Vegas + DVD
Tips, Tricks, and Scripts

Learning and using Vegas 4 and DVD Architect

Vegas 4 Editing Workshop Book by Douglas Spotted Eagle

Reviewed by Edward Troxel

The release of Vegas 4 Editing Workshop has been anxiously awaited by Vegas users for several months. With all of the excitement surrounding this release, one has to wonder if it can live up all of the various expectations. It appears that answer is yes.

The included manual for Vegas does a good job of discussing individual features of Vegas. Unfortunately it has a couple of disadvantages: 1) It is in PDF format which must be printed and bound manually and 2) It doesn't really discuss how various pieces can be used together to create something totally different and unique. Vegas 4 Editing Workshop is a supplement to the manual and provides hands-on tutorials showing how the various tools enhance your video.

The book begins in an unexpected manner as instructions on Vegas start in chapter three. However, the first two chapters are very important. Chapter one provides tweaks that can be applied to your computer system to optimize your editing environment. The vast majority of problems with Vegas can be attributed to hardware, system setup, and system drivers. Douglas Spotted Eagle explains the most common pitfalls and their remedies.

Chapter two, while still not talking about Vegas, is equally important. Douglas explains the DV format used by today's digital cameras and many of the associated terms.

The remaining chapters explain various aspects of Vegas beginning with the installation and user preferences. Each section of the Vegas screen is also described. The general process of working with video is capturing, editing, and outputting to an appropriate format. Each step of this process is explained in full detail.

Since editing is the most complex step of the process, it also receives the most attention in this book. Major topics such as compositing and color correction warrant complete chapters. The largest chapter in the book deals with an often-overlooked item: Audio! Several third party add-ons and scripts are also mentioned in this book.

Also included is a CD containing same projects and media. These projects are referenced throughout the book and aid the hands-on instruction. The CD also contains some free plug-ins, plug-in demonstrations, scripts, and informational documents.

Douglas Spotted Eagle is well known and respected in the Vegas community. His knowledge and insights to the program are aptly demonstrated throughout this book. If you are looking for a book to learn about editing in Vegas, Vegas 4 Editing Workshop will make a good addition to your library.
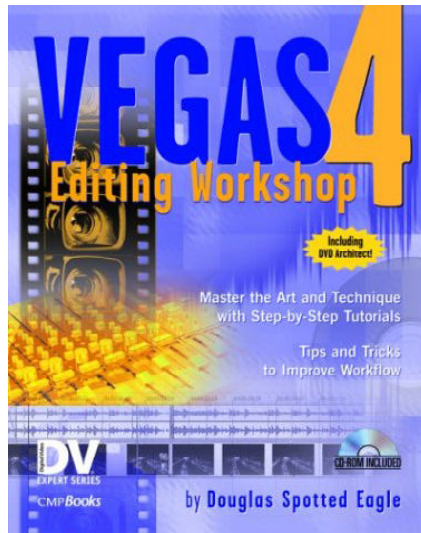
IN THIS ISSUE

Beginner's Corner - Scope of Effects

By Edward Troxel

Effects can be applied in a variety of places within Vegas. Because of this, it is important to choose the location based on how much the effect is needed. Let's look at the various possible places effects may be applied to determine how broad the effect will be.

The first place that effects may be applied is to the events (clips) on the timeline (see "A"). When applied to an event, only that one particular event will be affected. If multiple events require the same effect, the effect will need to be added to those events as well. In my normal use, this is the most common place for adding video effects.

If you have a lot of events that require the same effect, you may wish to place them all on the same track and apply the effect to the entire track (see "B"). When placed on the track header, the effect will be applied to all events on the entire track. In my normal use, this is the most common place for adding audio effects.

A third location for adding effects is on the preview screen which applies the effect to the entire project (see "C"). For example, if the project is to be aired, it may be necessary to apply the Broadcast Colors filter to make sure all colors remain within the allowed range. This could best be used at the project level so the final output will contain legal colors. One big drawback to applying effects at the project level is that it will require **every** frame to be rendered.

A fourth location where effects may be added is in the Media Pool (see "D"). When an effect is added to a clip in the Media Pool, it will be applied to the clip no matter where on the timeline it is placed. So if you had a multi-camera shoot and one camera was not properly white-balanced, it may be possible to add the color correction directly to the clip instead of individual events.

Another location to apply effects is directly to busses. When applied here, all tracks going to that particular bus will receive that effect.

