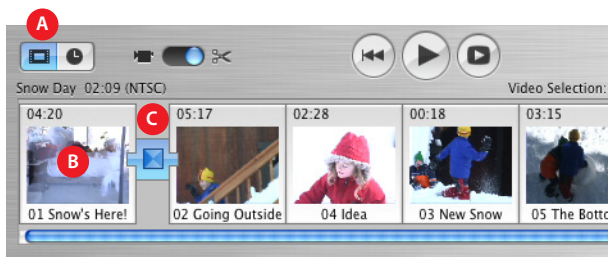
## iMovie Window



- A** *iMovie monitor:* Watch your clips play in this window. You can play clips that are in the Clips pane or the clip viewer.
- B** *Scrubber bar:* Drag the playhead along the scrubber bar to move through a clip frame by frame. The number near the playhead indicates how far (minutes:seconds:frames) the selected frame is into the movie.
- C** *Mode switch:* Click to switch between camera mode and edit mode. Use camera mode to choose an input device and transfer your raw video into the computer. Use edit mode to work on your movie.
- D** *Playback controls:* Use these controls to skip to the beginning of a selected clip, play the clip in the iMovie monitor, or play the clip full screen on your computer's monitor.
- E** *Volume slider:* Slide this control to change the volume of the computer's speaker while you work in iMovie. This won't change the volume levels in your video or audio clips.
- F** *Pane buttons:* Click these buttons to see the different panes of the iMovie window. See a description of each pane later in this document.
- G** *Trash:* Drag unwanted clips to the Trash icon to delete them. You can restore cropped video and audio from the iMovie Trash if you haven't emptied it.
- H** *Disk space indicator:* Monitor your free disk space as you work. You should always have about 2 GB free disk space for optimal performance of iMovie. When this bar turns yellow, you are starting to run low on disk space. When it turns red, you must free up some space to continue working on your movie.

## Clip Viewer

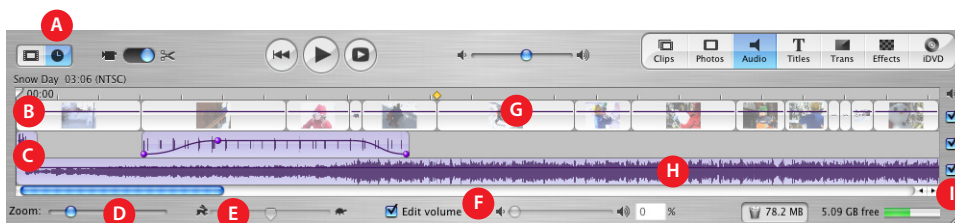
Use the clip viewer, shown below, to add clips to your movie and arrange them in the order you want them to appear in your movie. When you create titles and transitions, or add photographs from your iPhoto library, drag them to the clip viewer.



- A *Clip viewer button:* Click the clip viewer button to switch from the timeline viewer.
- B *Clip:* Each section of video footage and any still images you import are called clips.
- C *Transition marker:* Transition markers indicate that two clips are linked by a transition.

## Timeline Viewer

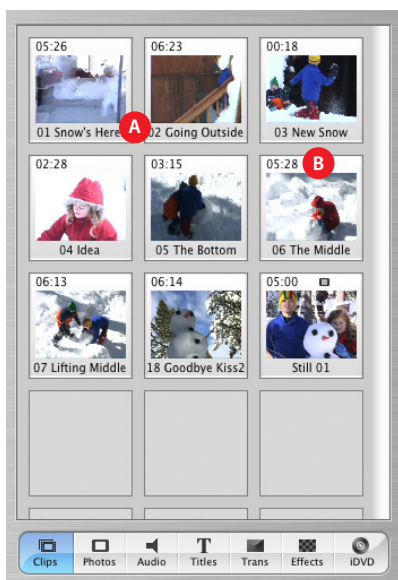
Use the timeline viewer, shown below, to work with audio clips, synchronize your audio with video, and to adjust the timing of your movie.



- A *Timeline viewer button:* Click the timeline viewer button to switch from the clip viewer.
- B *Video track:* Select clips in this track to add motion effects.
- C *Audio tracks:* Place and arrange audio clips in these tracks to synchronize audio and video clips. Deselecting the checkbox to the right of the track mutes all the audio clips in that track.
- D *Zoom slider:* Move the slider to make clips appear larger or smaller in the timeline.
- E *Clip speed slider:* Select a video clip and drag this slider to make the clip play faster or slower.
- F *Edit Volume:* Select this checkbox to see the volume level bar for all clips. Move the slider to raise or lower the volume of a selected clip or clip segment.
- G *Volume level bar:* Click this bar to add markers, then drag the markers to adjust the volume for sections of audio clips. You can use this to make audio fade in or fade out.
- H *Audio waveforms:* Representations of audio intensity. Use audio waveforms to align video to audio events such as a certain drumbeat or the exact beginning or end of the audio.
- I *Audio checkboxes:* Select a checkbox to hear the audio in its track. Deselect it to mute the track.

## Clips Pane

Click the Clips button to open the Clips pane. The video footage and still images you import into iMovie are stored here.



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**A** *Clip name:* Each clip is assigned a unique filename. Double-click the name to change it to something more meaningful to you. You can drag a clip from the Clips pane to the clip viewer to add it to your movie.

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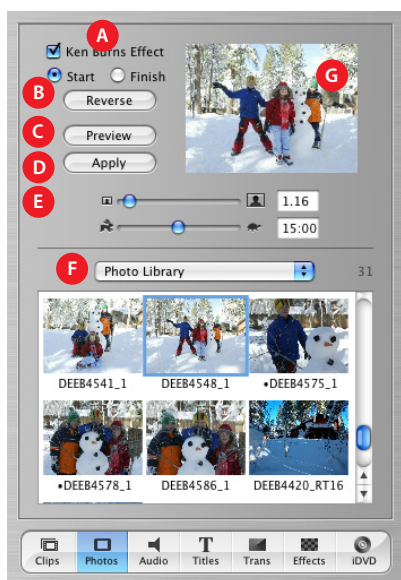
**B** *Duration:* The length of a video or audio clip is read as minutes:seconds:frames. For example, 01:08:15 is 1 minute, 8 seconds, and 15 frames into the movie.

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## Photos Pane

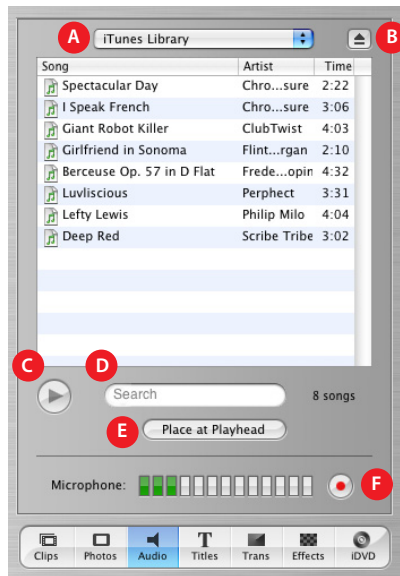
Click the Photos button to open the Photos pane. You can import an image directly from your iPhoto library, add pan and zoom effects to it, and choose how long you want the photo to show in your movie.



- A** *Ken Burns Effect:* Use these controls to set up pan and zoom effects for your photographs. Turn the effect off or on by selecting or deselecting the Ken Burns Effect checkbox. Click Start and Finish to set which part of the photo is showing at the beginning and end of the effect. Use the Zoom slider to set the zoom.
- B** *Reverse:* Click to reverse the direction of the pan and zoom effect.
- C** *Preview:* Click to see how the effect looks in the preview monitor.
- D** *Apply:* When you have the effect the way you want, click this button to apply the effect to the photograph. This creates a new clip in the Clips pane that you can add to your movie.
- E** *Duration:* Move the slider to set how many seconds the photograph remains in view.
- F** *iPhoto pop-up menu:* Choose your iPhoto library or an iPhoto album from this menu to view and select photographs. You can drag a photograph from the Photos pane to the clip viewer to add it to your movie.
- G** *Preview monitor:* Use this monitor to set up and preview effects for a selected photograph.

## Audio Pane

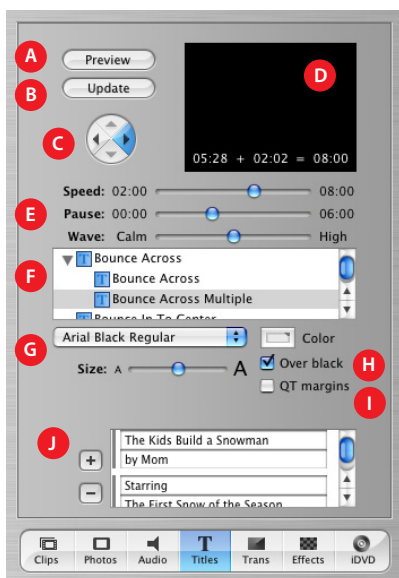
Click the Audio button to open the Audio pane. You can add sound effects, record a voiceover, or import music from a CD or your iTunes music library.



