



Computers And Technology

Digitizing Your Old Movie Film to play on a Television DVD Player

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Digitize Your Old 8mm or Super 8 Movie Film

Considerations:

1. Cost. How much are you willing to spend?
2. Quality. What quality level do you want? You may remember the movies as being very clear and crisp. They weren't. You can't make a bad quality movie into a high quality movie.
3. Editing. Do you want to edit the digital movies to create a custom movie of "just the best scenes?"
4. Time. How much time are you willing to spend to improve the finished product?



How Much Film Do I Have?

Most movies were shot on 50' reels. However, many of us spliced them to create longer movie viewing times.

- 3 inch reel (50 feet) – Viewing Time 3 mins 15 secs
- 5 inch reel (200 feet) - Viewing Time 13 mins 2 secs
- 6 inch reel (300 feet) – Viewing Time 19 mins 30 secs
- 7 inch reel (400 feet) – Viewing Time 26 mins 2 secs



Basic Cost

- Costco is among the cheapest. They charge 11 cents per foot with a \$17.99 minimum. Applies to 8mm, Super 8 & 16mm.
- Same process for VHS, S-VHS, VHS-C, Hi-8, Betamax, etc. Costco charges \$17.99 for 2 tapes, 2 hours total.
- On the internet there are scores of mail in locations. Most are more expensive than Costco but many offer more flexibility and quality.



Three Choices

- 1. Normal Guy.** Take your film to Costco. Watch DVDs. Place everything in a box and give it to your kids.
- 2. Somewhat Geek.** Take you film to Costco. Rip DVDs so that movie can be edited. Edit movie and burn to new DVDs.
- 3. Total Geek.** Send your film to processor that will record digital footage on a hard drive. Options for HD, color correction, etc are available. Edit digital footage and burn to new DVDs. Quite Expensive.



Process Used by Somewhat Geek.

- Take your film to Costco. (conversion takes about 2-3 weeks.)
 - They send the film to YesVideo in Santa Clara (same provider for CVS, Wolf Photo, Rite Aid, Walgreens, etc.)
- You get a DVD with a title of your choice that plays on your Television.
- Rip and edit movies. Burn back to DVD for playing on your Television.

Downsides:

- No flexibility. You get the DVD in Mpeg 2 format with some basic titles.
- They will not give you non-compressed format for editing.
- They put your film on one of their reels and won't put it back on your reel.



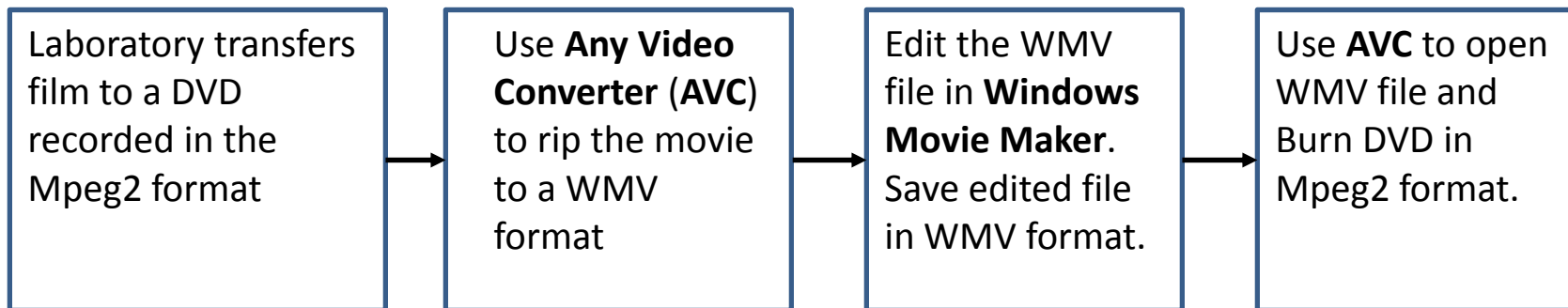
Technology of Movie DVDs

- The digital image of your movie film is first recorded by the Processing Company as a MJpeg (movie Jpeg) file
- MJpeg files are uncompressed and very large. They are converted to **Mpeg 2** files so that they will fit on a DVD and play on a television DVD player.
- **Mpeg 2** is called a “lossy” format and is around 10 times smaller than the MJpeg source file.
- You cannot edit **Mpeg 2** files directly. You must first “convert” them to a **WMV** or **AVI** file. This converted WMV file will be of somewhat lower quality than the original **Mpeg 2**.
- Once edited your files must be reconverted back to the **Mpeg 2** format. The final product will be slightly lower quality than the original.



