Steps to WMV encoding in HCenc.



1. Create a project in Womble MVW. This is especially useful with titles.

One can export from MVW, which is great for stream copy:

Export [1:02:06]	, Test.mpg X	Emerei	A M
General Vide Reference	Audio Monitor	Motion Estimation Search	Algorithm Smart Fast Horizontal Distance 15 Vertical Distance 15
Stream of Resolution Frame Rate	 MPEG-1 → MPEG-2 Expert Width 704 Height 480 29.97 Frame/Sec ▼ 	Filter	Temporal Noise Reduction Scene-Change Detection Inverse Telecine Closed GOP
Bit Rate (kbits/s)	 Constant Bit Rate Variable Bit Rate (Peak) 	GOP Size PAR	N 15 M 3 V
Clock Base	Cross Cross Base Zoom	Field Order	No Change

Sometime there is encoding, as seen on details:

Export [1:02:06] , Test.mpg	X MPEG Video
0000	
General / Video / Audio / Monitor	🗾 🏟 Export MPEG Detail Information 🔀 🔀
TTY Drablaw	File Format : MPEG-2 Program [1:02:06] (62.27 / 1866)
M Preview Start	Audio Video
Otan	Stream : MPEG-2 Stream : MPEG Layer 2
Paula	Resolution : 704 x 480 Channels : 2
	Frame Rate : 29.97 Sample Rate : 48 KHz
Automs	Bit Rate : 5744 Kbps (VBR) Bit Rate : 256 Kbps
Tompk	Project Encode Map 📕 Re-Encode 📕 Stream Copy
Tempi	Video : Re-Encode - 57.9746% , Stream Copy - 42.0254%
Deta	
	Audio : He-Encode - 54.1484% , Stream Copy - 45.8515%
Press "Start" to build a MPEG-2 movie.	
	Close
*	

Encoding takes much longer than stream copy. In this example, a 61 second clip with 58% reencoding took 5 minutes and 40 seconds.





MVW gives an option to use the "Maximum Quality" encoding algorithm.

The maximum quality encoding takes longer : the 61 second clip with 58% re-encoding took 32 minutes and 55 seconds. My laptop is old and slow (1.3 GHz centrino), but that's ridiculous.



Even worse, the result is only marginally improved over a poor encode. Here is a frame capture using the regular encoding (speed at 3x plus a title to cause need to re-encode).



And here is the same frame capture with the Maximum Quality looks only marginally better (the lights on the top right is a good point):



That is why I looked for an alternative encoder. Here are the steps to the process.

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M M M M	Save as type:	MVW project file(*.wbp)		Cano	el //		

1. To use HCenc, you must save the project as a wbp in MVW.

2. Install AVIsynth and HCenc. Note where MWV is located.

3. Write a short AVIsynth script as follows (saved as womble.avs):

LoadvfapiPlugin("C:\Program Files\Womble Multimedia\MPEG Video Wizard DVD\WbpVFAPI.vfp", "womble") womble("C:\Documents and Settings\Tim\Desktop\Video Project\Trip to Safeway\Trip to Safeway.wbp") flipvertical converttoyv12

lancosresize (720, 480)

input: c:\dooject\trip to safeway\womb	le.avs		lo	ad ini file	
output: C:\Dop to Safeway\Trip to Safew	vay.m2v		sa	ave ini file	
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4. Open HCenc. Set Files, bit rate, aspect ratio, and hit encode.

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File Edit Forma	≿ View Help						
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	encoder	settings					
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	source	stats					
nr. of frames width*height: fps: nr. of frames frames to end	to encode:	1866 640x480 29.970 1866 0 - 1865					
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🐮 Start 🔁 Tr	ip to Safeway	🔰 step 9. JPG - Paint	Process Explorer - S	HCgui 0.23	📑 Trip to Safeway.log	«	9:28 PM

HCenc processing times are much shorter than MVW when re-encoding, as this 61 second project took 3 minutes and 41 seconds.

5. Because HCenc omits the audio, we have to get that. Go back to WMV, and export the audio as a MPEG1 audio file.

<u>Report</u> [1:02:06]	Test audio.mpg	×
General Vide	Audio Monitor	
Project File MPEG File Separate	C:\DOCUME~1\Tim\LOCALS~1\Temp\M	
File Format	MPEG-1 Audio	
Save Range (All) [1:02:06]	MPEG-1 Video MPEG-2 Video MPEG-1 System VCD (MPEG-1 System)	
Output(MB)	MPEG-2 Program SVCD (MPEG-2 Program) MPEG-2 Transport	
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This is fast, and took only 7 seconds for this 61 second clip, even with 54% audio re-encoding.

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Automatic	
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[0:07] <c:\documents and="" audio.mpg="" s\test=""> Done!</c:\documents>	
Done	
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6. Start a blank project in MVW. Add the HCenc video (m2v file) and the just produced audio (mpg file).

Time Line - Untitled wbp "	
□ □	00:01:02 29.97 00:01:02:05
Trip to Safeway.m2v	+
Test audio.mpg	

7. Export the simple project. This is a stream copy, and goes very quickly. This 61 second clip took 8 seconds in MVW.



8. Enjoy the result, which is much cleaner. Below are two comparable frame captures (using PowerDVD, and the source and result are both interlaced).

Here is the frame capture compared to above, first using HCenc.



And then against the Womble MVW encoder:



Note: When Womble would have just a stream copy, HCenc will still re-encode, losing some quality and taking longer. Here is a a stream copy frame from HCenc:



And then from MVW with the stream copy:



Notice the colors are faded and slightly less crisp, but not too bad.

Enjoy, and thanks to 45tripp for telling me the hard part.