

TNews - More than Stitching



More and more, communicating our vision requires knowing tools beyond the camera. I honestly don't know if this is good or bad, especially for those just coming to photography. Expertise, talent and passion behind the camera cannot be made up for with amazing computer skills. Yet, when expertise at both is combined, watch out, the result is phenomenal! There are simply some subjects, no matter what we know or what we own, that the camera simply can't capture it all with one click. An example is capturing all the breath of the world in one frame that we're so fortunate to explore. That's why I've turned to capturing this magnificent world by using a technique I call Ultra Wide Panos.

In BTJ vol9-3, I laid out how to create a single completed photo that matches our binocular vision by capturing 6 precise images with a 28mmPC lens. Basically when finished, we have a photo with 200x94 degree coverage. Wow! Here's a brief recap of the shooting process. We take six separate images using a PC lens, nodal plate and tripod. Knowing the nodal point, we bring those 6 images into the digital darkroom where we stitch them together, creating one final image. (Refer to BTJ vol9-3 for the thorough behind the camera recipe.) We've kind of left you hanging for a few months (as some of you have reminded me) by not bringing you the digital darkroom recipe for finishing your ultra wide pano (UWP). Actually, the stitching part is real simple. It's the finishing of the story telling that takes a minute or two. Well, here it is.

Getting Started

Once the images are captured and uploaded, the first thing I do is organize the images. Each pano consists of six images. I normally shoot two sets of images for each pano, one complete set and then repeat the process to capture a second set. So the first thing I do is organize the images, which makes my life real easy later on.

Bringing up the thumbnails in DigitalPro, I give a unique name to each set of six images. For example, the file name of the UWP I'm going to walk you through right now is Muir Woods #2-a 0001 - 0006. The next set of images for the same UWP scene would be numbered Muir Woods #2-b 0001 - 0006. I name the images during the process of filing the images in the correct folder. In my Locations hard drive where I file all my "scenic" images, I have a folder called Panoramas with a subfolder 2x3 Compile. This is the folder where I'll file all the individual images that when stitched together will make a final, single image. (The final pano is filed in a different subfolder under panos 2x3 Panos.)

It is essential that these images be organized right from the start. You want to make sure images from one UWP set are kept together. If you do like I do and take at least 2 sets of each pano, you want to keep them separate so any mistake in one set is kept in that set (which is why I take at least 2 sets). You also need to keep them organized because it makes it a whole lot easier when you go into



what great photography." The presenter said, "Thanks and yeah, it was great photography." I then said with a slight smile on my face, "thanks." We stood there for a moment with the presenter looking at me who finally said, "Those are your photos, aren't they?" My smile grew when I acknowledged them. He instantly apologized for using them and said he would stop. I said that his presentation and message were great and the only thing I wanted to change was to replace the not-so-hot copy shots with duplicate slides. I didn't want him to stop. He said thanks and to thank me further, he wanted me to come down and photograph the El Segundo blue the next season. It was an offer I never thought I would take up because, "I didn't do creepy crawlies or slimy things."

Months went by and then we got a phone call from the biologist. He wanted to make good on his promise and get me down to photograph the butterfly. We set a date and in a few weeks I was driving the couple of hours down to the site. I drove onto the site, shook hands with the biologist who said let's hop into my car and take a drive. I was slightly confused because I was at the site but went along with it anyways. We hadn't gone more than a few feet when the biologist turned to me and asked, "Have you ever heard of the Palos Verde blue?" I said, "Yeah, it went extinct about a decade ago." He then said, "That's true, and I rediscovered it yesterday and we're driving there right now to photograph it."

That was the longest ten minute drive in my life! There I was, the "I don't do creepy crawlies or slimy things" guy, heading off to photograph an "extinct" butterfly. Holy %^*@(At the time, I had an F5, 60micro and one flash and I had done NO testing or prep because I was the "I don't do creepy crawlies or slimy things" guy. What a fool!

Well, during that ten minute drive, I was given a complete briefing on what to look for, host plant, flight pattern and similar butterflies, a complete biological rundown. There could be as many as ten individuals. Ten, that's all, ten! We got to the location and walked up to the hillside where the butterfly was found the day before. I was shown the host plant and then left on my own as the biologist went looking for more individuals in the next canyon.