- A** *Audio pop-up menu:* Choose the source from which you want to import music or audio. You can choose a track from your iTunes library or a music CD, or an iMovie sound effect. You can drag a sound effect or iTunes track from the list to the timeline viewer to add it to your movie.
- B** *Eject button:* Click the button to eject a CD from the optical drive.
- C** *Play:* Click the button to play or pause a selected track.
- D** *Search field:* Type some words from a title to search for a particular audio file in your iTunes library. You can search by title or artist.
- E** *Place at Playhead:* Click the button to import a selected track into your movie. The imported track appears in one of the audio tracks in the timeline viewer.
- F** *Record/Stop:* Click the button to record a voiceover or other sound through your computer's built-in microphone or an external microphone. The input meter displays the sound level; sound quality is best if it stays within the yellow range.

## Titles Pane

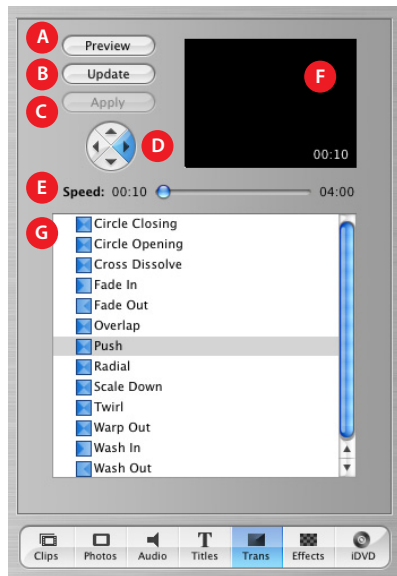
Click the Titles button to open the Titles pane. You can add opening titles, rolling commentary, or end credits. You can also choose a title style, font, and text color.



- A *Preview*: Click to see how the title will look.
- B *Update*: Click to apply changes to a title you've already added to your movie.
- C *Arrow buttons*: For some titles you can click the arrow button to set the direction you want the title to move.
- D *Preview monitor*: Use this monitor to view title styles and preview your settings.
- E *Timing controls*: Move the sliders to set how quickly you want the titles to appear and how long to pause before disappearing. Other options may be available, depending on the title style.
- F *Titles list*: Select a title style for the text you want to add to your movie. Click the arrow next to a title to see more titles in that category. When you're done setting options for the title, drag the title style from this list to the timeline viewer to place the title in your movie.
- G *Font controls*: Choose a font, then move the slider left or right to adjust the font size. Choose a font color using the color box.
- H *Over Black*: Select this option if you want the title to appear over a black video clip instead of one of your video clips.
- I *QT Margins*: Select this option if you plan to export the movie to QuickTime. Deselect it if you want to show the movie on a television screen.
- J *Text fields*: Type your text in these text fields. If the style you choose allows more lines of text, use the plus and minus buttons to add or remove lines of text.

## Transitions Pane

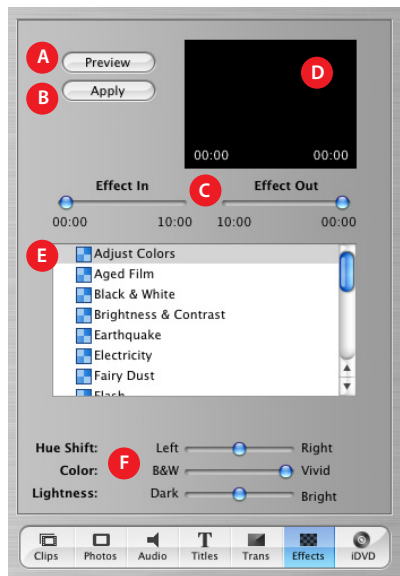
Click the Transitions button to open the Transitions pane. You can add transitions to move smoothly between the scenes in your movie.



- 
- A** *Preview:* Click to see how the transition will look in the iMovie monitor.
- 
- B** *Update:* Click to apply changes to a transition you've already added to your movie.
- 
- C** *Apply:* Click to apply the transition to multiple selected clips in your movie.
- 
- D** *Arrow buttons:* For some transitions, you can click an arrow button to set the direction you want the transition to move.
- 
- E** *Timing controls:* Move the sliders to set the speed of the transition and make other adjustments, depending on the transition style.
- 
- F** *Preview monitor:* View a selected video clip and transition here.
- 
- G** *Transitions list:* Select a transition in this list. When you're done setting options for the transition, drag the transition from this list to where you want it to appear in the clip viewer.
-

## Effects Pane

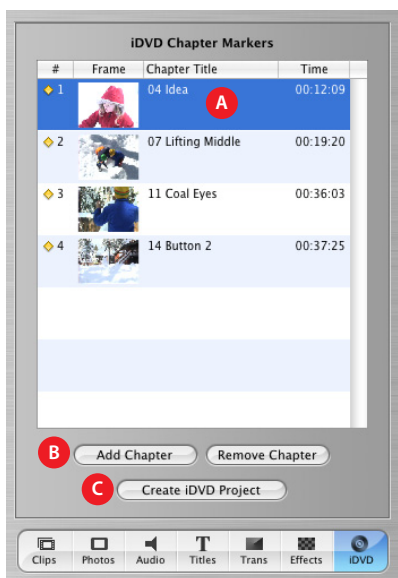
Click the Effects button to open the Effects pane, where you can add special effects to change the look of your movie clips. For example, you can change color video to black and white, adjust the image brightness and contrast, or add playful effects like fairy dust or rain.



- 
- A** *Preview:* Click to see how the effect will appear in the selected clip.
- 
- B** *Apply:* Click to apply the effect to the selected clip in your movie.
- 
- C** *Effect In/Effect Out:* Move these sliders to the points in the selected clip where you want the effect to appear and disappear.
- 
- D** *Preview monitor:* Use this monitor to preview the effects you set up.
- 
- E** *Effects list:* Select an effect in this list to change the appearance of clips in your movie.
- 
- F** *Appearance controls:* Move these sliders to make adjustments to the selected effect. These options will vary, depending on the effect you choose.
-

## iDVD Pane

Click the iDVD button to open the iDVD pane. You can add chapter markers to your movie and export it to iDVD.



- 
- A** *Chapter titles:* A new chapter appears in the list each time you add a marker. Type a name for each chapter that you want to use in your iDVD scene selection menu.
- 
- B** *Add Chapter/Remove Chapter:* Click to add or remove a chapter marker in your movie. If you export your movie to iDVD to create a DVD, the markers you add are used to create scene selection menus in iDVD.
- 
- C** *Create iDVD Project:* Click to export your movie directly to iDVD. This opens iDVD version 3 or later and your movie appears as a project in the iDVD window. If you don't have iDVD version 3 or later on your computer or you don't have a supported DVD drive, this button is not available.
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## Movie Maker Tutorial

- [Overview.](#)
- [Getting the Raw Material for the Movie.](#)
- [Importing the Files.](#)
- [Editing the Raw Material to Make a Movie.](#)
  - [Organizing the Clips.](#)
  - [Trimming the Clips.](#)
  - [Adding Titles.](#)
  - [Video Effects and Transitions.](#)
  - [Adding Narration and Audio File.](#)
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- [Miscellaneous.](#)
- [Troubleshooting.](#)

### Overview

There are four basic steps to creating a movie in Windows Movie Maker 2 on a Windows XP computer with the ATI Allinwonder board and an attached VCR:

- Get the original images, sounds, and film clips on the computer;
- Import them into a Movie Maker "collection;"
- Edit the clips by arranging them in order, trimming them, adding titles and narration and any special effects; and
- Render the result, converting it into a movie that can be stored on the computer's hard drive, a CD, or the web.

Only the first of these requires the ATI Allinwonder board. The remaining steps can be carried out on any XP computer. The movies can be viewed with [Windows Media Player](#). Campus copyright policies are available online on the [Library website](#) and on the [Dean of Faculty website](#).

### Creating the Raw Material for the Movie

Movie Maker 2 can make use of image files, audio files, and movie files. Image files and audio

files (aside from narration) are created using other applications. We suggest moving them to a folder on your U drive so that they will be accessible from any computer on campus you choose to use. Once you have begun to create a movie using a set of files, do not move them. Movie Maker 2 does not copy these files into a new location when it imports them, but simply makes a pointer to them.

