

range Bytes

Volume 46 No 1

Jan 2022

\$1.50

IN PERSON MEETINGS ARE BACK! NOCCC meetings for Sunday Jan 2, 2022

MAIN MEETING Pres. Robert Strain

Will attempt doing a presentation on January 2nd using a windows 10 computer with virtual Box installed showing several operating systems installed as virtual machines. a real life continuation of the video presentation I made in October that didn't work in December due to hardware problems.

Special Interest Groups (SIGs) & Main Meeting Schedule

9:00 AM – 10:30 AM

Beginners Digital PhotographyScience 129

Questions and Answers about Digital Photography

Linux for Desktop Users.....Science 131

Beginners' Questions about Linux

10:30 AM – 12:00 PM Noon

3D Printing Irvine Auditorium

Questions and Answers about 3D printing

Advanced Digital Photography... ..Science 129

Questions and Answers about Digital Photography

Linux AdministrationScience 131

More topics about the Linux operating system

Mobile ComputingScience 109

We discuss smartphones, tablets, laptops, operating systems and computer related news.

VBA and Microsoft Access/ExcelScience 127

Using VBA code to enhance the capabilities of Access and Excel

12:00 PM Noon – 1:00 PM

3D Printing..... Irvine Auditorium

Questions and Answers about 3D printing

PIG SIG Irvine Courtyard

Bring your lunch. Consume it in the open-air benches in front of the Irvine Hall. Talk about your computer and life experiences.

1:00 PM – 3:00 PM Main Meeting

..... Irvine Auditorium

Pres. Robert Strain on Virtual box

3:00 PM – 4:00 PM

Board Meeting.....

Verify your membership renewal information by checking your address label on the last page

Mark your calendars for these meeting dates
2022: Jan 2, Feb 6, Mar 6, Apr3, May 1

Coffee, cookies and donuts are available during the day in the Irvine Hall lobby.
Foods and drinks need to remain outside the Irvine Auditorium.

“Friends Helping Friends”
since April 1976

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December Main Meeting summary 2

The summary of the Windows 10 Virtualbox presentation by Robert Strain was that hardware incompatibility problems can be frustrating. So for those of you that haven't been back to the auditorium, some things have changed. More in the report later on.

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Special email addresses
editor@noccc.org
membership@noccc.org

Our Website
WWW.NOCCC.ORG

Reminder: Membership expiration dates have been advanced by two years. So expire in Feb. 2020 is now Feb. 2022, Mar.2020 is Mar. 2022 etc.

Board of Directors

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Editor's Report

Editor: Jim Sanders

I ran across a number of interesting computer articles again this month and I would love to save time and effort and just copy them. But again, out right copying is frowned upon. However there are a couple that I want to plagiarize. As noted, the club is back to in-person meetings at Chapman University. **You still need to go to:**
https://chapmanu.co1.qualtrics.com/jfe/form/SV_eVx4H7TOlNNChsa **to fill out their COVID form, Preferably at home, the day of or day before the meeting.**

The December Christmas meeting was intended to be a raffle meeting. However, the best laid plans and all that. It was also planned that as a special treat, the club would sport to have pizza and bottled water available at lunch time for all in attendance at the meeting. Timing for placing the order so that the pizza would at least still be warm was predicated on normal availability for pickup times. Needless to say, that didn't work out as planned.

I am sure that you have all heard the following announcement: "I am sorry, but we are experiencing an unusually high call volume and there will be an X minute delay to speak with a representative." For the pizza place that could be modified to: "I am sorry, but we are experiencing unusually high order volume and there will be a 30 minute delay to pick up your pizzas." So a number of members who hung around for the pizza decided to heck with it and went home. The pizza arrived at the beginning of the main meeting. That created another group of interrelated problems with different solutions. We could run the risk of being sanctioned for violating Chapman's rule about not having food and drinks in the auditorium. Not a great idea. We could continue with the Main Meeting and have cold pizza. Not a very appealing idea. We could pause the Main Meeting, have everyone move to the Science 131 class room, have the warm pizza there, and then return to the auditorium. The last option was deemed by one and all as the best option. So we did that.