Process Flow to Digitize and Edit Movie and Burn to a DVD

Note: There are many software programs available to do this work. I have selected two that are **free** and fairly straightforward.





How to Rip and Edit Movies from a Mpeg 2 DVD

- Step 1: Download **Any Video Converter (AVC)** software program.
http://www.any-video-converter.com/products/for_video_free/
- Step 2: Open the **AVC** program and insert your movie DVD. Open the movie DVD to see the files. Add the video files into **AVC**.
- Step 3: Select an output filetype of WMV, make certain the aspect ratio is set to 720x480 (8mm film aspect ratio) and click on “Convert.”
- Step 4: The **AVC** program will convert the DVD video file to WMV and save it on your hard drive.



Ripping with Any Video Converter

Use Any Video Converter to Rip Files.

Insert DVD and click to Add Video Files.

Name	Duration	Format	Frame Size	FPS	Status
VTS_01_1.VOB	00:14:38	0x10...	720x480	30 fps	

General

Item Name: I:\VIDEO_TS\VTS_0...

Output Duration

All clip duration: 00:14:38
Start Time: 00:00:00
Stop Time: 00:14:38

Video Options

Video Codec: WMV V9
Frame Size: 720x480
Video Bitrate: 768

Frame Size

WMV-V8 only support 320x240, please choose WMV-V9 if you want change the frame size.

Select WMV and set frame size to 720x480



Insert DVD and open Folder Titled "VIDEO_TS"

Files Currently on the Disc (13)

AUDIO_TS	12/19/2008 10:06 ...	File folder	
Photobook	12/19/2008 10:06 ...	File folder	
Pictures	12/19/2008 10:06 ...	File folder	
Sheet	12/19/2008 10:06 ...	File folder	
VIDEO_TS	12/19/2008 10:09 ...	File folder	
data.zip	12/19/2010 10:15 ...	Compressed (zipp...	3,903 KB
Extra.zip	9/7/2010 11:49 AM	Compressed (zipp...	2,061 KB



Select the VOB file that is the largest size.