One way to create movie files is to use the ATI board to capture segments of a movie from the VCR. Another is to use a video camera and download from the camera to the computer.


To capture video from a tape, load the tape into the VCR. On most systems, start the **TV** application by selecting it from **Start -> All Programs -> ATI Multimedia Center**. On some systems maintained by the IT department, you will need to go **Start -> All Programs -> Media Tools -> TV**. A large blank window will appear. this will show the video during recording. Beneath that will be the control panel.



While this control gives you many options, most of the time you will only need to use one or

two. The most important is the **Start Recording** icon, , which you use to both start and stop the capture process.

In order to capture video, the TV application must be in the correct mode. The word "Composite" should appear in the center of the screen as shown below. If the screen also

displays "Live," then you need to click the mode icon. , on the far left of the panel to toggle back to the correct mode for video capture.

Start the video using the controls on the VCR. Click the **Start Recording** icon to start the recording process. When video capture begins, the screen turns black for a couple of seconds. Capture begins when the video signal returns. Thus you should begin your capture several seconds before the first frame you want. You may find it easier to pause the video tape (using the VCR controls) just before the point you want to start recording, then click the **Start Recording** icon and finally restart the video. It is better to record more material than you need than to record less. Editing the clip down later is fairly simple.

Once you start recording a status display will appear on the screen. When you have recorded the entire clip, click on the **Start Recording** icon again to end recording. Stop the videotape.



The box below summarizes the steps in video capture.

- Load the videotape.
- Start the TV program.
- Start the videotape.
- Go to the point in the tape where you want to start recording.
- Begin the capture with the **Start Recording** icon.
- End the capture with the **Start Recording** icon.
- Stop the videotape.

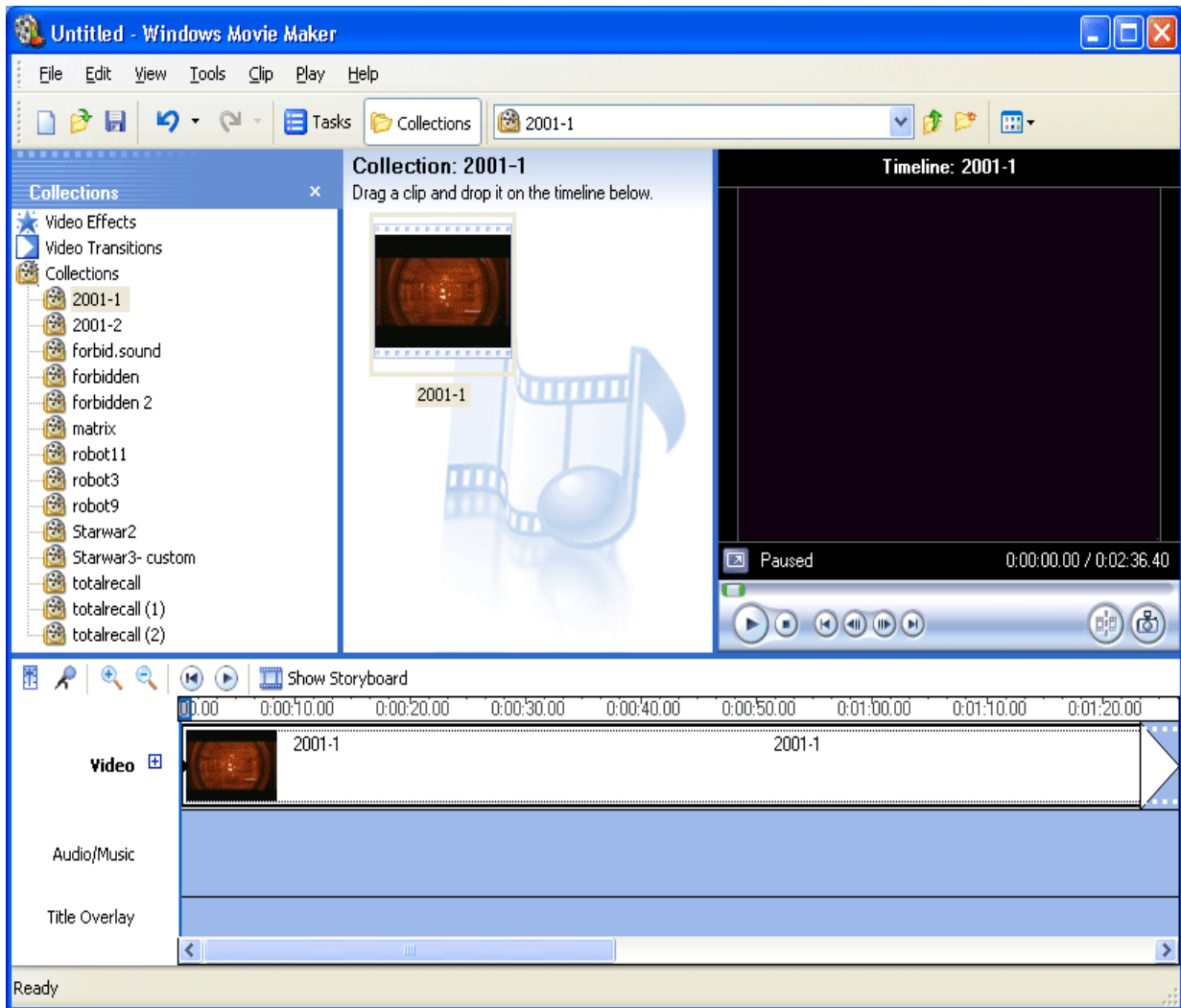
When you are finished capturing the video sequences you want, exit the TV application. The video segments you've captured will be stored in the **My Documents/My Videos** folder on the computer with filenames like "Composite (Dec 9).wmv." You should probably rename these files to something that will help you remember the contents of the clip. Remember to keep the ".wmv" ending on the filename. You may also want to copy the clips to your U drive for safety. This also allows you to edit the clips on another computer.

If instead of capturing video from a videotape, you want to download it from a video camera, this can be done in a couple of different ways. The details depend somewhat on the camera you are using. One way is to connect the camera to the VCR using a cable with red, white, and yellow connectors at one end, and plug those connectors into the red, white, and yellow jacks on the front of the VCR. Play the movie in the camera through the VCR and capture it just as you did with the videotape.

## Importing the Files

To import the files into Movie Maker, start Movie Maker and select **Import** from the **File** menu. Browse to the files you want to use and import them one by one. As you import the files, you can have Movie Maker you have the option of having Movie Maker automatically divide the movie segments into smaller individual clips to facilitate editing. If you want clips created, make sure the small box at the bottom of the Import screen is checked. If you want your video segments intact, uncheck the box. Remember that "importing" files in Movie Maker means creating links in Movie Maker to the actual locations of the files. To work with the clips in Movie Maker, you must have access to the original location. For example, if the files are on a CD, you must keep the CD in the CD drive.

As you import the files, you will see them appear in the center pane of the program display as illustrated below. The left pane lists your various collections. The center pane shows the clips you've imported. The right pane displays a working version of the clip or clips you're working on. The bottom pane is the storyboard. In this screen shot, the first image has been dragged into place on the storyboard.



If you had Movie Maker divide a clip into segments during import, the video segments will appear as a series of smaller clips in a reasonably intelligent fashion. During the editing process, you will be able to arrange the clips in order, trim them, and join multiple clips together. You will also be able to combine clips from different collections. None of the editing you do will affect the original clips. What Movie Maker stores is the sequence of operations you perform on them.

You can also import image and sound files into collections.

## Editing the Raw Material to Make a Movie

This is where you'll probably spend the most time. The basic steps here are:

- Moving the clips and still images into place on the storyboard;

- Trimming the clips so that they include just the frames you want;
- Adding short titles or credits at the beginning or end of the clips or between them;
- Adding special effects and transition effects; and
- Adding narration and audio files.

Since this process can take some time, you may want to stop and store what you've done so that you can pick it up later. This is done by saving the current state of your movie as a project file. Project files have a .mswmm extension.

## Organizing the clips

If you have divided a larger clip into segments, you may find it easier to work with them if you give them meaningful names before you begin arranging them on the storyboard. To rename a clip, right-click on the name and select **Rename** from the drop-down menu.

The first step in creating a movie is to drag the clips and any still images into place on the storyboard at the bottom of the window. If you click on the magnifying glass icon with a + next to it, the timeline for the storyboard will enlarge so that you can see a thumbnail image right on the storyboard. If at any time you decide you want to switch clips or images around, you can simply drag them into a new position with the mouse.