By the time that all but two pieces of pizza were left and we had returned to the auditorium, a large chunk of the Main Meeting time slot had been used up. The happy taste buds, filled tummies, and enjoyable banter, if sometimes hard to understand around mouths full of tasty pizza, made it worth the delay and move.

So as noted on page 2, Chapman University has mad some changes to the audio video hardware in the auditorium. All of the equipment used to be in a cabinet against the wall on the left as you faced the screen. A mobile podium floated more or less in front of the cabinet. What we have now is a fixed in place, fancy desk in the middle of the floor in front of the white board. I say fancy because with the push of buttons you

activate an electric motor that will raise or lower the surface of the desk. Next to the desk is a cabinet that holds equipment that is similar to what was in the old cabinet. On the surface of the desk are two monitors. One is hooked to a University computer. The second has a full size HDMI cable that can be hooked up to your own computer.

There in lies the setup problem that Robert ran into as he tried to setup for his demonstration. The computer he had brought to use for the demonstration only had VGA or DVI, no HDMI. The equipment in the old cabinet included a VGA connection. The new cabinet does not. It was asked if anybody had a DVI to HDMI adaptor. I heard one really helpful comment. "I have one at home." I tried to come to the rescue by loaning him my laptop that does have an HDMI port. But for some undetermined reason, the Virtualbox software did not want to install on my laptop. After trying multiple times to get a successful install, Robert decided to give up for the day. As a result, he said he would try it again in January.

As a result of all of that, there were not that many members left in attendance. While the raffle has usually run a deficit for some time, it was decided that there just were not enough people present to buy a reasonable number of tickets. The raffle was postponed till the January meeting. In January, we will have a raffle with several prizes. See picture further on. Remember, parking tickets, and/or wearing a club shirt with badge, gets you a free raffle ticket.

One of the interesting articles was in the latest Maximum PC magazine and dealt with the history of miniaturized personal computers. The article gave the Tandy/Radioshack TRS-80 Pocket Computer introduced in July of 1980 first of breed honors. You might find it interesting to Google "miniature personal computers from 1980 on." Another search is "miniature PC laptop OR netbook computer from Shenzhen China." An interesting YouTube video: <https://www.youtube.com/watch?v=7tYEbv26AFc>

Board meeting minutes for December 2021

NOCCC_Board_2021_12_05

The meeting was held in room 129 of the Chapman University Science Hall. The meeting was called to order by President Robert Strain at 3:23 PM. Present were: President Robert Strain, Vice President Jim Sanders, Treasurer Don Armstrong, Secretary Bob Dickson, Terry Dickson, Dennis Martin, and Richard Miller.

Secretary's report: All members of the board were present.

President's report: The minutes for the November meeting were published but were not formally voted on by the board. Bob moved to accept the published minutes for the November meeting. Richard seconded the motion. All voted approval as published.

Robert noted that the first club meeting in 2022 would be on January 2, the first Sunday in January. Bob suggested that the club not hold the January meeting on the first Sunday as that would be the 2nd day of the year and be too involved in people still tied up in end of year activities and travel. It was noted that the university would still be closed. After some discussion, Robert stated he would contact the school to see if the club could meet on January 9, the second Sunday of the new year.

Robert was pleased to note the attendance to a couple of members who attended the day's meeting hadn't attended a meeting in almost 2 years.

Vice President's report: Jim noted that the material for the December publication was received by the publisher 2 hours after the time to be published which is why the publication was not received by many of the members prior to the date of the meeting. Those who did receive the publication before the start of the meeting noted that it was a good publication. Jim noted that he had a great deal of trouble trying to make MS Word act like a desktop publisher. That in some cases, if you make one change, it can modify the formatting on several pages. Rather than continue to fight MS Word, he took the time to convert the Orange Bytes newsletter to the MS Publisher format. He noted that it makes change a great deal easier. Jim and Robert noted they will work together to prepare online publication to be listed before the next meeting.