Chasing a butterfly the size of your thumbnail around the hillside sounded totally impractical besides the possible damage I could do to the habitat. So I planted at one plant and waited. A total of 3 males came by me during the two hours I was there. Two landed on the plant but for only a heartbeat. I only had a roll of exposed film when the second male showed up. It landed on a blossom right beneath me. I bent over and fired off five frames before it took to the air again. Those five frames where shot at 8fps, so you can figure out how little time I had with this guy. By the end of my two hour

stay, I only had a couple of rolls of images. I wasn't too happy. What an opportunity that I had let slip through my fingers because I wasn't prepared.

I rushed back home, dropped the film off at the lab and waited until it was out. A couple of hours later I was at my light table, looking at my results. Miserable at best, how disappointing. I'd just about gone through the three rolls when I came up to the series of five shots at the end. Great composition, subject size and position, but the first two frames were out of focus. I got to the third frame, it was sharper but not tack sharp. I got to the 4th frame, razor sharp. Yippee! The 5th frame, out of focus. I luckily, and I don't fool myself that it was sheer luck, had one perfect image of this golden opportunity.

A couple of days later, I was on my way down to photograph the Palos Verde blue again. This time, I was going down completely prepared after going through all the testing I outlined above. I reached the site to find it crawling with reporters. There were TV crews from all the stations, including CNN. I happened to have five 5x7 prints with me of the one great frame I had taken a few days previously to give to the biologist. I parked, got out and found the biologist and asked what was happening. He told me we, as in him and me, were holding a press conference. Oh my God! Well, those five lonely 5x7 prints were passed around and filmed by all since the crews weren't allowed out on the hillside to film. And within a month, that one image had been published 110 times worldwide. (We placed the image in the public domain through the USFWS and we accepted no pay for the use of the image.)

Life is a funny thing at times. Wildlife photography brings rewards that there's no way we can predict. If you start photographing butterflies, endangered butterflies, will the same thing happen to you? Who in the heck knows in all honesty. You probably heard about the Ivory-billed Woodpecker being rediscovered recently but probably not the Mt Diablo buckwheat. It's a small plant thought to have disappeared four decades ago. Butterflies are a unique member of our wild heritage and because some species are so common, they are taken for granted. It's good to see a resurgence in popularity in photographing them. These incredibly delicate, graceful and colorful creatures bring such enjoyment. They are a challenge, they are rewarding and they need you to spread their beauty to others. With the growing awareness of global warming (whatever the cause) is the awareness that butterflies will be one of the first to disappear in a big way. I hope you will take this special field of wildlife photography to heart and give it your talent and passion. These miniature flying jewels are hanging on by a wing and a prayer.

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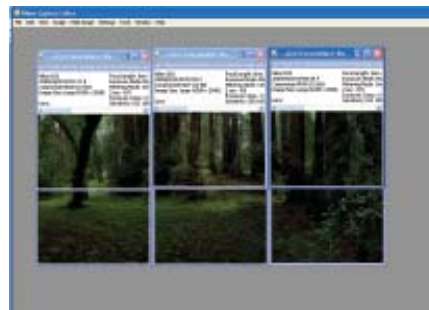
Nikon Capture to process the Raw files. You can easily batch process if you know the exact file names. Also, a year or two later when you want to go back and work on that pano you shot but never had time to finish, unless you take amazing notes and know where to file them and then find them, without organization, the task will be no fun. So once the images are numbered and filed, it's time to start assembling.

First Step in Assembly

This might seem really obvious, but I feel I need to mention it. The first step in assembly is having power, computer power! While an UWP taken with the D2H was only 123MB when first assembled in Photoshop (PS), an UWP from the D2X is 928MB when first assembled in Photoshop! That's one big ass file folks, one that many don't realize chokes a system, making it perform really slow. I don't mean to scare you off from this process, because it's a lot of fun. I just want you to understand that if your computer isn't one lean, mean computing machine, you will see things come to a halt! I saw this when using my notebook with D2X panos and not until I had to "upgrade" my notebook was I able to work my panos again in the field.

You can process your Raw files (if that's how you captured your UWP) many ways these days, I still prefer the results from Nikon Capture (NC). Because I'm a creature of habit, I still do this the same way I did my first UWP. I open the six files and process them one at a time in NC. Doing it this way, we can preview the finished UWP with the six images and do a pre-stitch check. We can be sure we're opening and processing the right six files.