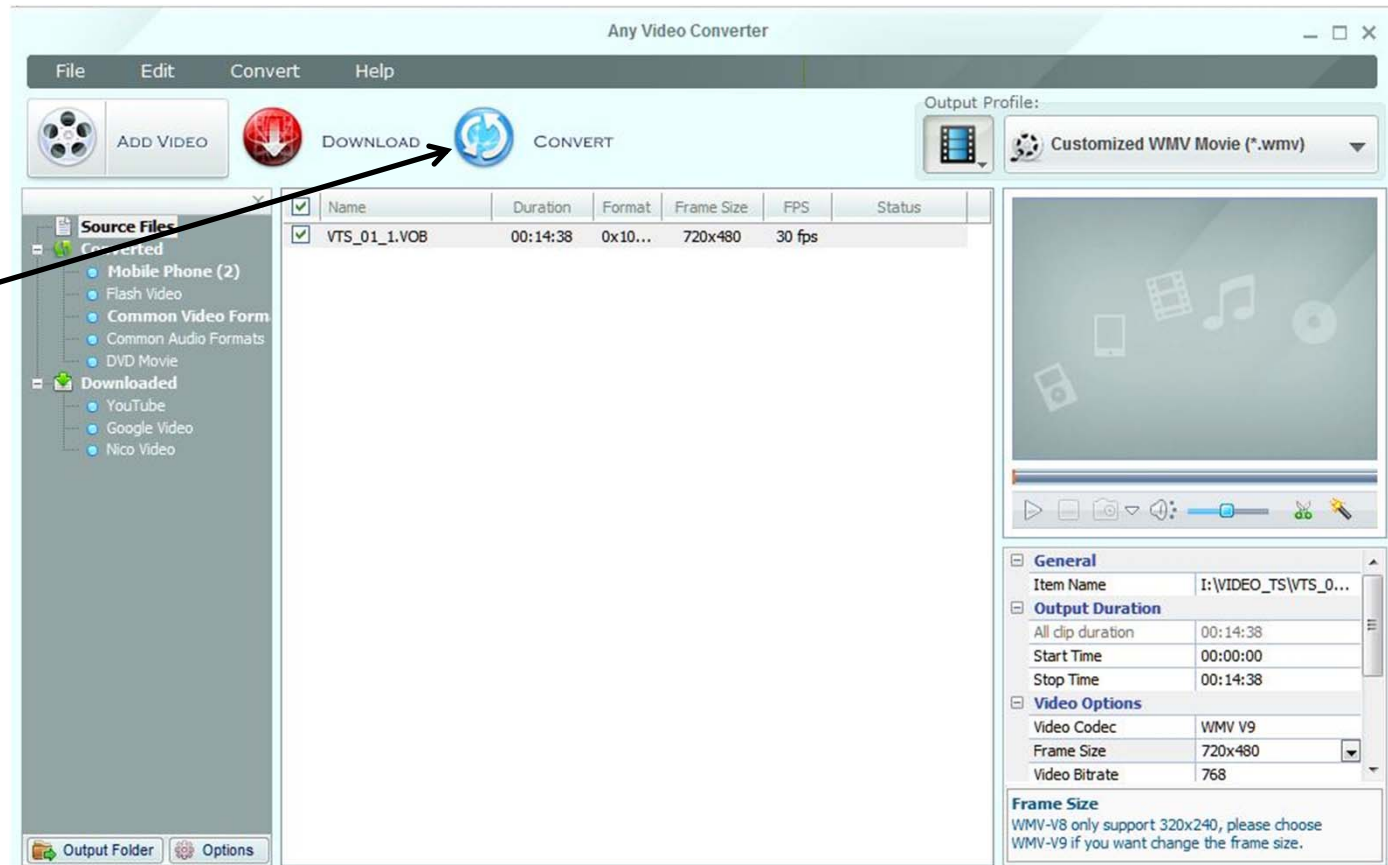
Files Currently on the Disc (19)

VIDEO_TS.BUP	12/19/2010 10:20 ...	BUP File	14 KB
VIDEO_TS.IFO	12/19/2010 10:20 ...	IFO File	14 KB
VIDEO_TS.VOB	12/19/2010 10:20 ...	VLC media file (.v...	210 KB
VTS_01_0.BUP	12/19/2010 10:19 ...	BUP File	32 KB
VTS_01_0.IFO	12/19/2010 10:19 ...	IFO File	32 KB
VTS_01_0.VOB	12/19/2010 10:19 ...	VLC media file (.v...	31,384 KB
VTS_01_1.VOB	12/19/2010 10:19 ...	VLC media file (.v...	458,186 KB
VTS_02_0.BUP	12/19/2010 10:19 ...	BUP File	18 KB
VTS_02_0.IFO	12/19/2010 10:19 ...	IFO File	18 KB
VTS_02_0.VOB	12/19/2010 10:19 ...	VLC media file (.v...	298 KB
VTS_02_1.VOB	12/19/2010 10:19 ...	VLC media file (.v...	42,158 KB
VTS_03_0.BUP	12/19/2010 10:19 ...	BUP File	18 KB
VTS_03_0.IFO	12/19/2010 10:19 ...	IFO File	18 KB
VTS_03_0.VOB	12/19/2010 10:19 ...	VLC media file (.v...	210 KB
VTS_03_1.VOB	12/19/2010 10:19 ...	VLC media file (.v...	44,028 KB
VTS_04_0.BUP	12/19/2010 10:20 ...	BUP File	18 KB
VTS_04_0.IFO	12/19/2010 10:20 ...	IFO File	18 KB
VTS_04_0.VOB	12/19/2010 10:20 ...	VLC media file (.v...	210 KB
VTS_04_1.VOB	12/19/2010 10:20 ...	VLC media file (.v...	43,558 KB

Note: If in doubt, select all of the VOB files. Most are add-ons created by YesVideo Laboratories and can easily be deleted later on.



Ripping with Any Video Converter



Click on
"Convert"
and let files
encode to
WMV format.

Specify Output
folder so that you
can find the
finished product.



