



Vegas + DVD

Tips, Tricks, and Scripts

Learning and using Vegas 4 and DVD Architect

Introducing Excalibur

There is a new tool available that every Vegas editor should know about

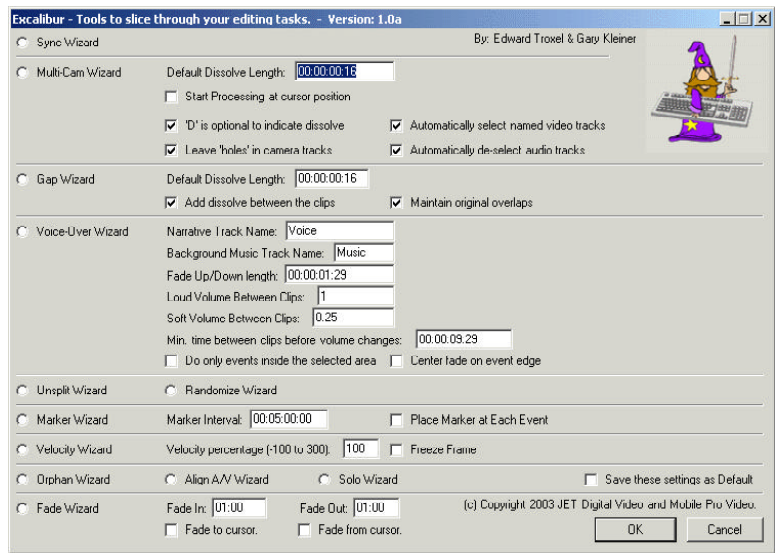
By Gary Kleiner & Edward Troxel

Created by Edward Troxel and Gary Kleiner, Excalibur includes 12 Wizards (tools) that are designed to speed you through many editing tasks, and are accessed through a pop-up interface that integrates seamlessly with Vegas.

For the event videographer, Multi-Cam Wizard alone will save many hours of editing time. You can edit an entire multi-cam shoot before making a single cut to any clip!

Tools include:

- Sync Wizard: Makes it a snap to synchronize any combination of video and audio events.
- Multi-cam Wizard: Instantly creates a finished edit with cuts and dissolves according to your instructions. Has to be seen to be believed!
- Gap Wizard: Automatically deletes spaces between timeline events with optional dissolves. Perfect for creating photo or video montages faster than you ever have before.
- Voice-Over Wizard: Takes less than a second to place volume envelopes that raises and lowers the volume of an audio track based on whenever you have placed your narration.



- Orphan Wizard: Instantly places missing audio or video events back in your timeline in sync with their video or audio “parents.”
- Fade Wizard: Places fades at event edges at your specified length, or to the current cursor position.
- Also included are Unsplit Wizard, Marker Wizard, Randomize Wizard, Velocity Wizard, Solo Wizard, and Align A/V Wizard.

To see a demonstration of this exciting new tool, go to www.VegasTrainingAndTools.com.

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Beginner's Corner - Printing To Tape (PTT)

By Edward Troxel

After you have finished editing your video project, you still face one more task. You must still get the project out of your computer and recorded onto tape. In the computer editing world, this process is known as printing to tape, or PTT. To print to tape, choose the **Print Video to DV Tape...** option on the **Tools** menu. This allows printing directly from the timeline.

Once you have selected the PTT option, several steps are required. The first step is to pick your output format. This should, hopefully, already be set appropriately to the same format as your project. If it is not, you can change the setting here. Once the correct format is chosen, click on Next.



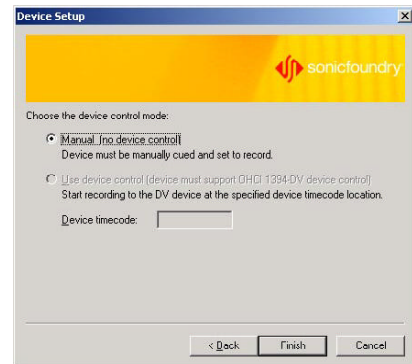
The second screen allows the option of printing color bars and tones. Many people use these bars and tones while others manually add their own bars and tones to the beginning of the timeline. Frequently, they are not needed. On this screen, pick the style of bars you want and the duration the bars should be displayed. To eliminate all bars, change the duration to zero seconds. Similarly, indicate whether the tone is to be played along with the bars.



Also on the second screen is the leader and trailer duration. This is the amount of black added to the beginning before your video starts and added to the end after your video completes. Vary these settings accord-

ing to your needs.