By holding down the Ctrl button, select one of the six files from your folder to be opened and used in completing your UWP. Depending on your computer,



SC1

this is accomplished in a heartbeat or the next day. If it is the next day, you should modify this workflow to fit your machine.

Next, make the preview windows for each image smaller (Ctrl -) than it originally opened so you can move the image windows around and do a cursory line up of the six images. **SC1** At this point, you want to really look at the images. Any real problems with your shooting, such as not using a level platform, bad nodal point, or any other problem will become very apparent. This includes an exposure or color problem. Not until you've done a lot of UWPs will you find that at least one of the six images is "off" in exposure or color from the other five. Here in NC is the place to make the first corrections in matching up color and exposure among the six images. This particular UWP was taken in the rain, so the exposure I see on my monitor (calibrated monitor) works for what I want to do with the final UWP in the digital darkroom. Knowing what I want to do, I am going to set the Sharpening (Advanced RAW > Sharpening) to Medium High and in the same dialog box, set Saturation to Enhanced.

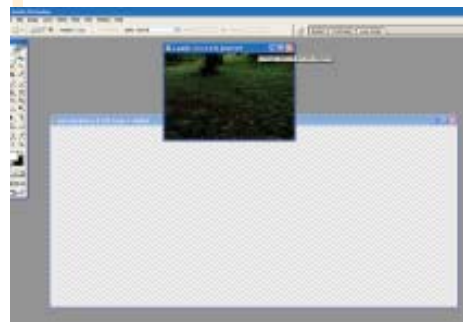
Is it imperative that you use the same settings on all the Raw files when you process them for the UWP? It is for all except the one that might be off in exposure or color. That one image might have custom settings that would be the exception. Otherwise, you want to make sure that you set Sharpening and any other setting in Advance the same for each file.

That's all the processing I'm going to do (refer to Photo Bis for more workflow info) so at this point I do a Save As. Here's a suggestion that might help you in the beginning. Rename the images based on their location in the UWP. For example, the image that is going to be the top left image in the UWP, name it TL. Middle Bottom would be MB, and so on. This just makes it a little easier to organize the pieces when you bring them into Photoshop. This can help if you have a slower computer. Saved as 16bit, Tiffs, the images are ready to be assembled in Photoshop. **Now the fun begins!**

The Photoshop lesson that follows works in Photoshop CS or CS2 but not PS7, personally I'm running CS2. Type Ctrl (Cmd) N, which opens a new document. First, just for ease of saving later, I type in the file name, in this case Muir Woods #2. Next, create a canvas larger than what you're going to need for the final UWP. I typically create a canvas that's 45" x 20", giving me a couple of inches on both sides after bringing in the six images. Be sure to set the bit depth to 16 to match the TIFFs you're going to be bringing into the new canvas. With those dimensions, Photoshop says that the file size is 463MB before bringing any images into the new canvas. Click OK.

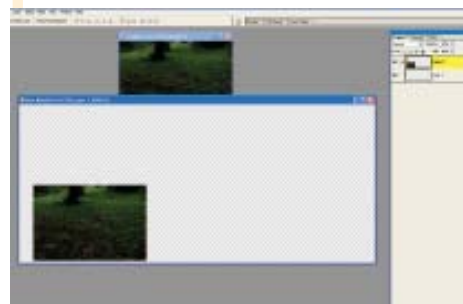


Now depending on your computer, you can bring in one image at a time or open all six images and drag them in one at a time. This is where naming the files



SC2

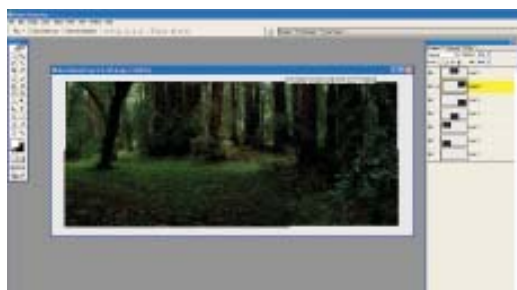
MT or RT comes in handy, so you can open just one file at a time and know quickly where to place it. Depending on your Preferences in PS, you might need to reduce the size of the document so it fits in between the Tools and Layer palettes. With this, you're ready to bring in your first image. Open the first image you want to place into the UWP and resize (Ctrl -) its window so it looks "small" enough SC2 to fit right into the UWP. Tab the V key, which activates the Move Tool, click on the image and drag it into the UWP to its approximately correct location. When you "unclick" the image, it will appear in the large canvas you created and PS automatically makes it a new layer. SC3 Once you're finished dragging an image into the new canvas, you can close the



SC3

individual image since it's now a part of the UWP canvas. This is just too easy and too way cool!