Editing WMV files with Windows Live Movie Maker

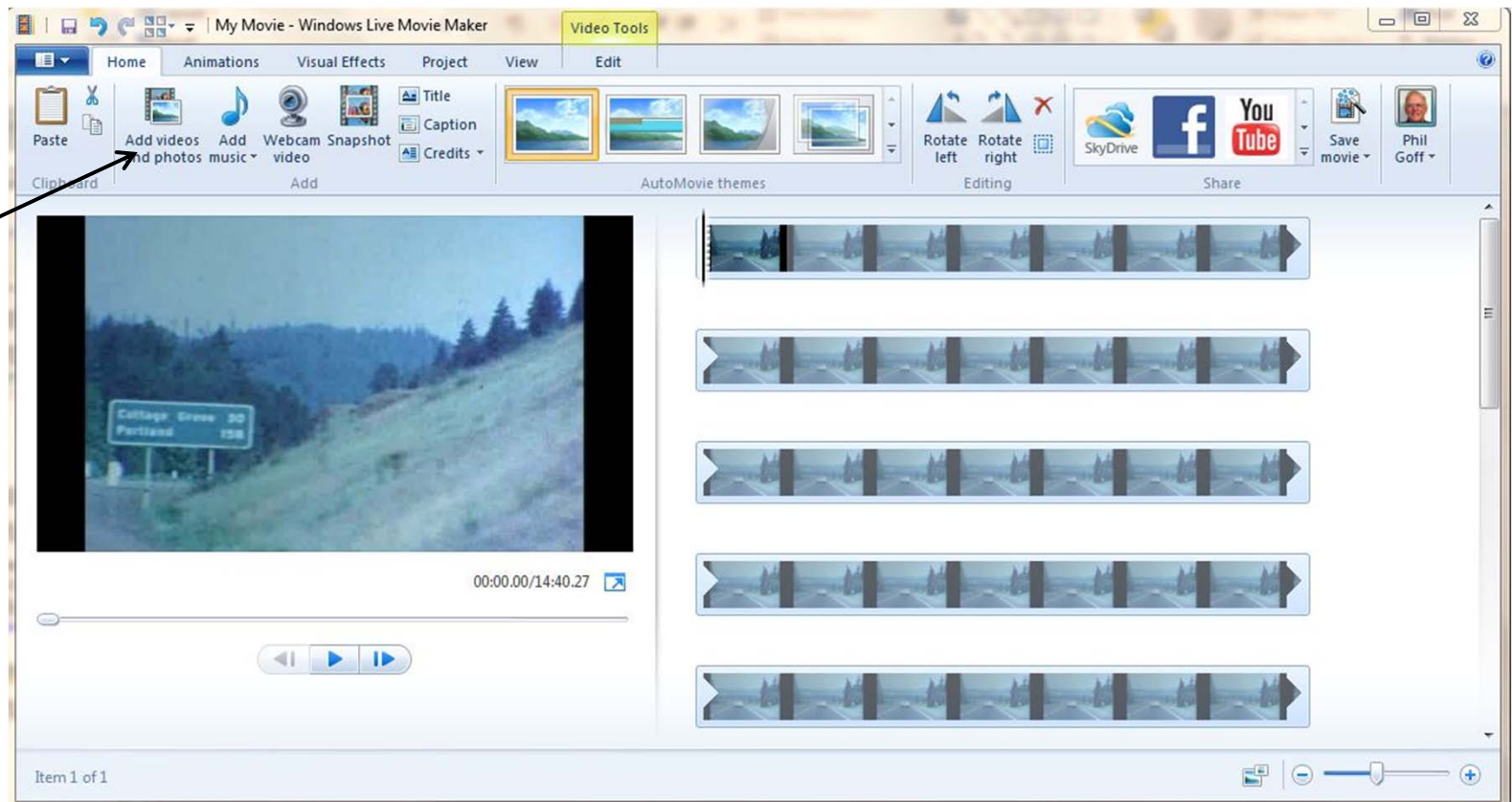
- There are many Movie Editing programs. Photoshop Premier Elements is well known and does an excellent job but is complicated and expensive.
- Windows Live Movie Maker is free with Vista and Win 7 and does a basic job. (There is an earlier version available for Win XP download.)
- Open Windows Live Movie Maker
Note: This is a free Microsoft program but must be downloaded from Windows Live Essentials