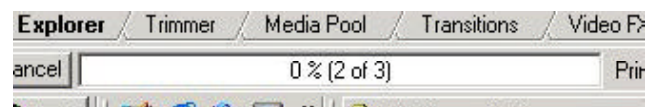
The third screen allows you to choose between manually starting the recording or letting Vegas start the recording automatically. If there is a tape in the camera/deck, a timecode will be visible in the Device Timecode box and the "Use Device Control" option will be available. Once rendering is completed, the device will automatically be started and the recording will begin.



While this is a nice option, I prefer to manually start my recordings. This allows the manual starting of other external devices such as VHS decks or devices connected to a convertor such as the Canopus ADVC-100.

Next, Vegas takes a careful look at the project to determine if any sections need rendering. It then will render all of those sections and give a status indicating how many steps are involved. The steps will be as follows - assuming a variable number of steps I will call N:

- Step 0: Check what needs Rendering
- Steps 1 thru N-3: Render video sections
- Step N-2: Generate the W64 audio file
- Step N-1: Send video to Tape
- Step N: Clean up any files

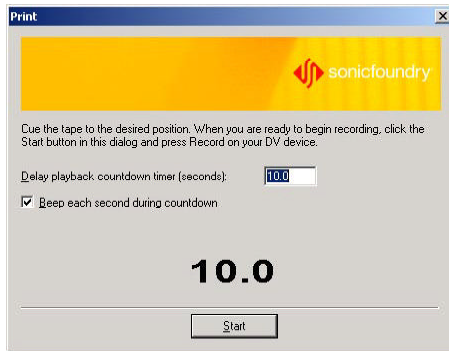


As an example, if there are 10 steps, they will be:

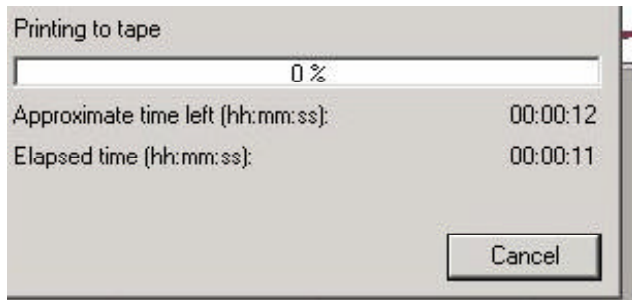
- Step 0: Check what needs rendering
- Steps 1-7: Render video sections
- Step 8: Generate the W64 audio file
- Step 9: Send video to Tape
- Step 10: Clean up an files

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If you have chosen to manually start the tape, the fourth screen will be shown after step N-2. This screen presents a countdown. Click on Start and the countdown will begin. Here you can specify the number of seconds to count and whether to include beeps. If beeps are used, the beep at the two second mark will sound different and there will be no beep at the one second mark. I press record on the two second “different” beep.



During each step, whether rendering or printing to



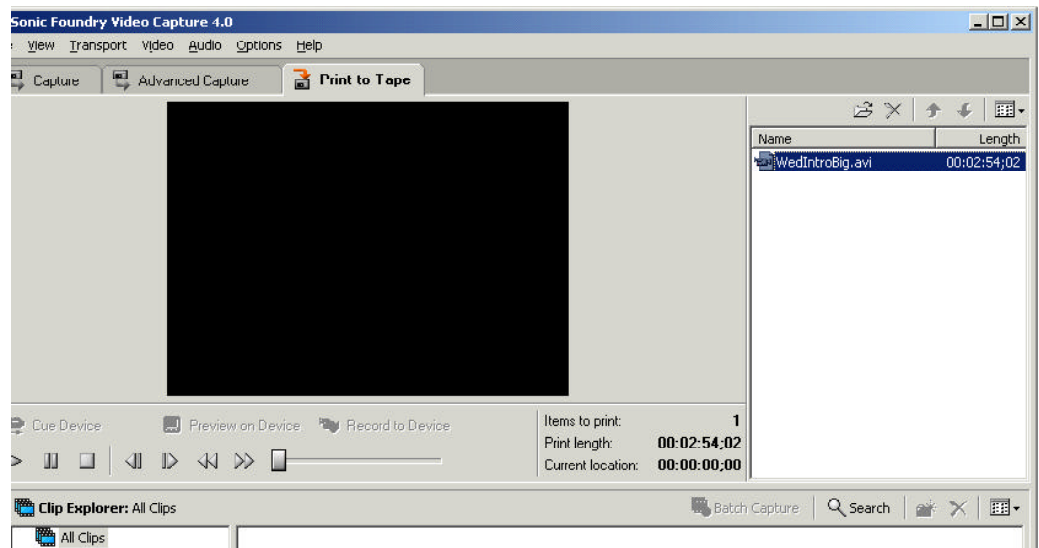
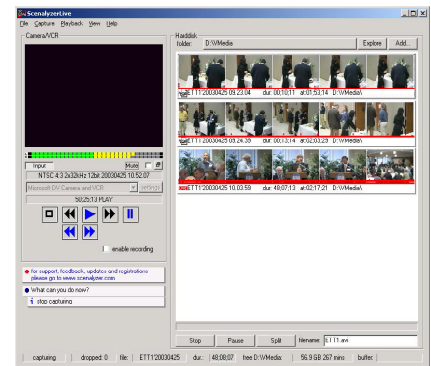
tape, a status dialog is presented. This box will indicate the amount of time that has passed and give an estimate of the time remaining. The time shown is only a rough estimate. You can use it to get an idea of when rendering will complete but it does not take into account all variables - such as the PTT step will take one hour if the video is one hour long. It simply looks at how many steps there are, how many steps are done, and