The storyboard at the bottom of the screen can be viewed in two slightly different formats. The storyboard view shows larger thumbnails of all clips and titles with an easy-to-see place to drag transition effects and to display the effects that are in place. The timeline view compresses the thumbs and provides a timeline ruler that shows the duration of all clips. In addition, the timeline must be used when adding audio. The magnifying glass icons compress or expand the timeline view.

At any point, you can view the entire movie so far in the video pane on the right.

## Trimming the clips

The next step is probably trimming the clips, although you can jump back and forth between the various editing tasks as you like. Select a clip on the storyboard. If you need to trim a substantial segment, you can do so right on the storyboard by clicking on the clip and then dragging the small triangles at either the beginning or end of the clip towards the middle.

If you want better control, you can play the clip frame by frame and specify the exact beginning and end. Begin by selecting the clip you want to trim on the storyboard. The first frame will appear in the right-hand window--the one that is black in the screen shot above. Play the clip until you reach the approximate point at which you want to clip, then use ALT+LEFT-ARROW and Alt+RIGHT-ARROW to move frame by frame until you find the exact spot. Now go to the **Clip** menu and select **Set Start Trim Point**. Do the same to locate the point at which you want to trim the end and then select **Set End Trim Point** from the **Clip** menu. Remember that your original clips are not trimmed. What is stored are the instructions for where to trim each clip. The clip menu also allows you to split a single clip into two clips or to combine two adjacent clips together.

## Adding titles

Frames containing text can be added before or after any clip or still image. Each frame can hold only a limited amount of text, so inserting multiple paragraphs of text may require using several successive frames with few sentences on each frame. You can specify the color of the text and background as well as the text font. It is also possible to make the text partially transparent and position it on top of the film. Finally, this can be used to make a simple black delimiter frame that can be copied and pasted between a sequence of clips.

To add titles, select the appropriate clip in the storyboard. Select **Titles and Credits** from the **Tools** menu. Select whether you want to add the text before or after that clip. The next screen will display the text entry window(s). As you enter text, the font size will adjust automatically to fill the frame. Unfortunately, the text-entry boxes can hold more text than may appear. This is font-dependent.

There are a variety of title animations, some of which use one text window and others that use two text windows. The default is for two text windows - a title area and a subtitle area. The various formats and animations allow for a variety of different presentations of text. A little experimentation here will illustrate the possibilities.

It is also possible to superimpose titles on the clips to function as subtitles. However, they are automatically positioned in the lower third of the screen and it's not possible to fine-tune their placement for good visibility.

## Video Effects and Transitions

The **Tools** menu is also used to create video effects and video transitions. Video effects are effects applied to the actual video clips and include effects such as rotating the frames, color-cycling, as well as fades. They are applied to clips. Transitions are inserted between clips and affect the way the end of one clip turns into the beginning of the other. Some examples are page curls, wiping up, swirling in, etc. Again, a little experimentation here will illustrate the possibilities.

## Adding Narration and Audio Files

In order to add narration or audio files to your movie, you must have the storyboard in timeline view. If you want to add an audio file, use the **File** menu to import it into your collection. Then drag it down to the **Audio/Music** layer in the storyboard. If the audio clip is longer than the movie, you can clip the end of it by using the mouse and dragging the right end to the left. To fade the audio in or out, select **Audio** from the Clip menu and turn on or off the options. Adding an audio track with NOT mute any sound in the clip itself.

Since narration uses the same channel as audio, you cannot have both music and narration at the same time. To create narration clips, select **Narrate Timeline** from the **Tools** menu. Position the vertical selection bar at the point in the storyboard at which you want the narration to begin. Start playing the movie, press the **Start Narration** button and begin speaking into the microphone. Click stop narration when you're done. When you click the **Done** link, you'll be asked to give a title to the narration clip, and will return to the normal view. Your narration clip

will be in the collection and will be positioned in place on the storyboard.

## Rendering the Final Result

The final step is to have Movie Maker render all the clips, stills, transitions, and effects into a movie. This can take several minutes to an hour or more depending on the length of the movie, so plan for it. If you have done a lot of work and don't want to have to start from scratch again if you want to make a small change, save your work as a project first. Then if you do decide to make a change, you can pick up from this point.

To render your movie, select **Save Movie File** from the **File** menu. A wizard will walk you through the few steps needed. You will be asked where you want to save the movie too. Almost always you want to select **My Computer**. Even if you plan to put the movie on the web, don't select **The Web** option. This option only allows save to a few commercial web services.

Next you we need to name the move. ".wmv" will be added automatically if you don't include it at the end of the movie name. You can also select the file location where you want to store the movie.

Finally you get to select the format of the file. Most of the time "Best quality for playback on my machine" is fine. If, however, you expect someone to download the movie over a modem, you may want to try one of the other possibilities that will general small files by either reducing image quality or image size.

## Miscellaneous

To capture a frame of a movie as a still, move to that frame using ALT plus the left and right arrow keys. Select **Take Picture from Preview** under **Tools**. You will be prompted to save the image and it will automatically be imported into the current collection.

It is possible to use Movie Maker to create an automatic slideshow of images. Import the images into a collection, arrange them on the storyboard and insert title frames and transitions if you want. If you would like the images to remain on view for longer than the default, you can drag the right side of the image to the right in the storyboard.

## Troubleshooting

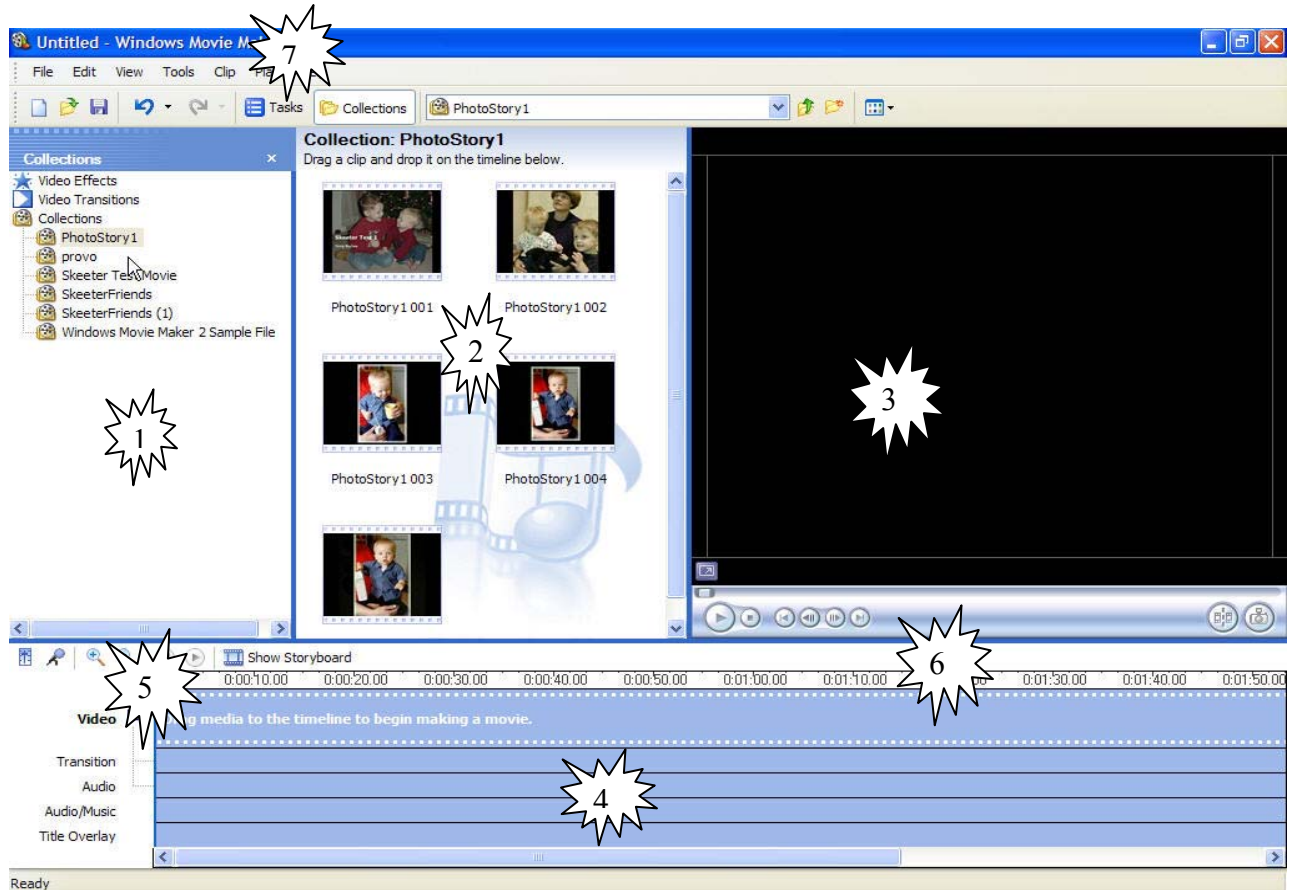
1. The **Help** menus are generally quite good in Movie Maker.
2. Some videotapes are copy-protected with Macromedia. This may not be marked in any visible way on the tape itself. However, if you try to capture it, the captured video may loop every couple of seconds.
3. There have been reports of systems crashing because of conflicts with files called **DIV\*.AX** and of problems running on systems with hardware accelerators.