It is important to determine how many clips need to be affected and apply effects at the proper location. By allowing the variety of locations, the flexibility of Vegas is demonstrated.
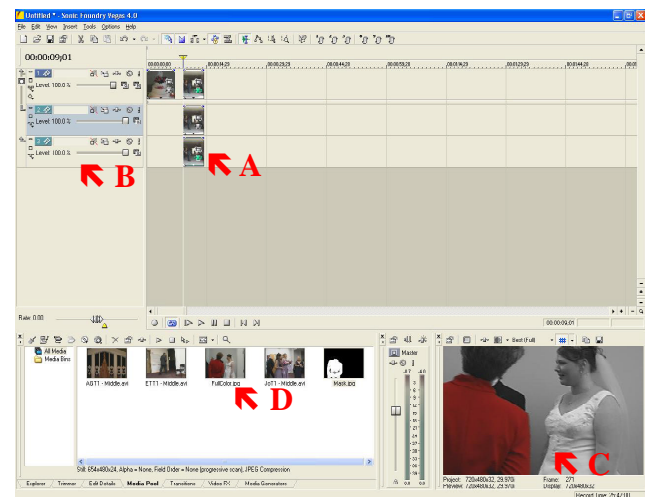
Contact Information

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

vegastips@jetdv.com

To register on the web to receive this newsletter, browse to:

www.jetdv.com/tts

Thank you,
Edward Troxel

Request

There have been many good discussions lately on the various forums covering topics such as the Media Pool, Trimmer, Busses, Boris Red, and other interesting items. I would gladly publish an article written on any of these or other topics. If anyone is interested in writing such an article, just send a note to **editdv@jetdv.com**.

I will continue to write articles but would appreciate any help. Your help will allow the newsletter to continue being released in a timely manner.

Blurring Faces a la "Cops"

By Edward Troxel

During the editing process, there may be times when some section of the video needs to be blurred. There could be multiple reasons for this including obscuring someone's face or other body parts or hiding a license plate or written name. Fortunately, this effect is easy to achieve in Vegas using a variety of different methods. In this article, I will explain one of those methods.

Start by placing the same video on two separate tracks and make sure they are properly aligned. On the

lower track, apply the desired effect to obscure the video. Two popular options would be Gaussian Blur and Pixelate. However, any effect that will properly hide
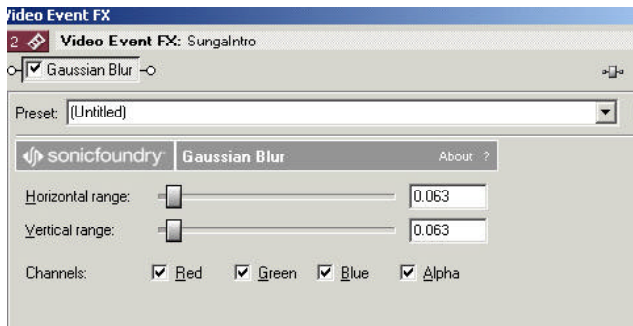

the area is usable. By soloing the second track, you can see the effect in the preview window. Change the settings as needed to get the desired effect.

Now it is time to make the necessary areas of the video on track two to show through the video on track one. To do this, the Cookie Cutter effect will be applied to track one.

The Cookie Cutter works as it name implies: It cuts out a section of the video. The only determining factor is whether you wish it to cut out the section specified or cut out everything *except* the section specified. For this

case, we want it to cut out the section specified.

Next you will need to resize the affected area and add feathering if desired. For this purpose, I would leave the Border, Repeat X, and Repeat Y values at their
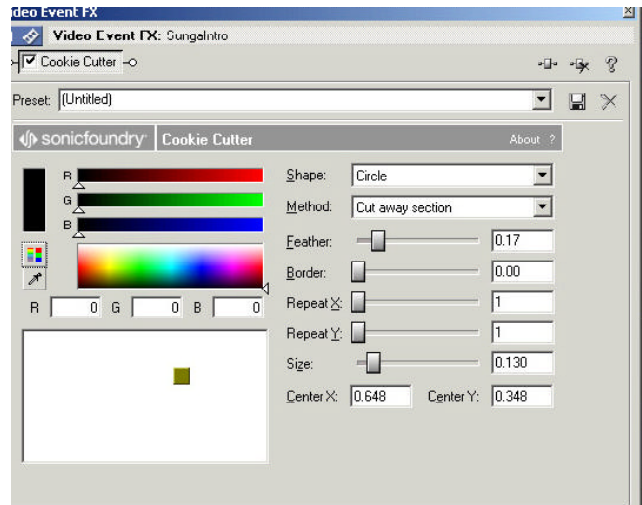
defaults. Now adjust the position of the Cookie Cutter by dragging the square around the white "window" so that it covers the area you wish to obscure. As shown in this example, the bride's face has been blurred while the rest of the picture remains clear.

As you have seen, this process is fairly simple. Unfortunately, people move. Because if this, you may have the correct position for the blur on this particular frame but one second later the blur may be no where near the person. To solve this problem, you must add a series of keyframes repositioning, and possibly resizing, the blurred area over time.