Treasurer's report: Don noted he received dues payments for 2 members which should extend their membership until October 2022. He paid \$90.00 for 6 months for domain hosting and \$50.00 for the yearly membership in the APCUG. It was noted that the club data base needed to be updated to reflect the clubs voted upon response to the COVID shut down. That is, any member whose renewal date was in February 2020 or later, would have two (2) years added to that date. **Example: renewal date was March 2020, it is now**

March 2022. August 2020 would become August 2022 and so on.

He brought up the topic of all of the books on the shelves in the hall by the store room. He'll try to get more info on whether or not the club might be able to get approval to use those shelves. If not, he suggested the club consider getting an individual case to hold and display the books he's currently holding for the club at his house. Speaking of his house, none of the printed November Bytes had postage stamped on the newsletter. Some of them, the USPS delivered anyway, but nine of them were bounced to Don's house. He said he put real stamps on them and re-mailed them.

Member ID: Dennis noted that he needs information to be able to create the ID badges for the members. Jim said he'd get Dennis the info to be able to create the badges.

There was a short discussion about putting the PDF that contains pictures of all of the camera equipment that was bequeathed to the club after Larry Klees died. Letting Samy's camera shop make a bid on the equipment was talked about.

January presentation: Robert stated that he'll work on getting a computer with the right video connector for the projector equipment for the January meeting. Jim noted that he'll help Robert regarding the equipment for the presentation.

Adjourn: Bob moved to end the meeting; Dennis 2nd; the members all voted to end the meeting. Robert noted the time was 4:20 PM.

Solid State Drives

Tom Burt, Sun City Summerlin Computer Club
Solid State Drives (SSDs) have been around for quite a while. However, prices have come down while capacities and performance have gone up. As a result, adding an SSD to an existing system has gone from being a luxury to a practical way to increase the performance of a desktop or laptop significantly. SSD capacities have grown from 32 GB to 64GB ten years ago to 256 GB, 512 GB, and 1 TB today. So if you're flush with cash, you can get a 2 TB SSD.



A majority of SSDs are sold as 2.5-inch drives with a SATA controller and power supply. These drives look to PC hardware and software just like a regular hard disk drive. Most SATA SSDs are rated as

SATA III, which can deliver data between the drive and the motherboard at 6 billion bits per second. Sequential read/write speeds are now up in the range of 500 Megabytes per second for top-line SATA III drives. In addition, for random I/O, high-end drives are rated at up to 100,000 input/output operations per second. This makes SATA SSDs about three times faster than hard disk drives.



Two new SSD PCIE card form factors have begun to supplant the SATA format in the past five

years. One is a small card that combines flash memory chips and a SATA controller. It plugs into a special M.2 socket on the motherboard. To the PC's CPU, it appears as a secondary SATA controller. These cards are recognizable because they have two notches (B+M) in the connector end. Performance is comparable to a 2.5 inch SSD, but the card takes up much less space and uses less power. As a result, these are now popular in laptop PCs.



The second new form factor is called NVME (Non-volatile Memory Express). An

NVME SSD does not include a SATA controller; it is directly connected to the PCIe data bus of the motherboard via a simple memory controller interface. The NVME SSD card also plugs into an M.2 socket on the motherboard. The NVME SSD card only has a single notch (M only) in the connector end.

For more details on the M.2 slot, see the following: <https://www.howtogeek.com/320421/what-is-the-m-2-expansion-slot/>

Topline NVME SSDs like the Samsung 980 Pro above can read data at up to 7000 megabytes (56 gigabits) per second if installed on a motherboard supporting PCIe 4.0. This is about 12 times faster than a SATA hard drive. The 1TB 980 Pro unit retails for about \$200. A mid-range unit like the 1TB Samsung 970EVO retails for about \$140 and can read at up to 3500 megabytes (28 gigabits) per second.

The significant performance difference in SSDs is that

they can instantly access a block of data anywhere in the drive's memory. By contrast, a hard disk drive must position the read/write heads to the correct track and then wait for the desired block to rotate under the heads. This access time can take up to 10 milliseconds or more – easily 5,000 times longer than the SSD. In addition, the newer NVME SSD cards can transfer data 6 to 12 times faster than a SATA drive can.