<http://explore.live.com/windows-live-essentials?os=other>



Editing with Windows Live Movie Maker

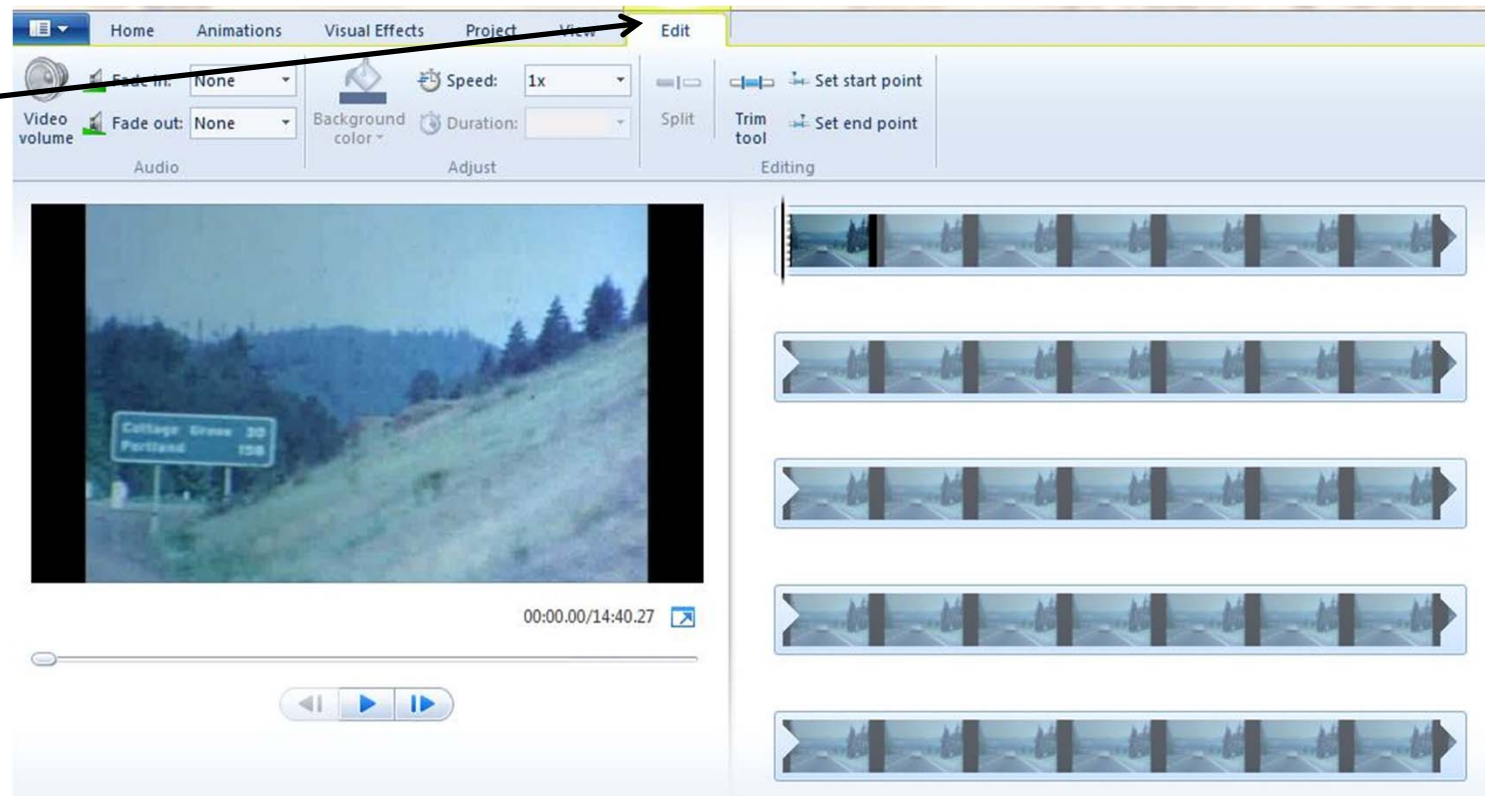
Add the WMV files created from the DVD using **AVC**.