4. Check the [cable connections](#).

5. There is an active newsgroup for Movie Maker questions, microsoft.public.windowsexp.moviemaker. You can subscribe to newsgroups in Netscape Messenger.

## Section 1: The Windows Movie Maker 2 Interface

Before making our first movie in WMM2, let's familiarize ourselves with the interface. Here are the basic areas of the WMM2 workscreen:

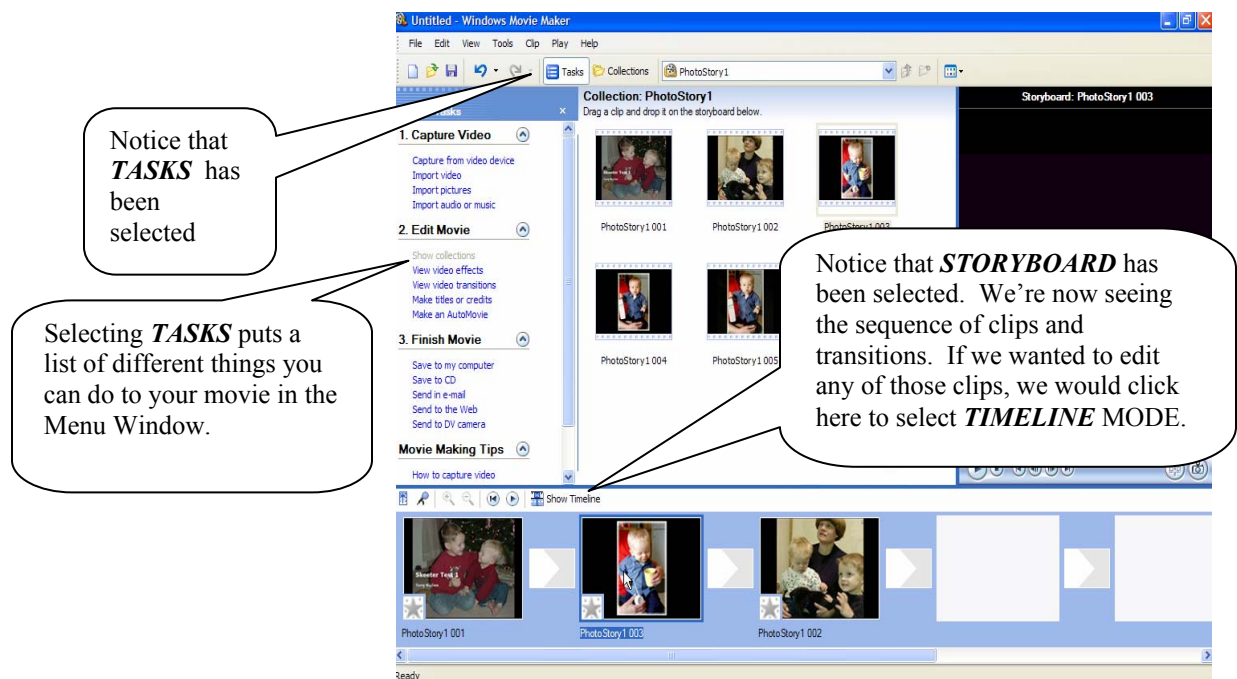


1. This is the "Menu Window" in WMM2. If you've selected **TASKS** at the top of the screen (see #7), this window will show you a list of tasks you can do in Movie Maker. (Import video, make snappy titles or credits, etc.) If you've selected **COLLECTIONS** at the top of the screen (#7 again), you will see sets of different elements you can add to your movie (transitions, clips, etc.)
2. This is the "View Window" or "Collections Window." Here you will see thumbnails of what you have selected in the Menu Window. In our example, I have highlighted "**Photostory 1,**" in the Menu Window, and the View Window is showing the clips contained in that folder.
3. This is the "Preview Window." Notice that it has VCR-type controls to play media (#6.) You can preview clips here by selecting the folder that contains them in the Menu Window (#1) then double-clicking on the thumbnail of the clip in the View Window (#2) that you would like to see. Or, if you have started building

your movie on the Timeline (4), you can use the play controls to preview your movie.

4. This is the ***Timeline-Storyboard*** area, sometimes called the “Editing Window.” You toggle between timeline and storyboard mode by clicking on the mode-changing button (to the right of #5.) Notice that in our illustration, we are looking at the Timeline (which shows us the duration of each clip, the audio tracks, etc.). If we were looking at the storyboard mode, we would see a “building block” chart showing each clip, transition, etc.
5. The mode-changing button. (See #4.)
6. VCR play controls for the preview window. (See #3.)
7. Switch between ***Collections*** and ***Tasks*** in the Menu window. (See #1.)

If all of this feels too complex, just remember that the two choices that affect how WMM2 looks are items 5 and 7. Here’s how the screen would look if I had selected ***Tasks*** instead of ***Collections*** at the top of the screen, and ***Storyboard*** instead of ***Timeline*** above the Editing Window:



Once you’re familiar with the interface, you’re ready for your first movie. In the next section, we’ll cover making a simple movie in WMM2 from start to finish.

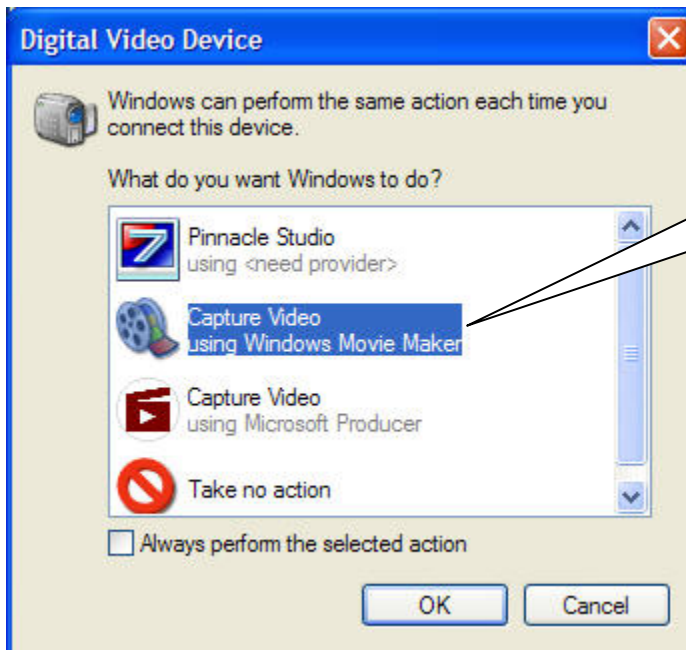


## Section 2: Making A Movie

### Part 1: Importing video

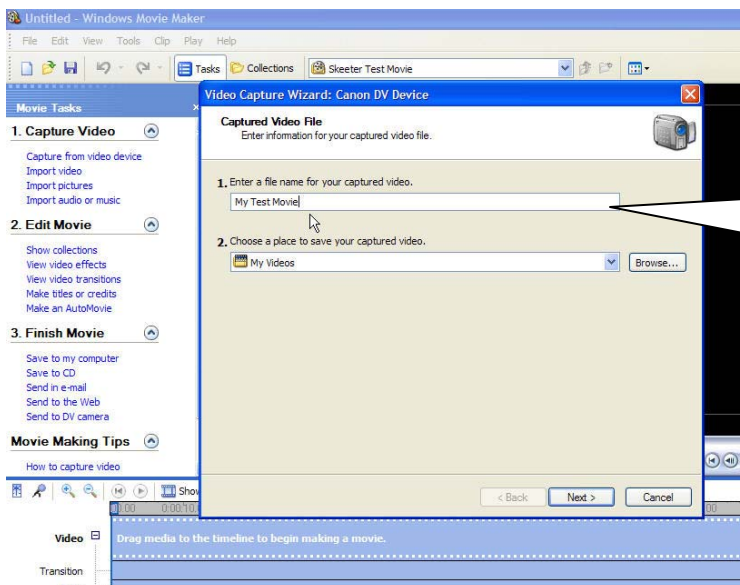
Before you start WMM2, plug your camera into the computer using the firewire cable, and turn the camera on in VCR (play) mode.