Upgrading a PC to use an SSD can take either of two routes: adding the SSD to an existing desktop PC while keeping the PC's original hard drive installed; the second is to replace the PC's hard drive with an SSD. The second approach is the only practical one; there isn't room in the laptop for two drives. However, the first approach may be more satisfactory for desktops since it combines high performance while not forsaking high storage capacity. For example, you can use the SSD to store the operating system, applications, and very frequently accessed data files and then use the much larger hard disk drive to store all your other documents, photos, music, videos, and such.



Most new motherboards come with at least one M.2 connector, so adding an NVME or SATA M.2 SSD is possible if you're building a

PC desktop tower. In the image at the left, there are screw holes for three different lengths of M.2 card. 80 millimeters (the one with the screw) is the commonest. For commercially-made brand-name desktops, you may have to go with a 2.5 inch SATA III drive connecting via a SATA cable to one of the SATA ports on the PC's motherboard. In a laptop, that will also likely be the case; you will replace the laptop's hard drive with a 2.5 inch SATA SSD. However, for a desktop without an M.2 connector, you can also buy a PCIe to M.2 adapter card that has an M.2 connector on the card and plugs into a PCIe slot on the motherboard. These adapters cost \$10 to \$15.

For a tutorial on installing an M.2 SSD, see the following:

<https://www.techradar.com/how-to/how-to-install-an-m2-nvmesata-ssd-on-your-pc>.

In upgrading to an SSD, you will need to consider whether to reinstall your operating system (Windows, Mac

OS, possibly Linux) and applications from scratch or attempt to copy (clone) your existing system to the SSD. If you wish to copy your current hard drive's system, you will need an imaging or cloning tool such as Acronis True Image, Casper, or Macrium Reflect. The challenge is to get the size of your operating system's hard disk partition to be no larger than the size of your

new SSD. There are many complications related to this, and details are beyond the scope of this article. However, you might want to stop by our Tuesday Hardware / Software Repair SIG and get some advice before diving into an SSD upgrade.

If you're now convinced, an SSD is the way to go, what's the best size and make to buy? Lower-end SATA drives are often on sale for about 12 cents per gigabyte. These drives are OK but may not be as fast as the top-end drives. Higher-end drives are selling for about 20 cents per gigabyte. The Samsung EVO series drives get very high ratings and have some of the best performance specs at very good prices.

Other brands are good also but read the recent reviews carefully. A few years ago, some vendors got good initial reviews on their solid-state drives and then switched to cheaper, slower memory chips. Check the usual online stores (Amazon.com, NewEgg.com, Tiger-Direct.com) and watch for sales. A 500 GB drive is very attractive at current prices, and you will most likely not run into capacity issues.



The Photo SIG

We described the use of multiple photo editing programs to edit a single photo. A

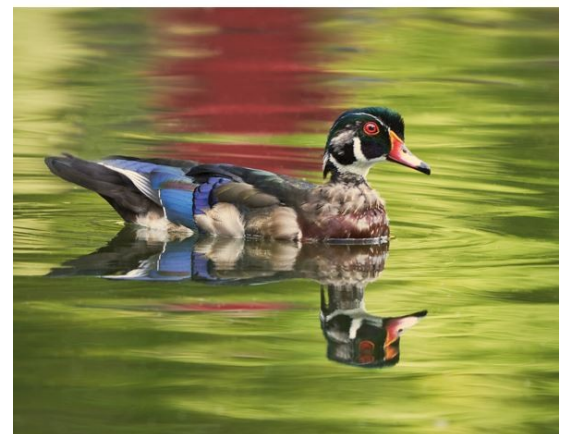
photo of a Wood Duck was processed for printing. The photo was taken using a Sony A7R4 camera at 60 mega pixels in 14 bit per pixel raw format. The photo was first edited by using the Capture One photo editing program. The intent was to adjust the photo so that it was as I had recalled the scene at the time that the photo was taken. The resultant photo was then exported in 16 bit Tiff format at the same pixel resolution as the original photo.

