Appendix VII:

Editing & publishing in Sony Vegas Movie Studio+DVD

This is from a "How to Video Edit" technical document we made for some of our summer workshop participants. Currently the movies are screen captures so you can follow the actions. The text in this appendix will become the voiceover to a clickable menu of movies people can browse to learn how to video edit. The sample project in The Editor section can be downloaded in its entirety here (warning: 11Mb in size). You can download and uncompress the files within Windows XP or you can use WinZip to do the job. Use the images and compressed video files to follow the instructions.

Video Editing Highlights

Working with the video editing program is the next step after importing photos, images, and other videos into your project. In this section, we will walk you through how we built a short digital story around Eddie's clip. This section is meant to encapsulate the functions we introduced over the course of the workshop. We recommend that as a digital storyteller you explore other editing functionality in Vegas Movie Studio.

1) Editing shortcuts - Cursor Actions
A list of important keyboard and mouse controls are listed below:

Keyboard
S – Split track
V – Brings up audio volume indicator (*aka* audio envelope)
Space – Play and Pause
← and → Arrow Keys – Allow for movements along the timeline

Mouse
Scroll Up/Down – Zoom in and out of timeline
Right Click – Holds options for inserting new tracks or other editing options

PLAY>> CURSOR_ACTIONS.MP4

In addition to those keyboard and mouse functions it is important to distinguish between the main editing cursors you have at your disposal. First and most importantly, the **playback cursor** tells the user where they are along the timeline. This long cursor is distinct from all other and can be used to pinpoint where to cut a clip.

Importing a sample clip, in this case the one with Eddie Anderson's quote, you can see the other four principal cursor functions. The most common and useful cursor is the solid **arrow select tool**. This cursor allows you to move content along the timeline or between tracks. It is also useful for highlighting regions, which will be covered in more detail in the next section.

The next three cursor tools can be activated automatically by placing the cursor over three main areas of a clip. Placing the cursor along the top edge of a clip changes the arrow to **a hand** with the index finger extended vertically along a double arrow. This **opacity adjustment tool** adjusts the opacity levels to create a transparent clip. On an audio track the **gain adjustment tool** behaves much like the opacity adjustment except it lowers the volume on the clip.

Placing your cursor on the upper corners of any video or audio clip bring up what appears to be a quarter circle with a double arrow. This **fade offset tool** adjusts the time a fade effect takes place along the clip. Remember – it is helpful for viewers when you fade into and out of a clip.

Lastly, along the vertical edge of a clip a rectangular icon with a horizontal double arrow indicates the **trim tool** is activated. This trimmer allows for minor adjustments to be made at the ends of a clip. You can extend a clip inward, or outward. A small caveat to this feature is that it will repeat a clip if it is trimmed beyond its natural start or finish.

2) Setup media bins - Import from DV camera - Import media

PLAY>> SETUP_IMPORT.MP4

The following instructions allow you to import from a digital video camera, and in lieu of a camera, you may also download the source files for this project that that you could download and uncompress. Once you do that, go to the VIDEO directory import the clips to the video bin in your Vegas project to continue the set by step instructions.

Start with a new project and save it in your **DST_FOLDER** directory. At this point make sure your camera is set to **Play mode** and that the FireWire cable is connected to both the PC and camera. Go to **File→ Capture Video** and select the **Use external video capture** option to bring up the video capture window. A **Verify Tape Name** dialogue box appears so that you can label your clips. We name the tape **DST** since the content came from a storytelling workshop.

Using the **Deck Control** (buttons on the capture window that emulate the play, stop and fast-forward/rewind functions) play the tape until you reach the start time of a clip you have logged. You may have to replay the clip until you get the start location without cutting the clip too short. Hitting **Capture Video** plays the clip from the current position and records until you press stop on the deck. Once you have captured all necessary clips, you can exit from the capture program.

After you have finished capturing, it can be helpful to organize media bins in your Vegas project. This step is much like the process in Section B. On the lower left portion of the screen is a **Project Media** tab that holds **All Media** and **Media Bins**. The names are self-explanatory, but *the Media Bins can contain bins for IMAGES, MUSIC, and VIDEO to streamline editing time.*

After selecting a media bin in Vegas go to **File→ Import→ Media** to bring all of the audio, images, video into their appropriate bins.