Editing with Windows Live Movie Maker

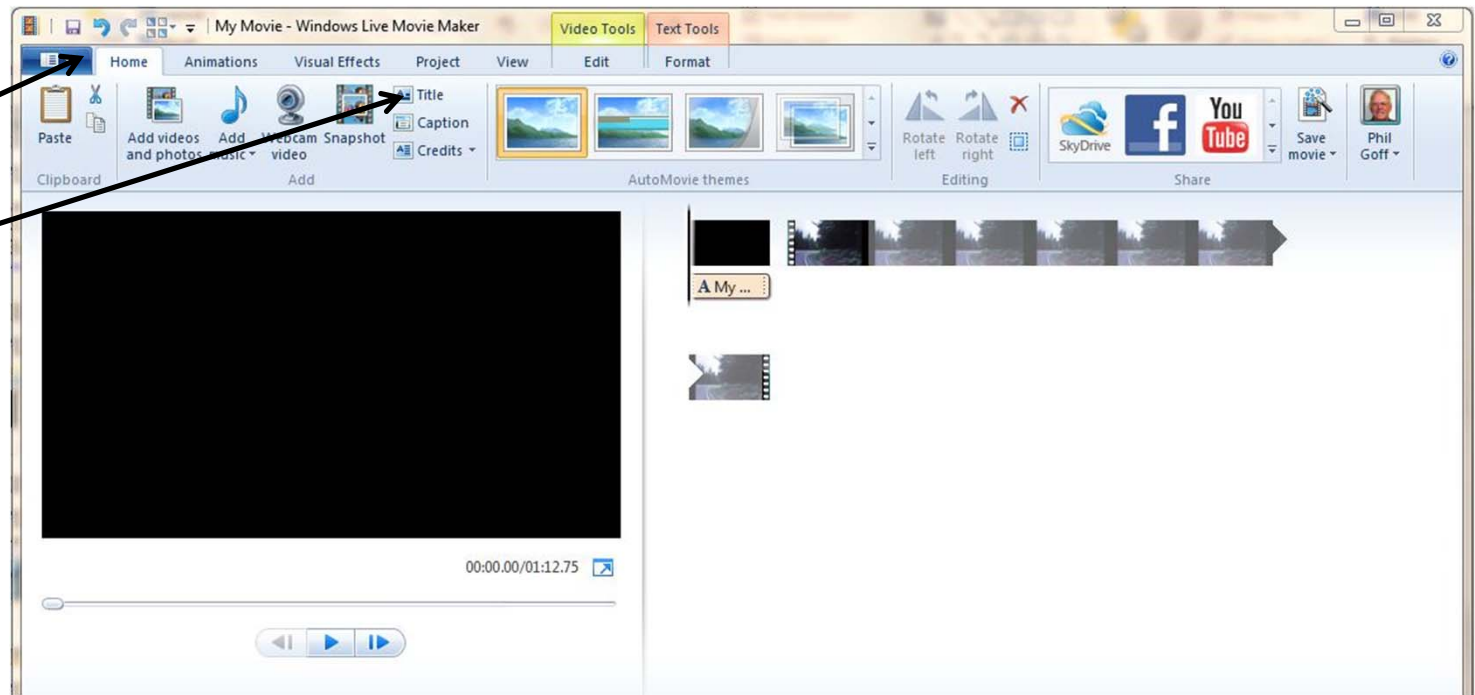
Select “Edit” tab and use video screen to see what you want to keep. Cut into segments to be retained.