If you turn on Sync Cursor, the timeline cursor and
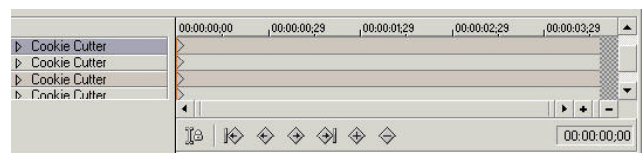
the keyframe cursor will match. Just move a few frames down the timeline and adjust the blurred area. This will automatically create a new keyframe at that point in time. Repeat this process until it is no longer necessary to hide this area.

In the previous picture you will notice that there are several people and only one of those people have been blurred. I may be necessary to hide the identity of all of

the people instead of just one person. If multiple people need to be hidden, just add more instances of the Cookie Cutter effect and repeat the adjustment process for each one. Remember they will all need to be keyframed over

time in order to keep all of the faces blurred.

In short, to blur or hide any element of the video, add the video to the timeline on two tracks, add the proper blurring to the second track, and use the cookie cutter on the top track to indicate where the lower track should show. Next, add keyframes to make each area continue hiding the area you wished to obscure. Finally, repeat the process for any other areas.

Obfuscating and Encoding Scripts

By Edward Troxel   www.stunnix.com/prod/jo/

Many people have asked about a demo version of Tsunami or Excalibur. Because these programs are script-based, this has not been possible. Even if additional code was added, it could be easily bypassed since the script is simply an easily edited text file.

Stunnix JS-Obfus is the unique solution for this problem for code written in JavaScript programming language - it's both the obfuscator and encoder for JavaScript source code that has advanced support for

adding extremely difficult to remove automatic checks of licensing conditions. It converts the JavaScript source files (with .js extension) into highly mangled and obfuscated form, making it extremely difficult to study, analyze, reuse and re-work for competitors or customers, while fully retaining functionality of the original source code.

To illustrate how the program works, let's look at the Reset Pan/Crop script from issue #10. This script, shown to the left, simply removes all Pan/Crop keyframes from selected events thereby resetting any Pan/Crop changes. JS-Obfus has two methods of operation: Obfuscating and Encoding. After obfuscating the Pan/Crop script, it will look similar to the script on the top of page 6. Encoding the script will produce results similar to the listing at the bottom of page 6. These scripts may be downloaded to verify they do, indeed, still run inside Vegas.

For over a month I have communicated with Stunnix as they worked to make their product compatible with Vegas. While there are still a few restrictions, scripts can be written so they may be obfuscated (the **safest** method), totally encoded (the **least safe** method, or a combination of both - some sections obfuscated while other sections are obfuscated and encoded (requires **careful** preparation.) I can now say that programs encoded with JS-Obfus will run in the Vegas environment. They have worked hard to bypass the limitations of the .NET implementation of JavaScript. I commend Stunnix for the support they have given me since I first contacted them. I could not have asked for better support than I have received.

Original Remove Pan/Crop Script

Download: www.jetdv.com/scripts/ResetPanCrop.js.txt

```
/**
 * ResetPanCrop will remove all Pan/Crop
 * keyframes effectively resetting the
 * Pan/Crop settings
 *
 * Written By: Edward Troxel
 * www.jetdv.com/tts
 * Modified: 08-07-2003
 * Copyright 2003 - JET Digital Video
 **/
import System;
import System.IO;
import System.Windows.Forms;
import SonicFoundry.Vegas;

try {
   var trackEnum = new Enumerator(Vegas.Project.Tracks);
   while (!trackEnum.atEnd()) {
      var track : Track = Track(trackEnum.item());
      //Find the first selected event on this track
      var eventEnum = new Enumerator(track.Events);
      while (!eventEnum.atEnd()) {
         var evnt : TrackEvent = TrackEvent(eventEnum.item());
        if (evnt.Selected) {
           var videoEvent = VideoEvent(eventEnum.item());
           var keyframes = videoEvent.VideoMotion.Keyframes;
          var cKeyframes = keyframes.Count;
         var jj;
         for (jj = cKeyframes - 1; jj >= 0 ; jj-- ) {
             keyframes.Remove(keyframes[jj]);
         }
           var AddKey = new VideoMotionKeyframe(new Timecode(0));
          keyframes.Add(AddKey);
       }
         eventEnum.moveNext();
    }
      trackEnum.moveNext();
   }
  Vegas.UpdateUI();
} catch (e) {
     MessageBox.Show(e);
}
```