3) Preference Changes - Normalizing Audio

PLAY>> PREFS_NORM.MP4

Before you begin editing, change the preferences by going to **Options→ Preferences**. In the **General** tab scroll down to an option that when selected makes your spacebar a play/pause button rather than a play/stop button. Checking the box to **Make spacebar and F12 Play/Pause** assures the cursor stops at the current position instead of rewinding to the beginning of the playback. This is an adjustment that makes playback and editing more intuitive.

Using the normal solid arrow, select a video clip and place it at the beginning of the **Video** track. Notice that this action immediately populated the **Voice** track as well. This feature is common with video clips since they carry an audio and visual component. Dropping Eddie's clip into the timeline reveals that its waveform peaks are low. The waveform is a graphical representation of the audio levels within the audio section of the clip. In this case, **right clicking** on

the audio track and going to **Properties→ Normalize→ Recalculate** raises the gain delivering louder and clearer audio. Notice the waveforms are more pronounced.

4) Zooming - Play back - Video Overlays - Pan/Zoom Event
This is a fairly busy clip, but it highlights the final layout of video clips on the timeline. Notice at the moment of placing a clip on a track you can nudge the clip into another creating a smooth transition called a cross-dissolve. The more you nudge one clip into the other the longer the effect lasts.

PLAY>> TIMELINE_PAN.MP4

Zooming in and out of the timeline is critical in the editing process. Placing the **playback cursor** on the timeline and moving the scroll wheel up performs a zoom in while moving the wheel down does the opposite. Notice the zoom is centered wherever the cursor was placed.

You can preview your video edits (including effects) in the preview pane (in real time) on the lower right portion of the program window. By default, the project resolution is 720 pixels wide by 480 pixels high- which is the native digital video resolution for Mini DV. During playback we find a great spot to drop an image taken during last year's DST workshop. Zooming into the timeline we can pin point how far to trim the image out using the playback cursor as a marker.

We can apply a Ken Burns effect by pressing the **Event Pan/Crop** icon on the upper right portion of a clip. *This tool allows you to rotate, move, and zoom into the image or video clip*. Notice within the new window the dotted outline of an "F" appears on top of the clip. This tells you where the camera is located and its magnification level. In this case we will **right click** on the frame and select **Match Output Aspect** so that the picture matches the default 720 by 480 pixel resolution.

In the row labeled **Position** place a key frame (**by double clicking**) toward the end of the sub-timeline representing the clip's duration on the main timeline. This key frame permits the virtual camera to crop (zoom) and/or pan (move) across the image over time. Creating a zoom out pan event requires moving and zooming the first (and default) key frame at the 00:00:00;00 mark. A **zoom in requires shrinking the frame** box while a **pan requires moving the "F"** to the desired location. The computer "tweaks" the animation by moving the virtual

camera across the picture while zooming out. Playing back the main timeline reveals a smooth pan/zoom event.

5) Working with Text: Text Overlays - Credits

In a digital story, text is a crucial element that informs the audience of the purpose or topic (which can be conveyed in the title) and lets the viewer know who the key participants are in the production (on a name plate or credits section).

PLAY>> TEXT.MP4

In the digital story example a title DST Recap was selected to frame to the viewers what they are about to watch. By going to **Insert→ Text Media** you are able to pull up a window with an assortment of options for the font properties, text placement and outline/shadow properties.   The last two options are important to explore since text laid over a video needs to be emphasized without being obtrusive.

Other forms of text and media can be selected from the **Media Generators tab** along the bottom left portion of the Vegas editing environment. A **Credit Roll** is an option within the tab menu. Credits are a way to disclose to viewers details about the production. This is important for celebrating people's involvement in the production, and in practice is a great way of attributing credit to artists that have granted you permission to use their media in your digital story. Credits can also serve as instruction to the audience to visit a site, participate in an event, or motivate a community into action if that is the intent.

Plain Scrolling on Black credit rolls can be edited so that you can list important section headers (like images) in larger fonts while details about the section elements (name of picture and the artist) in smaller type. Be sure to place some space between sections.

6) Finishing Touches: Adding Music - Adjusting audio envelopes - Add Name Plate

Audio is probably the last element left to contend with, along with final editing touch ups. Now that the feel and look have been established, it is important to find music that compliments that setup and that can help drive the scenes. The music selected in this project is **ambient** in nature and semi up-tempo. More importantly it is instrumental so that it does not clash with a clip that is heavy in dialogue.