You're now going to do the same thing again, five more times. Before you do, you might just want to save your UWP canvas, depending on your system. Personally, I save this file as a PSD and it's a file I will never delete. Keep in mind that this file will keep getting bigger and bigger. It started at 463MB and with the addition of just the first image, the size is already 570MB! Saving, saving and saving can save you time later on just in case your system becomes taxed by the file size. When you're all done moving the six images into the canvas, your UWP should look something like this. SC4 Notice how PS has

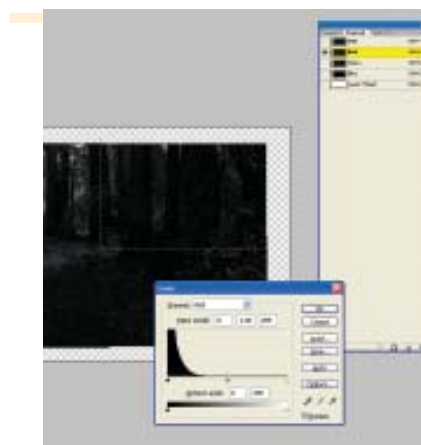


SC4

seven layers, the original canvas and six others, one for each image. The file size is now 929MB! At this point, you want to look over your "rough" draft for any obvious problems. For example, if one of the six images looks like the color or contrast is off, it could be that you simply didn't use the same settings in NC when processing the Raw file. It's a whole lot easier at this point to go back and reprocess that one image to see if that's where the mistake lies than trying to fix it later (and give you better quality as well). It's not critical or even important at this point for the six images to be even close to lined up with each other. We take care of that in the next step. All you've created up to this point is a rough draft of your final UWP. With that all accomplished, I personally close the file, close PS and reboot. This just clears out the ram and makes the machine a little happier for the next step. (Programs don't always clean out their bites of ram like they are supposed to when you close the program.)

What if the color doesn't match?

Now that you have all six images aligned with each other, you might see small differences in color (when working with a calibrated monitor). There will be times when the color between the individual



images no matter what you did in NC won't match up. Not to worry, we can easily deal with that. There are actually a number of techniques/tools you can use such as Color Match. What I prefer using is a technique I learned from Russell Brown, what he refers to as the Teton Technique. It involves using Channels and Levels.

We start by selecting the layer that is out of sync and whose color we need to match with the rest of the image. We do not want to affect a change on the entire image but rather the one layer, the one photo that is not color matched to the rest of the five images. So the first thing is to select that one layer. Select the layer, the image that needs to be modified by simply clicking on the layer so it is highlighted. Next, right click on that layer, which brings up a menu. Click on Select Layer Transparency, when done correctly marching ants appear around the image. If the marching ants bother you, click Ctrl (Cmd) H, which will hide the marching ants but the layer will still be selected.

In the Layers Palette, click on the Channel tab to open the Channel palette. Channels is the whole secret to making this all work, it's simply ingenious! Once the Channel palette is open, you see four channels, RGB, Red, Green and Blue. Let's start with the Red channel.

We select the Red channel by simply clicking on the channel. When done correctly, the eye icon appears only at the left of the selected channel. When you clicked on the Red channel, the image turns to a grayscale image. That's exactly what we want. We now want to match the gray tones of the selected layer to the rest of the image. We do this by using Levels. All we're going to do is match the grays of

the two images. You can either go to Image > Adjustments > Levels or simply Ctrl (Cmd) L, which brings up the Levels dialog. We're going to click on the mid point (gray) and slide it right or left until the grays of the two images match. This might seem backwards, matching up gray tones to match up color, but just watch the magic. Once you've got the two images matched up, head to the Green channel and repeat the process. Using Levels again, match the gray tones of the two grayscale images. Once accomplished, finish the process by doing the same thing with the Blue channel. Once the Blue channel is matched, I personally go back and check the three channels to make sure they are all still matched up. Once checked, click on the RGB and look at your image.