Reset Pan/Crop Script - Obfuscated

Download: www.jetdv.com/scripts/ResetPCobfus.js.txt

```
 import System; import System.Collections; import System.Text; import System.IO;
import System.Drawing; import System.Windows.Forms; import SonicFoundry.Vegas;

 var z5ed86e8805="\x30\x2e\x30\x31";
try{
var trackEnum=new Enumerator(Vegas.Project.Tracks);
while(!trackEnum.atEnd()){
var z987df67440:Track=Track(trackEnum.item());
var eventEnum=new Enumerator(z987df67440.Events);
while(!eventEnum.atEnd()){
var z2407af2aab:TrackEvent=TrackEvent(eventEnum.item());
if(z2407af2aab.Selected){
var z24afad2617=VideoEvent(eventEnum.item());
var z048524aaaf=z24afad2617.VideoMotion.Keyframes;
var z5da8d4f192=z048524aaaf.Count;
var zd9adea955e;
for(zd9adea955e=z5da8d4f192-(0x3a4+5284-0x1847);zd9adea955e>=(0x50b+8563-
0x267e);zd9adea955e--){
z048524aaaf.Remove(z048524aaaf[zd9adea955e]);
}
var z3aebb9bae8=new VideoMotionKeyframe(new Timecode((0x13f5+920-0x178d)));
z048524aaaf.Add(z3aebb9bae8);
}
eventEnum.moveNext();
}
trackEnum.moveNext();
}
Vegas.UpdateUI();
}catch(z7d5f35af95){
MessageBox.Show(z7d5f35af95);
}
```

Reset Pan/Crop Script - Obfuscated and Encoded

Download: www.jetdv.com/scripts/ResetPCencoded.js.txt

 import System; import System.Collections; import System.Text; import System.IO; import System.Drawing; import System.Windows.Forms; import
SonicFoundry.Vegas;var xRDikh = unescape('%7bvar xzgzxl %3d unescape%28%27Lt%257bvar xlAqby %253d
[obfuscated encoded data]
xagYSR %25253d __zb8%252528xagYSR%252529%253b eval%252528xagYSR%252c%252527unsafe%252527%252529%253b xagYSR %253d
%252527%252527%25253b %25257dU%25257bvar xagYSR %25253d
[obfuscated encoded data]
%253d
xlAqby %253d eval%2528xlAqby%252c%2527unsafe%2527%2529%253b%253b %257d%253b%27%29%3bxzgzxl %3d
[obfuscated encoded data]
xzgzxl %3d eval%28xzgzxl%2c%27unsafe%27%29%3b%3b %7d%3b');{var z82="\x5c";function __z9b(z07){while(z82.length<(0x5b0+4306-
0x15ba)){z82+=z82+z82+z82+z82+z82;}var z84=',z5d=(0x613+5902-0x1d21);while((0x6ae+4399-0x17dc)){var zff=z07.indexOf("\x5e",z5d);if(zff==-
(0x2203+1166-0x2690))return z84+z07.substr(z5d);else{z84+=z07.substr(z5d,zff-z5d);var zd1=(0x1e93+1313-0x23b2);var z21=z07.charAt(zff+(0x907+1781-
0xffb));while((0x1451+3608-0x2268)){var zab=z07.charAt(zff+zd1++);if(!(zab>="\x30"&&zab<="\x39"))break;else z21+=zab;}z21=parseInt(z21);z5d=zff+zd1-
(0x194+2657-0xbf4);do{var z14=z21>z82.length?z82.length:z21;z21-=z14;z84+=z82.substr((0x27b+7467-0x1fa6),z14);}while(z21>z82.length);}}return
z84;}};function __zb8(z94){var z8d=[],zc9=[];var zd2=[];var z3f="\x61\x7a\x41\x5a\x30\x39";{var z9e=(0xd+263-0x114);for(var zd1=(0xcc7+5582-
0x2295);zd1<z3f.length;zd1+=(0x12bb+4530-0x246b)){var zca=z3f.charCodeAt(zd1),z56=z3f.charCodeAt(zd1+(0x7ae+3578-
0x15a7));for(;zca<=z56;++zca){var z14=(z9e++%(0x3c5+7196-0x1fd1));z8d[zca]=z14*(0x204f+1178-0x24d9);zc9[zca]=z14;}}for(var z2d=(0x872+273-
0x983);z2d<(0x1a85+2777-0x245e);++z2d)zd2[z2d]=String.fromCharCode(z2d);}var z84=';for(var zd1=(0x6eb+4793-
0x19a4);zd1<z94.length;zd1+=(0x111f+5358-0x260b)){z84+=zd2[z8d[z94.charCodeAt(zd1)]+zc9[z94.charCodeAt(zd1+(0x271+7213-0x1e9d))]];}return
z84;};xRDikh = __z9b(xRDikh);eval(xRDikh,'unsafe');