Windows XP should recognize the camera, and will pop up this dialog box:



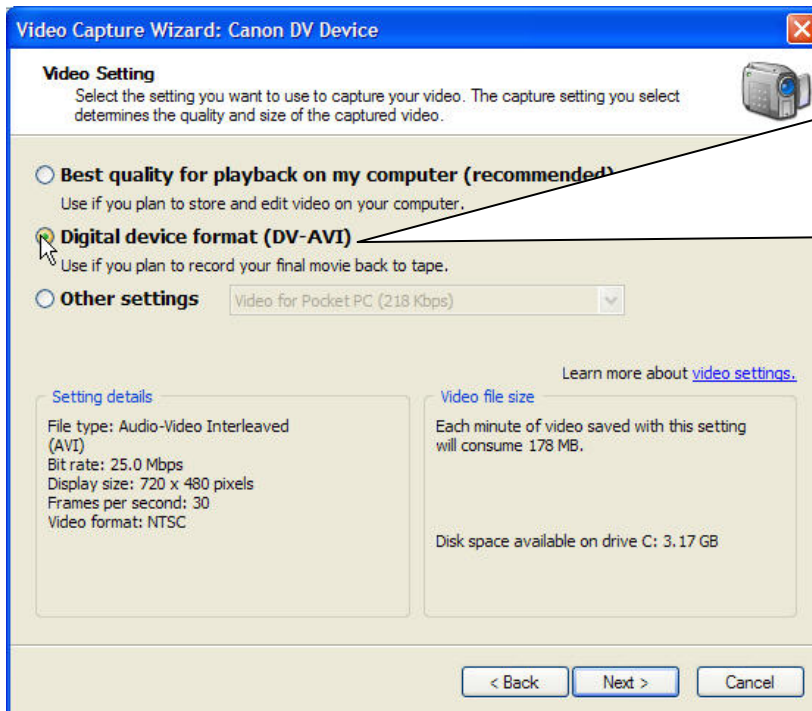
When you select the option to **Capture Video using Windows Movie Maker**, XP will start Movie Maker for you and check your camera.

Movie Maker 2 then asks you a few questions about how to capture and store your video.



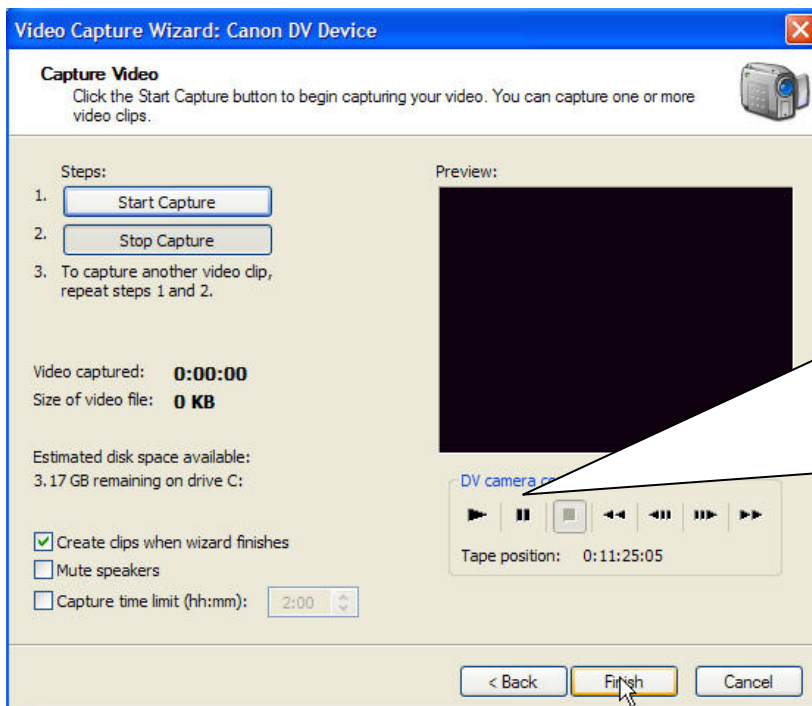
Assign a name to your captured video file, tell the computer where to store it, then click the **Next** button.

Next you set the quality of your capture.



Recommended: Select the DV-AVI format when importing video. It is more compatible with other editing systems, and you keep the option of being able to store your finished movie on tape. This is a more widely recognized format than the top choice on this screen, but the files do take a lot of space. (Note that the **Video File Size** box in the lower right tells you that each *minute* of captured video will take 178 Mb of space.)

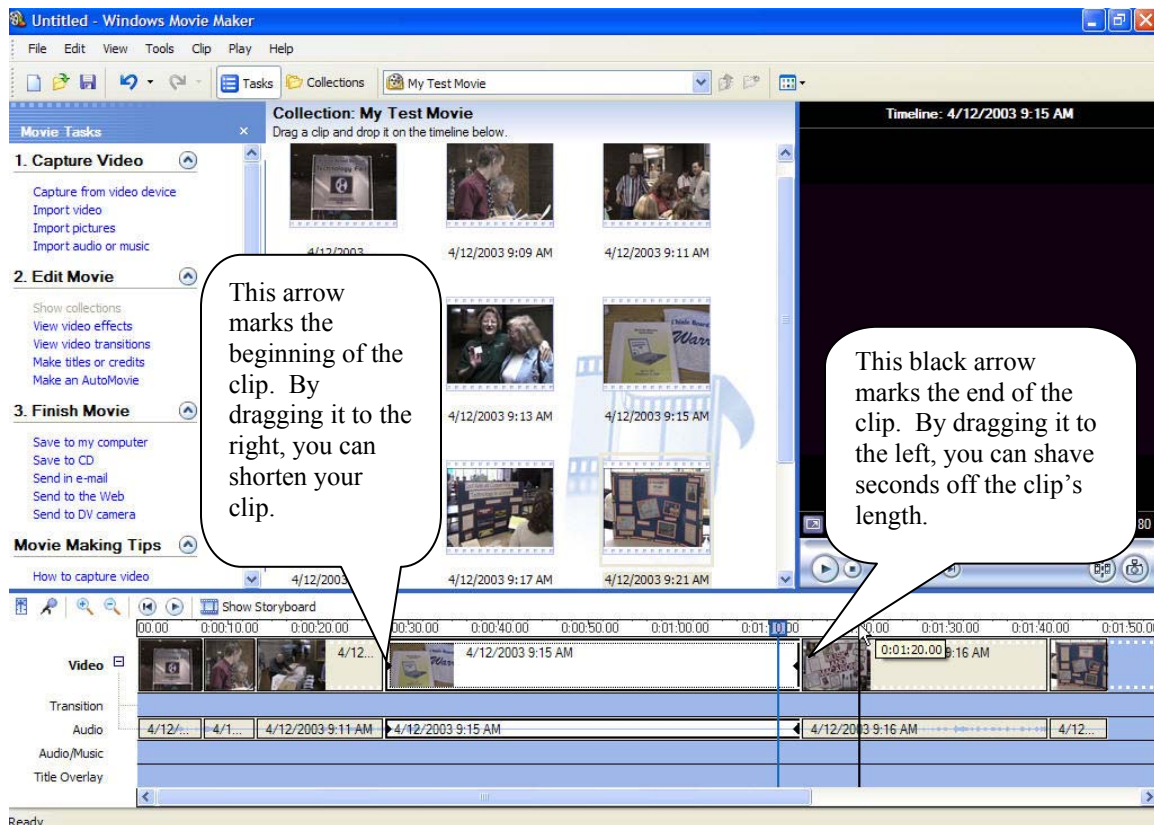
When you click on the *Next* button at the bottom of this box, you are taken to the Main Capture Screen.



Use these Play Controls to cue the tape to the start of the segment you want to import. Then click the **Start Capture** button to the left of the screen. When you have captured your clip, click **Stop Capture**. You may then use the Play Controls to cue the tape to the next segment to capture, or if you're done, click the **Finish** button at the bottom of the window.

## Part 2: Making a rough cut of your movie.

Now that you have clips to work with, you can make a “first draft” of your movie by clicking on the clips showing in the Collections Window and dragging them to the bottom of the screen to place them on the timeline. Here’s how your screen should look after you’ve dragged a few clips to the timeline:



First, edit your clips for length. To make a clip shorter, you can drag the “Inpoint” and “Outpoint” markers on the left or right side of the clip.