Editing with Windows Live Movie Maker

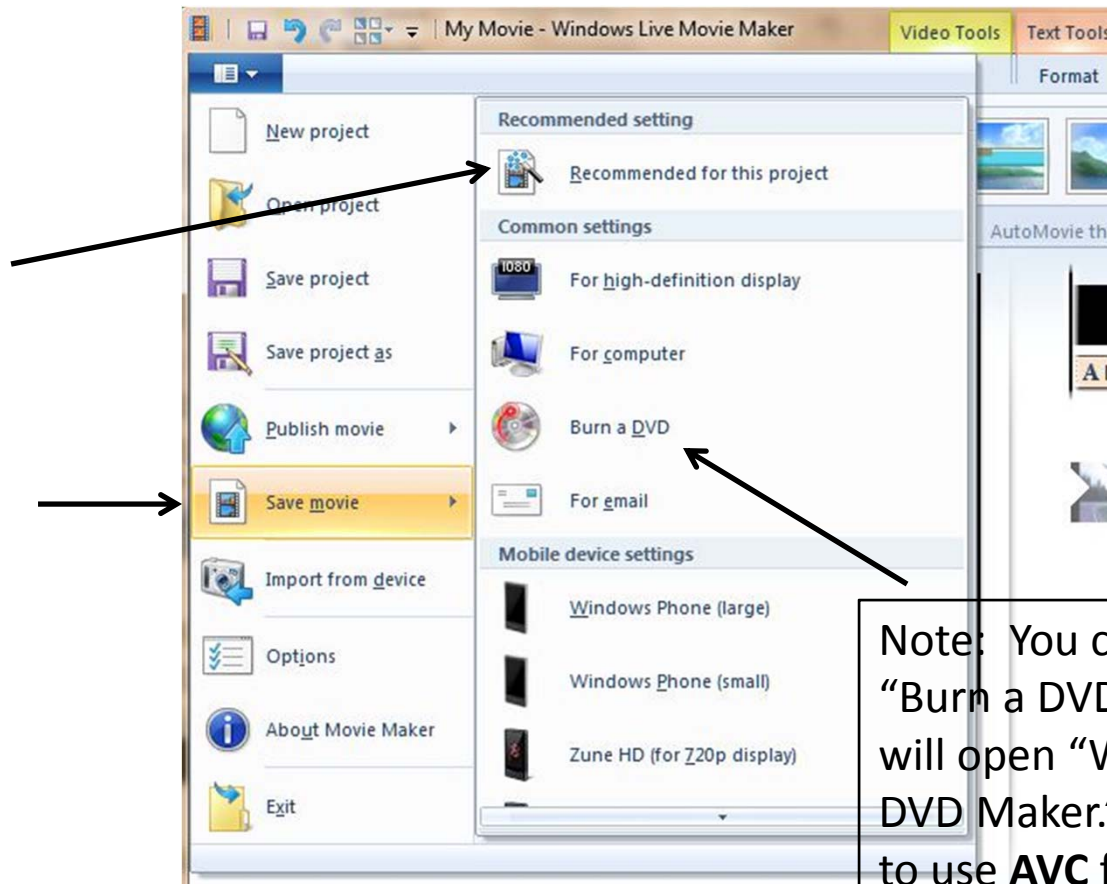
Select "Home" tab and then Title to create opening screen and other enhancements.





Save Edited Movie

Save edited movie using the “Recommended for this project” This creates a WMV file.





Open Any Video Converter to Burn DVD

File Edit Convert Help

ADD VIDEO DOWNLOAD CONVERT

Output Profile: DVD video NTSC Movie (*.mpg)

Name	Duration	Format	Frame Size	FPS	Status
Small Cut from Costc...	00:01:12	WMV3	720x480	1000 ...	

Add edited WMV file.

Click on Convert

Select Burn icon

General

Item Name	E:\8mm Movie Film\S...
Output Duration	
All clip duration	00:01:12
Start Time	00:00:00
Stop Time	00:01:12
Video Options	
Video Codec	mpeg2video
Frame Size	720x480
Video Aspect	Auto

Output Folder Options



Any Video Converter will burn a new DVD in Mpeg 2 format.

Select your DVD drive and insert a blank

Name the DVD

Burn

DVD Configuration
Please configure your DVD settings.

Recorder:

Support Media: CD-R, CD-RW, DVD-RAM, DVD+R, DVD+RW, DVD+R Dual Layer, DVD-R, DVD-RW, DVD-R Dual Layer, random-access writes, Blu-ray media, Blu-ray Rewritable media

Disc Type:

Write Speed:

Video Size:

Disc Label:

Click on "Burn" to finish



Observations and Considerations

- If you want top quality, find a Company that will record the uncompressed files directly to a portable hard drive. This is more expensive. Email me for a list of possible names.
- You may be able to find Companies on the internet that are cheaper than Costco. Don't know about their quality.
- If you video quality is poor (like mine) then no amount of enhancement will make it very good.
- If you do have your films digitized, don't throw the film away. Ten years from now the digitizing process may be so good that they will convert them to BluRay with 3D.