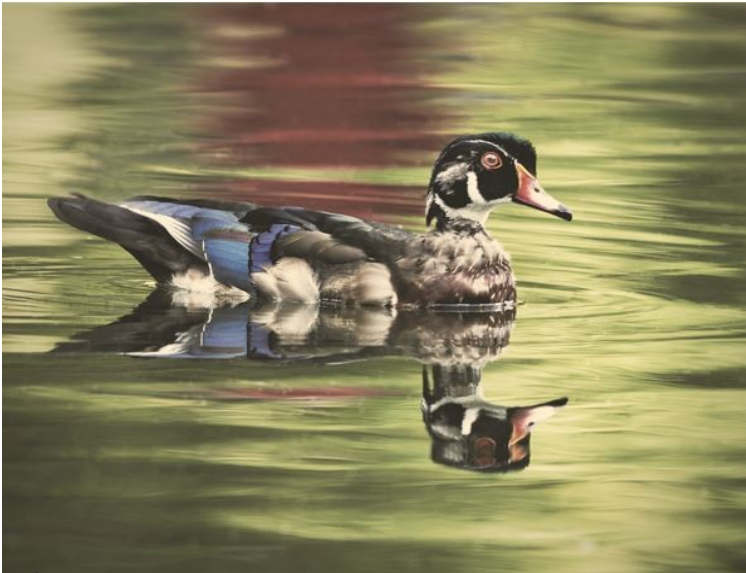
The exported photo file was then 'Opened' in Photoshop, the photo was rotated slightly so that it was level and 'cleaned up' mostly by removing the debris floating in the water nearby the Wood Duck. The Photoshop image rotate feature and its healing brush & clone stamp tools were used.

Photo editing was not complete at this point because the photo background was too bright for

me with large bright red & green areas behind the Wood Duck which tended to draw attention away from the Wood Duck, the subject of the photo. See Wood Duck Photo 1. The background color hues needed to be less bright, with color saturation and luminosity probably lowered. To tone down the background photo colors, the photo was 'flattened' and exported in 16 bit Tiff format with the same resolution as the original photo. The resultant photo was then imported into the **DXO** photo editing program. Using the **DXO** photo editor, a photo edit preset was selected to adjust the background colors. The photo was then exported out of DXO software in 16-bit Tiff format at the same resolution as the input photo. The resultant photo was then copied into the Wood Duck Photoshop photo file to a separate top layer. See Wood Duck Photo 2. However, at this point, the colors of the Wood **Duck** were also muted. So to finish the photo, a Photoshop layer mask was used to block the **DXO** changes from being made to the image of the Wood Duck itself, applying the muted photo color changes to the background only. See Wood Duck Photo 3. The Wood Duck photo was then printed on matte paper using Photoshop. The above is an example of how multiple photo editing software programs can be used to edit a single photo. Photo editing is largely a subjective process. Capture One software is based in Denmark while Photoshop is based in the USA and **DXO** in France. I have attached three photos to support the write-up above.