how long it has taken to do those steps.

While this is the standard method in Vegas for getting video back to tape, other methods can also be used. To use the alternative methods, the video must be rendered to a separate AVI file. Once the AVI file is generated, there are many other options available. Here are two of those options.

The Vegas capture utility has three tabs. The third tab is **Print To Tape**. Multiple AVI files can be added to the play list and they will be sent, in sequence, to the external device. The one advantage of this method is that the generation of the W64 file is not required. As a disadvantage, the file(s) must be fully rendered to an AVI first. While I have found this method a little more difficult to use, if you have problems using the normal method, this option may be worth a look.

As discussed last issue with capturing, Scenalyzer Live works for printing as well. Just point to the proper AVI files and Scenalyzer Live can send them back to your recording device. Using any of the methods, you should be able to get your video recorded back to tape.



Slideshow to Markers Script

By Alexei Boukirev

A while back, I saw a message on Usenet pointing to new tutorials for the recently released MediaStudio Pro 7.0. One of these tutorials demonstrated a technique to create a slideshow synchronized to the beat of a sound track. The beat markers had to be set manually but the rest was automated. "Hm-m-m," I thought, "can we do it in Vegas?" Scripting to the rescue - now we definitely can. Just add the markers, select the audio track and run the script.

Start with an audio track. You can listen to it and set markers at points where you later want your slideshow to advance to the next image. Then, create a bin in Media Pool and place your images/slides into that bin. The result of running the script will be a video track with events from the bin synchronized to the markers created to match the music beat.

Since there is no way to identify the currently selected bin, we'll need to find it by name. The bin name must be manually provided. Another value needed is the length of dissolve transition between slides. For scripting convenience, half of dissolve length should be entered. This is then doubled by placing half of the dissolve before the marker and half of the dissolve after

the marker. Future modifications may introduce other ways to align events.

By adding the GUI (Graphical User Interface), the bin name and overlap amount can be easily modified. To create the dialog requesting the bin name and amount of overlap (half the length of the dissolve), use the code in Figure A.

To find the specified bin in the Media Pool, use the code in Figure B. By using FindSelectedTrack to find audio track, the video track can be inserted right next to it using the code in Figure C.

Next, we walk through the markers on timeline identifying a pair far enough apart to accommodate the dissolves on both sides of event to be inserted. We also go through the images in the bin and create events and takes accordingly. Given the proper image/media and event start/end timecodes, Figure D will place the event on the timeline. The code in Figure E is used to find the next image.

As mentioned above, it is important to select pairs of markers far enough apart in order to accommodate the dissolve and leave the clip visible for a sufficient period of time. Also, it is unlikely that there are markers at the

Find Bin - Figure B.

```
// Walk the bin tree recursively until the 'name' is found.
// If several bins on different levels have the same name, first one will be
// returned.
function FindMediaBin(parent: MediaBin, name: String): MediaBin {
    // If no parent bin was provided, use the project root bin.
    if (parent == null)
        parent = Vegas.Project.MediaPool.RootMediaBin;
    var binEnum = new Enumerator(parent);
    while (!binEnum.atEnd()) {
        var bin = binEnum.item();
        if (bin instanceof MediaBin) {
            if (String.Compare(bin.Name, name) == 0)
                return bin;
            // Recurse here.
            bin = FindMediaBin(bin, name);
            if (bin != null)
                return bin;
        }
        binEnum.moveNext();
    }
    return null;
}
```