When it's done right, the color of the mismatched image now matches its neighboring images. What about a worst case scenario where none of the six images match each other? That could happen but not to worry. You can use this exact same technique to match the color of all the images. The power of Photoshop can "fix" anything if you know the technique. The easiest of course is getting it right, right from the start at the camera. If you don't, just remember you can deal with it in Photoshop if you have the key to the door.

Stitching

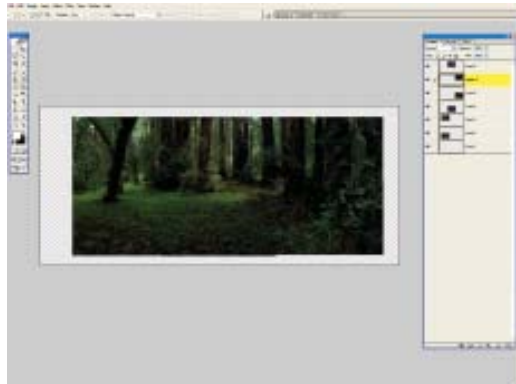
This is the part of the image assembly where we are truly stitching the six images together. It's really very easy, especially if you did everything at camera correctly. If you didn't, then you'll need a whole other PS course to get you back to where you want to be now. We're going to assume that you did everything correctly at the camera.

The very first thing I recommend is you go to Fullscreen mode. You accomplish this by tapping the F key. This makes a number of keystrokes available to you that can make the work faster and a bit more fun. It also makes the background a neutral gray, which helps the color perception. One PS option that can make this next step a little faster as well is, with the Move Tool, select Auto Select Layer. You'll find this option in the top, left corner of the PS window. Check the box that permits you to select a layer by simply clicking on it, rather than having to go over to the Layers palette and selecting the layer. What we're going to do now is critically align the six images, stitch them together.

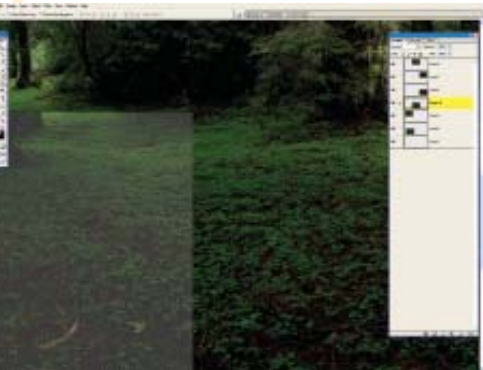
Which of the six images do you start with? I typically recommend the one image that is the most dominant, the central image to the whole UWP. Typically, this is the bottom, center image. Using this idea then, the first image to align would be the bottom left corner image. There are two things you're going to want to do to make this easier on yourself, enlarge the whole image

and change the layer opacity. By holding down the Space Bar and then the Ctrl (Cmd) key, the cursor becomes a magnifier. Drag this over the seam of the two images, which will then enlarge just that section of the UWP. With the Auto Select Layer active, just tap the layer you want to first align (that layer will be highlighted in the Layers palette). In the Layers Palette, at the top of the palette, you'll see Opacity. We're going to lower the Opacity to aid in aligning the two images. Take the Opacity down to about 90-95%.

Using your Move Tool, make some gross adjustments to get the two images basically aligned. You're aligning by simply looking at the elements in the photograph to match up the seam. The first move you make might send your computer and PS into a fit, don't panic! Remember, we're dealing with one big ass file! Watch the hour glass and be patient, the shock to your computer



SC6



SC5

system, and yours, will go away in a few heartbeats and life will come back to both. The Move Tool can do a lot of the "stitching" for you, but remember you can make critical movements of the one image, which is now a layer, using the up/down, left/right arrow keys. SC5

Will everything look perfectly aligned at this point between the two images? Sometimes yes and sometimes no. If you did *everything* perfectly at the camera, then most likely the vast majority of the two images will perfectly line up. If there was the slightest change in focus, camera level, lens shift, anything, then the two images won't perfectly align 100%. But not to worry if this is the case, we'll take care of that in a moment. With those two images aligned, you can move on to

the next image. Type Ctrl (Cmd) 0 to bring the image back down to fill the entire screen.