Thanks,
Denji





Picture B



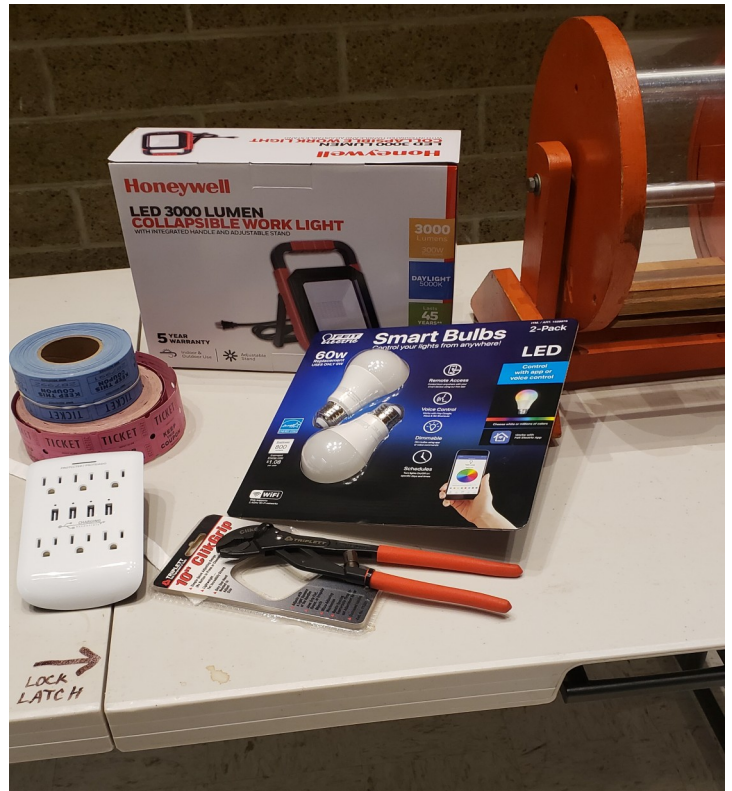
Picture C

Of course it is almost impossible to tell the difference in the black and white printed version of the Orange Bytes. It is not that easy to see the changes in the PDF version of the Bytes. If you copy all three photos and set them up in a viewer like Irfanview so that you can switch back and forth between them, the changes are more easily seen.

Raffle

As was noted earlier, if there are only a handful of members present to participate in the raffle, it is not fair to

the clubs treasury or other club members to hold the raffle. It was/is our intent to hold the raffle in the January 2nd meeting. However, it is on January 2. It was brought up at the Board of Directors meeting that the January 2nd date is not going to be conducive to attendance. That with the stuff that goes on around New Years in particular and the holidays in general, making the club meeting may be a tough decision. Between the 12-5-21 BOD meeting and when this was written, Pres. Robert Strain tried to contact Chapman University facilities to see if it would be possible to move the meeting date to January 9th. Sadly, he did not receive a reply at all, and certainly not one in time to deal with all of the logistics involved in changing the meeting date. **So, inconvenient for all of you club members or not, the meeting will be held on January 2nd. If the raffle is held, these and a couple more will be the prizes.**



I changed my password to "incorrect" so whenever I forget what it is, the computer will say "your password is incorrect."

**North Orange County Computer ClubDr.
 Donald Armstrong
 709 Rosarita Drive
 Fullerton, CA 92653**

To All Members:

The line above your mailing address now shows your joindate. Please use your join **month** to choose when to renew your membership.

Dated Material – Please deliver before Jan. 2, 2022

| Membership Level (\$) | 1 Year | 3 Years |
|---------------------------------------|--------|---------|
| Individual Member | 35 | 90 |
| Each Additional Family Member | 15 | 40 |
| Full-Time* Enrolled College Student | 20 | |
| Enrolled High School Student | 15 | |
| *Minimum 12 Semester Hours | | |
| Business Member + Ad (Business Card) | 180 | |
| Business Member + Ad (¼ Page, ½ Page) | 465, | 800 |
| Business Member + Ad (Full Page) | 1,475 | |
| Contributing Member | 75 | |
| Supporting Member | 100 | |
| Advocate Member | 250 | |
| Patron Member | 500 | |

Directions to the NOCCC meeting location



Enter CA-55 N (Costa Mesa Freeway) crossing Interstate 5 toward Anaheim/Riverside for 9 miles. *Notice freeway and street signs stating "Chapman University."* Exit toward E Chapman Ave. Turn right onto N Tustin St. Turn left onto E Walnut Ave.

1) Turn left past N. Center St. for the **best place to park** in the underground parking structure (Lastinger under the sports field). Pay the small fee (\$2) to park Ask members or help@noccc.org about parking details, restrictions, and our price break!

2) Turn left onto N Center St. On the right is the Hashinger Science Center, 346 N Center St. Orange California. Parking on the University side is free. Parking on the residential side is a city violation that may cost you a tow away and a ticket!