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Create Dialog - Figure A.

```
// Form subclass that is the dialog box for this script
class SlideshowDialog extends Form {
    var binNameBox;
    var overlapBox;

    function SlideshowDialog(binName, overlap) {
        this.Text = "Create Slideshow";
        this.FormBorderStyle = System.Windows.Forms.FormBorderStyle.FixedDialog;
        this.MaximizeBox = false;
        this.StartPosition = FormStartPosition.CenterScreen;
        this.Width = 300;

        var buttonWidth = 80;
        binNameBox = addTextControl("Bin Name", 6, 200, 10, binName);
        overlapBox = addTextControl("Overlap Time", 10, 140, binNameBox.Bottom + 16, overlap.ToString());

        var buttonTop = overlapBox.Bottom + 16;

        var okButton = new Button();
        okButton.Text = "OK";
        okButton.Left = this.Width - (2*(buttonWidth+10));
        okButton.Top = buttonTop;
        okButton.Width = buttonWidth;
        okButton.Height = okButton.Font.Height + 12;
        okButton.DialogResult = System.Windows.Forms.DialogResult.OK;
        AcceptButton = okButton;
        Controls.Add(okButton);

        var cancelButton = new Button();
        cancelButton.Text = "Cancel";
        cancelButton.Left = this.Width - (1*(buttonWidth+10));
        cancelButton.Top = buttonTop;
        cancelButton.Height = cancelButton.Font.Height + 12;
        cancelButton.DialogResult = System.Windows.Forms.DialogResult.Cancel;
        CancelButton = cancelButton;
        Controls.Add(cancelButton);

        var titleHeight = this.Height - this.ClientSize.Height;
        this.Height = titleHeight + okButton.Bottom + 8;
    }

    function addTextControl(labelName, left, width, top, defaultValue) {
        var label = new Label();
        label.AutoSize = true;
        label.Text = labelName + ":";
        label.Left = left;
        label.Top = top + 4;
        Controls.Add(label);

        var textbox = new TextBox();
        textbox.Multiline = false;
        textbox.Left = label.Right;
        textbox.Top = top;
        textbox.Width = width - (label.Width);
        textbox.Text = defaultValue;
        Controls.Add(textbox);
        return textbox;
    }
}
```

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Insert Video Track next to Selected Audio Track - Figure C.

```
var audioTrack = FindSelectedTrack();
// Hardcoded name of the new track.
var videoTrack = new VideoTrack(audioTrack.DisplayIndex, "Slideshow");
Vegas.Project.Tracks.Add(videoTrack);
```

Place Image on Timeline - Figure D.

```
// Retrieve the next available image and create event on timeline.
function PlaceImageOnTimeline(images: Enumerator, from: Timecode, to: Timecode): void {
    // Advance to next image.
    var imgStream: MediaStream = FindNextImage(images);
    if (imgStream == null)
        return;
    // Add handles for dissolve. Transition is centered on marker.
    // Keep timecodes within the range of audio track.
    from -= overlap;
    if (from < zeroMark) from = zeroMark;
    to += overlap;
    if (to > Vegas.Project.Length) to = Vegas.Project.Length;
    // Create the new video event and add it to the track.
    var evnt = new VideoEvent(from, to - from);
    videoTrack.Events.Add(evnt);
    // Create a new take using the video stream.
    var takeName = null;
    evnt.Takes.Add(new Take(imgStream, true, takeName));
}
```

Find Next Image - Figure E.

```
// Get next available media as video stream. There is no check if this is
// slide/image. Any media containing video is acceptable.
function FindNextImage(mediaEnum: Enumerator): MediaStream {
    while (!mediaEnum.atEnd()) {
        var img = mediaEnum.item();
        mediaEnum.moveNext();
        if ((img instanceof Media) && Media(img).HasVideo()) {
            return img.Streams.GetItemByMediaType(MediaType.Video, 0);
        }
    }
    return null;
}
```

very beginning or very end of project. This should also be accounted for in the script.

By combining all of these elements, we get to the final script. The final complete script has been updated multiple times since the article was written. The full script can be downloaded from the Sundance site at:

http://www.sundancemediagroup.com/help/kb/kb_download.asp?id=148

Feel free to use the ideas from this script, modify it to your heart's content, ask for enhancements, and suggest improvements.

The author, Alexei Boukirev, can be reached by sending an e-mail to: aboukirev@ameritech.net

Contact Information

Send your tips, tricks, article ideas, script ideas, questions, articles, or registration requests to:

vegastips@jetdv.com

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Thank you,
Edward Troxel