Working on the next image found going clockwise, repeat the steps above. Do that with all the images until they are all matched up with each other. I personally recommend saving the file each time after you've aligned an image. Yes, you can use Ctrl (Cmd) Z to undo a mistake, but just keep in mind we're working with big files.

DON'T go by the outside border of the images to line them up! Yes, in theory they should all line up perfectly so you have a nice, clean edged rectangle. But that's not always the case. Don't worry about that one way or the other. When all six images are stitched and I'm sure all is perfect, I do another Save As when I change the file name and type. This is just my own preference and has no technical reason. I'll change the file name by adding an L at the end, which stands for Layers and the file type to TIFF from PSD. I NEVER delete the PSD, but keep that file even though I'm done with it at this point. SC6 Now it's time to hide all the lines between the images, which is so much easier than you might think!

Melding the Six into One Image

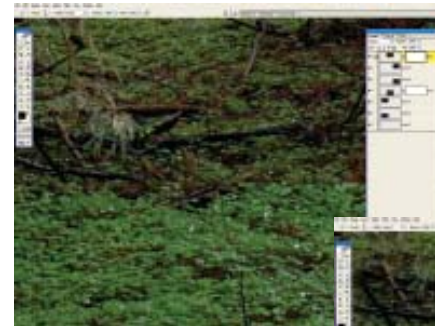
With the power and genius of PS, this is really easy to accomplish. Select any layer where you want to begin. I typically start with the top, left image. With that layer active, making sure your foreground color is white, click on Add layer mask (Zen icon at the bottom of the layer palette). This creates a layer mask in that active layer. SC7 With that layer mask now active (double box around the mask), we can conceal those elements of that layer we want to blend.



SC7

This is a very important concept you need to understand about PS. White reveals and black conceals. Working with layers and adjustment layers, we can make changes to the file, which are never permanent. A lot of this is done with layer masks. Layer masks when first created can either be white or black. A white layer mask indicates that any change that was made is being totally revealed, as in

you can see the change on your monitor. A black layer mask means that any change that was made is concealed, so you can't see the change in the image on the monitor until you do something to reveal it. With a white layer mask, which is revealing everything, you



SC8-9

affect a change by painting with black. (With a black layer mask, you reveal by painting with white). The layer mask we created is white so we need to paint with black, therefore hiding portions of the image that is currently totally revealed.

So, we now paint with black. Make sure your foreground color is black (tap X to switch foreground/background colors), tap B for brush (making it a soft edge brush) and tap 5 to change the brush Opacity to 50%. Enlarge a seam (Space - Ctrl (Cmd)) and then start painting. In a perfect world, you might not have any seam to conceal so move on to the next image. (You'll probably see it later on once you've trained your eye what to look for.) Repeat the

process of making sure your foreground color is white, click on the Add layer mask and then select black foreground color and then brush. SC8-9

Look closely at these two screen shots. You can see the obvious seam in the one between the two images. By using the Brush and painting with black, you can instantly "conceal" one image and "reveal" the other and in the process make them perfectly meld together. Too way cool! What if you revealed too much of one image? What if you conceal too much and you see the transparent layer underneath? Both are real simple fixes, just paint with the opposite color. So, if you make a mistake and you're painting with Black, tap the X key and paint over the same spot with white. Painting with white, switch to black and fix your mistake. It couldn't be any easier.

When you're all done taking care of the seams, your layer palette will probably look something like this. SC10 You'll notice that not every layer mask has any black on it, indicating nothing was concealed. You'll notice that in this particular image, one image has a lot of it being concealed. I've found it tends to go that way. This is in part because of how I shot the image. I tend to find objects in the photo that fall on these seams that I can use to make



SC10

blending of all six images faster and easier. Up to this point, I probably have 10 minutes invested into this UWP. That's all, now of course I've been doing them for awhile and I'm using dual monitors, one of them being a Cintiq 21UX. This vastly speeds up the process!

At this point, the UWP is completed in that there is just 1 photo now. This is when I do another Save As. Why another Save As? The file I just completed was 1.9GB! When I do the next step, it's back down to only 989MB. That's one reason. Next, I do a Save As so I always have the last major step saved that I can come back to in the future if I ever need to and not start over from scratch. First, I save everything I've done to the current file. Next, I do a Merge Visible, which flattens all my layers but preserves my

transparent background. Now I do a Save As, saving the file as Muir Woods #2 ML (Merged Layers). The first two files have been moved into the 2x3 Pano file and now I'll just be working with this file to create my final image. No, the digital darkroom work is not finished, it's just begun!