Notice the Mixer next to the preview pane on the lower right corner of the screen. During playback you will notice the mixer meter rising and falling depending on the audio level intensity across the track. As a rule of thumb, meter ratings between -6 and -12 dB are a recommended range for voice clarity and intensity. When the music track is added in to our project, notice the mixer readings go **red** during playback. This warning helps to remind the editor that the audio levels are high and need to be examined. In the sample project, the combination of music and voice in the middle of the payback causes the peaks to increase. One way to circumvent the issue is to edit the **volume envelope** of a clip.

Hitting the letter V on the keyboard brings up a volume envelope on an audio track. This light purple line through the center of the audio track represents a master audio level that allows for minute adjustments over a region. Bringing up the audio envelope in the audio track, you are able to **add nodes** by **double clicking** in the areas you need to minimize or increase the gain. In sample digital story there is a need to lower the gain as Eddie begins to speak and it needs to increase when he is done speaking. In these two locations you need to include insert two nodes in order to provide the flexibility to decrease the audio level only within a portion of the music clip. Paying back the section reveals the audio levels are within the comfortable range and that Eddie Anderson needs a name plate to identify him while he is delivering his reflection.

Publishing Your Digital Story to DVD

Rendering then watching the movie

1) Rendering the final digital story
While all of the principal editing is finished there is still a need to publish the digital story to some type of media. In its current state, the digital story is but a collection of visual and audio elements that exist only on your computer. The Vegas project itself is a database holding into place where the media gets played and other sensory properties. If the end is to create a movie file then there needs to be a tangible movie file that you can view and perhaps publish. The process begins b rendering the project to a single movie file that has only one video and audio track.

Initiate the rendering process by left clicking a far end of the project and drag the mouse over the entire project. You will see all the elements of your project being highlighted when you do this. Once the entire project is selected, go to **File➔ Render As** and select one of the default file types to render to. For the purposes of a high quality DVD render to .avi and save the project in the **VIDEO** directory of your project setup. You can select other video types such as Windows Media Video (.wmv), QuickTime (.mov) or MPEG-4 (.mp4). The majority of video upload services on the web accept those file types. Please consult the upload service to verify the file types they accept.

2) Watching the digital story

Enjoy the fruits of your labor by playing through the final rendered file. This is the time to determine if any other edits to video or sound are necessary or if misspellings took place on any of the text inserts.

3) Rendering the DVD files
The process for rendering DVD files is akin to rendering a Movie Studio project file to a single movie file. The DVD rendering process takes the layout and menu information from the DVD Architect editing program and makes a set of DVD bootable folders. These folders contain the files necessary for the DVD player to recognize the content and display the correct menu buttons and actions.

Begin by opening DVD Architect which is bundled with Sony Vegas Movie Studio+DVD. **Save** the project to your **DST_FOLDER**. Next go to **Insert➔ Media** and locate the rendered digital story within your **VIDEO** folder. Editing the layout of the text is simple and is initiated by clicking on a text box and selecting **Edit Text** from the controls in the middle of the DVD Architect window.

You can select a frame to represent the digital story on the menu on the right portion of the program window **Button Properties** and selecting the **Media**

controls. Under **Thumbnail Properties** move the **Start Time** knob to the desired image. You can test the functionality and look of the DVD by hitting the **Preview** button near the top of the program window. Edit the DVD background property by **right clicking** on the background and selecting **Set Background Media.** The **Backgrounds tab** should appear on the lower left section of the program window with an assortment of options. Preview the DVD once again then proceed to the final step.

The "Make DVD" button controls two main sets of actions: one to **Prepare** the DVD project to a set of burnable folder and the other to **Burn** those folders to a blank DVD. Selecting the former action takes you through a folder selection window where you can find the **My Documents→DST_FOLDER→DVD_DST** folder. Clicking **Finish** renders the burnable folders to the **DVD_DST** directory.

Revisiting the **Make DVD** button and selecting the **Burn** option brings up a dialogue box from which you can select the **DVD_DST** folder that holds a proper DVD project to burn. After naming the volume hit **Finish** to complete the process. Let the project burn then test the product on a home DVD player to assure successful completion.

4) Moving and consolidating content

Remember the video imported during the development of the sample digital story? By default, Vegas stores new video clips in the **My Documents** folder. Moving the files to the **VIDEO** directory assures that any backups of the **DST_FOLDER** include all media files.

PLAY>> MOVING_DV.MP4

Web Publishing
This document is meant to refresh skills acquired during the digital storytelling session. If your organization has a need to post content for web, there are a multitude of sites that tailor to hosting and streaming video content. Make sure to carefully read their license agreements as some reserve full rights to reproduce your content. This debate is on going and we will provide clarity on the issue soon.