Notice that the audio you recorded with your video was also imported, and it is on a separate track on the timeline. You can delete the audio, or change its volume. You can also make the audio fade in at the beginning of a clip and/or fade out at the end by right-clicking on the audio segment you want to fade and selecting the appropriate command.

WMM2 allows you to add background music by selecting the *Import audio or music* option in the menu window.

### ***Part 3: Spicing your movie up with transitions, effects, titles and end credits.***

Hint: it's best to use these enhancements sparingly. Throwing too many jazzy titles, transitions and effects into your movie will detract from its content, and it will annoy the viewer.

WMM2 offers a wide variety of transitions you can use to smooth the jump from one clip to the next. To access them, go to the Menu Window, Section 2: Edit Movie, and select ***View Video Transitions***. You can then preview a transition by double-clicking on it in the Collection Window. Once you find one you like, drag it to the timeline to add it to your movie. (Hint: some people find it easier to add transitions when they're in ***Storyboard*** mode.)

Effects differ from transitions in that they are applied to the whole clip, not just the end points. They are a useful, quick way to fix problems with your clips (you can lighten video that is too dark, for example) or apply an artistic effect. The procedure for using them is similar to using transitions: in the Menu Window, Section 2 select ***View Video Effects***. Preview the effect, then drag it over a clip to apply it. (Hint: some effects can be applied multiple times to a clip. For example, you can apply the "Lighten" effect several times to make the clip lighter, or you could apply the "Slow Down" effect several times for a really sloth-like slow-mo.)

WMM2 has an extensive selection of titling and end credit effects. To access them, go to Section 2 of the Menu Window again and select ***Make Titles or Credits***. Spend some time experimenting with the options here. You can change the color, font, and style of the text, the color or content of the background, and the animation. Select the style that's best for your movie. (Hint: be sure to check out the "Scroll-Perspective" animation for titles---with very little effort, you can create "Star Wars" style scrolling text titles.)

### ***Section 3: Saving your movie.***

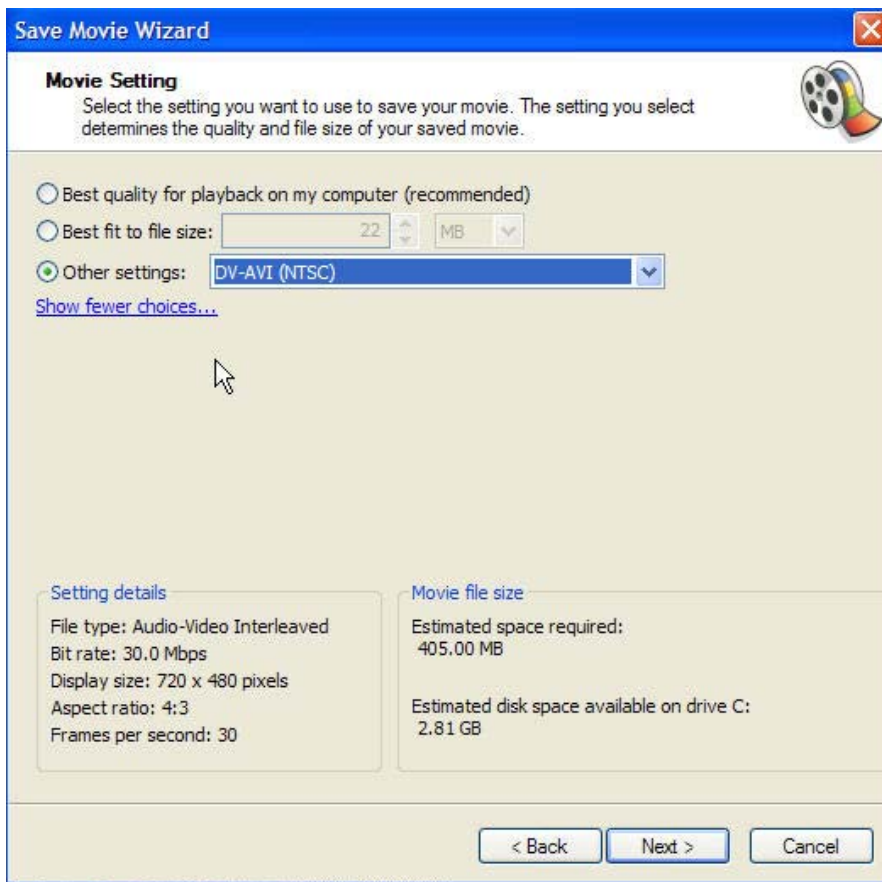
There are several different options for saving your finished movie. They are listed under Section 3 of the Menu Window. Select the appropriate storage option, and follow the prompts.

There are a few things to keep in mind about saving movies. In WMM2, the default format for saving your movies is WMV format. This compresses your movies so they take up less space on the hard drive or CD you're sending them to. For example, a movie that takes 20 Mb of space in WMV format can easily take more than 400 Mb. if you save it in the AVI format.

There are some drawbacks to WMV, however. Sometimes you won't get as high quality playback of your movie as you would in AVI format, especially if your movie contains

still photos, animations, or a lot of other special effects. Also, many video editing programs have problems importing and using WMV format files because of their severe compression.

If you're saving to your hard drive and can spare the space, it is recommended that you store your finished movie in AVI format. (I also recommend that you back up your finished movie to a new tape in your DV camera, since that will store it offline in AVI format so you could recapture parts or all of it later.) To store your movie on the hard drive in AVI, you should select the ***Save to My Computer*** under the Save Movie options in the Movie Task Menu. When you do, this window should appear:



When you first see this window, it will probably be showing the default selection of ***Best Quality for playback on my computer*** (the first button.) Click on the scroll window by ***Other Settings*** to bring up a menu of other choices, and select ***DV-AVI (NTSC)*** as shown in the illustration.

# ***5 Phases of Development***

## ***Phase 5***

### **Distribution**

Premiere  
Evaluation

Student Name \_\_\_\_\_

## Storyboard Rubric

Objective	4 – excellent	3 – good	2 – fair	1 – poor	Pts
<b>Organization of boards</b>	All sketches are organized and numbered in a logical sequence based on the final script.	Most sketches are organized and numbered in a logical sequence based on the final script.	Some sketches are organized and numbered in a logical sequence based on the final script.	None of the sketches are organized and numbered in a logical sequence based on the final script.	
<b>Setting</b>	The setting is discernable in all sketches	The setting is discernable in most of the sketches.	The setting is discernable in some of the sketches.	The setting is not discernable in the sketches.	
<b>Action</b>	In all of the sketches you can tell what action is taking place.	In most of the sketches you can tell what action is taking place.	In some of the sketches you can tell what action is taking place.	It is difficult to tell what action is taking place in most of the sketches.	
<b>Color</b>	All of the sketches use multiple colors that are appropriate for the visual setting	Most of the sketches use multiple colors that are appropriate for the visual setting	Some of the sketches use multiple colors that are appropriate for the visual setting	The sketches do not use multiple colors that are appropriate for the visual setting.	
<b>Communicates ideas visually</b>	The sketches visually communicate the final script very well.	The sketches visually communicate most of the ideas from the final script.	The sketches visually communicate some of the ideas from the final script.	The sketches do not visually communicate the ideas of the final script very well.	
				<b>Total Points for Storyboard</b>	<b>20</b>

Student Name \_\_\_\_\_

### ***Video Rubric***

<b>Objective</b>	<b>4 – excellent</b>	<b>3 – good</b>	<b>2 – fair</b>	<b>1 – poor</b>	<b>Pts.</b>
<b>Transitions</b>	Has at least 4 transitions that are consistent with the storyline based on the script and storyboards.	Has at least 3 transitions that are consistent with the storyline based on the script and storyboards.	Has at least 2 transitions that are consistent with the storyline based on the script and storyboards.	Has at least 1 transition that is consistent with the storyline based on the script and storyboards.	
<b>Titling</b>	Has at least 4 titles that are consistent with the storyline based on the script and storyboards.	Has at least 3 titles that are consistent with the storyline based on the script and storyboards.	Has at least 2 titles that are consistent with the storyline based on the script and storyboards.	Has at least 1 title that is consistent with the storyline based on the script and storyboards.	
<b>Storyline/plot</b>	All video clips fit the storyline based on the script and storyboards. Clips are just long enough to make each point clear. The pace captures audience attention.	Most video clips fit the storyline and tell a complete story based on the script and storyboards	Video clips used need to be edited to assist in telling the story from the script and storyboards.	The video clips do not fit the storyline laid out by the script and storyboards.	
<b>Audio and/or Narration</b>	The audio is clear and effectively assists in communicating the main idea.	The audio is clear, but only partially assists in communicating the main idea	The audio is inconsistent in clarity (too loud/too soft/garbled) at times and insufficiently communicates the main idea	Audio is cut-off and inconsistent. It does not assist in communicating the idea of the video	
				<b>Total Points for Video</b>	