Finishing the Story Telling

The photo at this point is missing one major component, light! We're going to take a play right out of my best bud's playbook. It's a Lighting Effects Style I've saved, naming it the Vinnie Special. Keep in mind that this photo was taken in the rain, so there was no directional light only light coming through the clouds and then through the redwood canopy. But with some forethought when the UWP was taken, a little PS skill and imagination and we can light in the computer.

We start by switching from 16bit to 8bit. Next, we're going to duplicate the original layer. This is accomplished by simply grabbing the layer and dragging it down to the Create new layer icon at the bottom of the Layers palette. This automatically duplicates the layer. We're doing this because we don't want to make permanent changes to our main layer/photo. Creating a new layer gives us flexibility to go back and change things later if we feel so inclined.

We're now going to call up the Lighting Effects dialog box (Filter > Render > Lighting Effects). This is a very cool tool that Vincent brings to light in every class he teaches (Get it? Lighting Effects, brings to light, ha...it's a joke!) This marvelous tool brings an amazing amount of math to your fingertips, permitting you to literally light a scene, if you already understand light. This technique cannot save you if you don't know light. Lighting in Photoshop plays by the same rules as the real world. **SC11**

The Vinnie Special as I've saved this recipe goes like this. With the Lighting Effects dialog opened, first select Soft Omni for Style. (You'll see in my screen shot the name Vinnie Special.



SC11

Photoshop doesn't save that as a default, you're in the process of creating it.) To the left of the dialog you see a preview of your image with a dot with four orbiting moons, this is our lighting director. In this UWP, I'm going to grab the center dot

and place it where I want the first lighting

pattern. I'm now going to set the Properties for the lighting pattern that I just created. Vincent recommends starting at the bottom of the list to set the changes, which is what I do. Set Ambience to +32, Exposure to -33, Material to 100 Metallic and Gloss to 50 Shiny. (If you want to understand all of these settings, head to the Photoshop Help.)

This has created one beam of light coming through the redwoods, going right to left. So the light is brighter on the right than the left. This is how light, if coming through the redwoods would be streaming through. But more than likely there would be more than one beam of light. No worry, we can create more beams of light while we're in the Lighting Effects dialog box. Click light bulb below image preview and drag it into the preview. This gives you another light, one which you can rotate to create the proper lighting pattern. Click on the light bulb again and you now have three beams of light coming through the canopy. Click OK and watch the Photoshop magic! (You can do like I've done, save this formula as the Vinnie Special, works pretty sweet!)

The finishing touches are now pretty simple and straight forward. I head to my favorite polishing tool, nik Color Efex Pro 2 (CEP2). In this case, to finish off the glow of the light paths I just created, I'm going to use Brilliance/Warmth. Using CEP2 as a layer and with a soft edge brush at 20% opacity, I'm going to paint in areas where the light if it were truly present, would have sent to glow. It only takes seconds and a small amount of warmth here and there to finish it off.

At this point, I do my last Save As. Using the Rectangular Marquee Tool, I crop the UWP, which just cleans up all the outside borders so they are nice and neat. I Flatten the image and then do a Save As



Muir Woods #2 F, F=final. Now when I want to print this puppy, I call up this file, size it, sharpen it with nik Sharpener Pro 2 and click Go!

I've created just short of a hundred of these panos in the last year. I just love doing them! After

doing so many, I find it literally only takes minutes to capture the six images and only minutes to assemble them. I've assembled many of them waiting to get on a plane. I more than understand that the whole process from shooting to assembly seems scary as heck. I surely hope I've taken some of the fear out of you and replaced it with confidence and inspiration. We are truly very fortunate individuals, being able to wander this great planet, witnessing and capturing its wonders to inspire not only ourselves, but also others. I invite you to take this technique and make it all yours. I'm pretty confident that after reading these two TNews, you'll understand it's still about photography, imagination and passion. Because it's a lot more than stitching!



Above is the UWP of Muir Woods completely assembled and ready for its finishing touches. Below is the finished UWP after Vinnie's Lighting and nik Brilliance/Warmth filter have been applied. You can see that finishing the story telling is just as important with UWP as with any other photograph!