# ***Filmmaking in the Classroom***

## **Resources**

Worksheets

Articles



Cinematographer



Cinematographer



Cinematographer



Cinematographer



Cinematographer



Cinematographer



Spokesperson



Spokesperson



Spokesperson



Spokesperson



Spokesperson



Spokesperson



Director



Director



Director



Director



Director



Production  
Assistant

## What does a DIRECTOR do?

- suggest where the spokesperson should sit/stand
- decide where the camera should be
- start the action!
- handle the mouse and keyboard during editing

# What does a CINEMATOGRAPHER do?

- hold the camera
- adjust the volume
- swivel the camera to film scenes just right
- press “record” and “stop”
- rewind the tape to play back scenes you recorded

# What does a PRODUCTION ASSISTANT do?

- know how to be a director, spokesperson, and cinematographer
- fill in as a substitute if someone is absent
- be the assistant to the producer (the teacher)
- become an expert on the computer (to help the teams)

# What does a SPOKESPERSON do?

- practice speaking lines until they're memorized
- look into the camera lens (or other special place)
- speak LOUDLY!
- appear in the movie



Names: \_\_\_\_\_



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Names: \_\_\_\_\_

[illegible]

Name:

Lines:

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Name:

Lines:

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Name:

Lines:

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Name:

Lines:

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# Let's think about acting...

(a rubric to guide actors)

Too quiet	Too loud	Just right
Too fast	Too slow	Just right
Reading cue cards	Forgot the lines	Just right
Too fidgety	Too frozen	Just right
Too excited	Too boring	Just right

# Let's think about filming...

(a rubric to guide directors and  
cinematographers)

Blurry	Just right	
Too much background noise	Just right	
Camera in a weird position	Just right	
Too much wait time	Just right	
Too shaky	Just right	
Background too busy	Background too boring	Just right
Too close	Too far away	Just right

What is our purpose for  
making the movie?

\*

\*

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\*

\*

Who is our target  
audience?

\*

\*

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# How Digital Filmmaking Develops Higher-Order Thinking Skills

*By Nikos Theodosakis*

If you scan the Hollywood box office report (variety.com) you will find the names and rankings of the top grossing films in the United States. Monsters Inc., The Phantom Menace, Shrek, Harry Potter, and other multi-million dollar success stories.

But here's another list of important films produced this last year. My Family's Stories, Choices, My Dog Spot, Interview with a Civil War Soldier, My Family's History, Triangles, Friends.

Though these obscure cinematic experiments may never break box office records, sell buckets of popcorn, or spin off merchandising memorabilia, they are among the most important films being made today. In addition, the most influential thinkers of the future, our children, are creating them.

Classrooms are turning into studios, teachers into producers and students into filmmakers. Inexpensive and easy to use digital cameras and editing software have enabled educators to explore the use of digital video as a serious tool for teaching and learning.

While the benefits of filmmaking in the classroom encompass student awareness, creativity, engagement, technical learning, it also provides a beautiful bridge to life outside the classroom. This article looks at how digital video production and filmmaking projects in the classroom can help develop higher-order thinking skills. In particular, I would like to explore how filmmaking provides a framework for the development of higher-order thinking skills, from the students' creation of the original idea to their first presentation and beyond.

## Visioning

Filmmaking is about turning the intangible into the tangible. Regardless of the size of the film, Ben Hur or My Science Experiment, movies start with that wonderful thing called "the idea." As the idea formulates, a vision of the final film begins to develop. The challenge for students is to hold a clear picture in their mind of what they want to communicate and then to guide their film towards that vision. The goal is to put that vision on the screen.

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## Digital Filmmaking, continued

It is also about learning the process of looking at where you want to be, looking at where you are now, and constructing a plan to connect the two. It is about exploring not only what the vision is, but also what the vision does. How it moves you into action, gets you up on your feet, and makes you advance in order to crystallize what you have in your mind. It is important that students develop visioning skills for both their present and future worlds. We need students to see how ideas can be transformed into action and how if they want to reach for something, if they can dream it, they can do it.

### Research

When audiences go to see a film in the theatre, they seldom realize how much research goes into the making of the movie. In the formative stages, writers, directors and producers research story ideas that relate to the idea they are imagining. They interview people, read books, clip magazine articles, scan the Web, draw upon personal experiences and look to uncover information from anywhere they can, knowing that key secrets can be revealed in the least likely of places.

Once an idea is decided upon, the filmmakers research in order to get a better understanding of the context and content of the story. One of the characters in my wife Linda's latest screenplay works with autistic adults. Linda has been researching autism on the Web, interviewing caregivers working with autistic adults, and has arranged to work-shadow some of these caregivers and their clients. The more she researches, the more it informs her story.

As information exponentially explodes all around us, the ability to effectively mine that information also increases. If we are to prepare students to make sense of all that information, then familiarization with good research skills —knowing where to find things, how to find things, who to ask, how to collect it and how to organize it —becomes another important skill developed by filmmaking.

### Problem Solving

Turning the vision into the finished movie on screen requires a seemingly endless journey into problem solving, not only in terms of what do we want to show, but also, how we will show it.

As students set out to create their films and discover obstacles of time, of equipment and of other resources, they learn to identify and solve their own problems, and to own the process for finding solutions. It is then that these multiple, real world filmmaking challenges have become a great opportunity to experience real world problem solving.

### Logic

Sometimes when I am putting together a film, I feel like I'm in the middle of a giant algebraic equation. So many decisions in filmmaking are affected by so many other decisions. IF it is sunny we WILL shoot Scene 16 by the lake with all the actors and props required for that scene, BUT IF it rains THEN we will shoot the interior scene in the cabin living room. There are so many decisions that are interwoven into all of the other decisions that filmmaking requires the development and utilization of good logical thinking skills.



## Digital Filmmaking, continued

In the classroom the process of filmmaking requires students to imagine what they will need to make their movie. As they are asked to develop a strategy of planning, production and editing, they start assembling a logical series of events and resources to make it all come together. Regardless of whether this process is articulated on paper, or simply considered in their minds, that process will occur.

### Planning

A feature film is very rarely filmed in sequential order. This is because time, money and other resources can be better utilized if similar scenes are shot at the same time. Often these scenes are grouped by location, or by actors, or by equipment availability.

Filmmaking in the classroom enables students to explore their own planning and time management skills as they estimate, budget, schedule, analyze and revise their filmmaking projects.

The results of poor or proper time management can be examined and used as yet another learning tool in this process, so that there is a constant self-analysis of what works and what does needs a new approach.

### Analytical

Another skill which is invisible to the movie audience, but which is essential to the filmmaker, is the ability to critically analyze information. As a director, when I am standing on a film set, my role is to take in all the information about the scene that I have researched and all the new information that I am receiving from the actors, the crew or the location. Then I analyze it against my vision for that particular scene. It is about looking at all the information and deciding what should be included and what should be left out. It is about filtering on your feet.

Later, during the editing process, I will look at multiple takes of the same shots, and multiple shots of the same scene, and decide, after I look at all of this information, which film footage best illustrates what I am trying to communicate and what I want to explore. As long as we continue to be overloaded with information and continual decision-making, the development of analytical processes will be an important survival skill for students.

### Beyond the Classroom

Now more than ever, filmmaking in the classroom can play a strategic role in engaging student learning and in encompassing multiple educational objectives. The goal here is really to enable students to experience these skills in the classroom as part of the preparation for them using it in their own worlds beyond the classroom. When students have opportunities to solve problems, budget, schedule, analyze, research, plan, imagine and communicate their ideas to others, they are building real world skills. And although their films may never be up on the big screen, the experiences learned and the skills developed will make them much more than better filmmakers, they will become better thinkers, and it seems that ultimately, this is what this planet needs.

# Digital Filmmaking, continued

## About the Author

*Nikos Theodosakis is a filmmaker, educator and author of the book The Director In The Classroom: How Filmmaking Inspires Learning (Tech4Learning, Inc., [www.tech4learning.com](http://www.tech4learning.com)). You will find more information on filmmaking in the classroom as well as links to the resources mentioned in this article at his website [www.thedirectorintheclassroom.com](http://www.thedirectorintheclassroom.com). Contact him by e-mail: [nikos@thedirectorintheclassroom.com](mailto:nikos@thedirectorintheclassroom.com)*

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