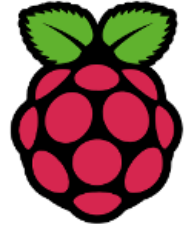


# range Bytes



Award Winning Newsletter of the North Orange County Computer Club

Volume 41 No 6

June 2016, \$1.25

## NOCCC Meetings for Sunday June 5, 2016

We will have Consignment Table and E-Waste pickup this month

### Main Meeting 1:00 PM - Raspberry Pi 3

Jim Sanders, PC Q&A SIG leader will be demonstrating the new and improved Raspberry Pi 3 computer.  
Now with built-in Wi-Fi and Bluetooth.

#### Special Interest Groups (SIGs) & Main Meeting Schedule

##### 9:00 AM – 10:30 AM

**Linux for Desktop Users.....Science 131**

Beginners' Questions about Linux

**Beginners Digital Photography ..... Science 131A**

Questions and Answers about Digital Photography

##### 10:30 AM – 12:00 PM Noon

**PC Q&A & Computer talk.....Irvine Hall**

For anyone that wants to talk about computer stuff.

**Advanced Digital Photography..... Science 131A**

Questions and Answers about Digital Photography

**Linux Administration ..... Science 131**

More topics about the Linux operating system

**Mobile Computing..... Science 109**

We will talk about smartphones, tablets, and computer news.

**VBA and Microsoft Access/Excel..... Science 127**

Using VBA code to enhance the capabilities of Access and Excel

##### 12:00 PM Noon – 1:00 PM

**VBA in Microsoft Access/Excel..... Science 127**

Using VBA code to enhance the capabilities of Access and Excel

**Advanced PC Q&A ..... Irvine Hall**

PC hardware, software and Internet topics

**PIG SIG.....Hashinger Courtyard**

Bring your own lunch. Food needs to remain outside the Auditorium.

##### 1:00 PM – 3:00 PM

**Raspberry Pi 3 .....Irvine Auditorium**

##### 3:00 PM

**Board Meeting.....Science 131A**

#### SIGs in need of a leader

Programming; Visual Programming; Understanding Operating Systems; Microsoft Word, Excel, and Outlook.

#### To update membership information

membership@noccc.us

#### Plan your vacations around these meeting dates

2016: Jul10, Aug7, Sep11, Oct16, Nov6, Dec4.

2017: Jan8, Feb5, Mar5, Apr2, May 7.



**SWUG 1st Prize in 2004, 2005, 2006 APCUG 2nd Prize in 2003, 2004, 2005 Founded April 1976**

Coffee, cookies and donuts are available during meetings in the Irvine Hall lobby.

# LIFE BEGINS AT FORTY

“Friends Helping Friends” since April 1976

## Table of Contents

Main Meeting 1:00 PM .....	1
Special Interest Groups .....	1
To update membership information .....	1
Plan your vacations around these meeting dates .....	1
Board of directors email list .....	2
President’s report by Ben Lochtenbergh .....	3
Submitted by Bob Dickson, NOCCC Secretary .....	3
Prizes to be raffled .....	5
Prizes for next raffle .....	5
Computer Museum by Richard Miller and Bob Dickson .....	5
Consignment Leader Richard Miller .....	6
Facebook posts by Ben Lochtenbergh .....	6
By Terry Dickson, for Linux SIG .....	7
By Bob Dickson, Access/Excel SIG Leader .....	8
By Ben Lochtenbergh, Mobile Computing SIG Leader .....	8
By Jim Sanders, PC Q&A SIG Leader .....	8
By Larry Klees Digital Photography SIG Leader .....	9
Membership renewal, update, or application form .....	11
<b>To All Members</b> .....	12
Fee Schedule for NOCCC .....	12
Directions to NOCCC meetings .....	12

### Club email addresses

[editor@noccc.us](mailto:editor@noccc.us)  
[membership@noccc.us](mailto:membership@noccc.us)  
[help@noccc.us](mailto:help@noccc.us)  
[vote@noccc.us](mailto:vote@noccc.us)

Like us at our Facebook homepage!  
Search Computer Club NOCCC Facebook

## Board of Directors

### Board of directors email list

[board@noccc.us](mailto:board@noccc.us)

### President Ben Lochtenbergh

[president@noccc.us](mailto:president@noccc.us) (cell 1949.331.3917)

### Vice President Dr. Don Armstrong

[vicepresident@noccc.us](mailto:vicepresident@noccc.us) (home 714.773.1187)

### Secretary Bob Dickson

[secretary@noccc.us](mailto:secretary@noccc.us) (home 714.539.1304)

### Treasurer Dr. Don Armstrong

[treasurer@noccc.us](mailto:treasurer@noccc.us) (home 714.773.1187)

### Director Terry Dickson

[terry@noccc.us](mailto:terry@noccc.us) (home 714.899.9913)

### Director Larry Klees

[larry@noccc.us](mailto:larry@noccc.us) (cell 714.394.1870)

### Director Dennis Martin

[dennis@noccc.us](mailto:dennis@noccc.us) (951.926.3065)

### Directory Richard Miller

[richard@noccc.us](mailto:richard@noccc.us) (cell 714.309.1504)

### Director Gerry Resch

[gerry@noccc.us](mailto:gerry@noccc.us) (home 714.772.6667)

### Director Jim Sanders

[jim@noccc.us](mailto:jim@noccc.us) (home 714.544.3589)

## Club Business

### The President's Report

*President's report by Ben Lochtenbergh*

#### Main meeting report.

Writing this it seems like such a long time ago, your president did the main presentation on Sunday May 1, 2016 at 1 PM. We had a good attendance as far as recent main meetings are concerned. We looked at a PowerPoint presentation with images of increasingly severe security violations. These situations must be avoided at all times and actions that should be taken to reduce reoccurrences were offered. I expect this benefited some if not all attendees. When the presentation was over Jim Sanders added a comment demonstrating his view about a certain email issue.



**Membership** On May 22 the NOCCC database was synchronized with the RENEWAL database via a third database called SYNC database. So the renewed dues and mailing changes should be current. This of course is crucial for the delivery of the Orange Bytes. Thank you Dr. Don Armstrong for your volunteer commitment to do this appropriately on behalf of members of the club.

**Election** it is that time of the year again when we must vote for the club's leadership. The annual election of the Board of Directors for the North Orange County Computer Club will take place Sunday June 5, 2016.

- [ ] President Ben Lochtenbergh
- [ ] Vice-president Don Armstrong
- [ ] Secretary Bob Dickson
- [ ] Treasurer Don Armstrong
- [ ] Director Terry Dickson
- [ ] Director Larry Klees
- [ ] Director Dennis Martin
- [ ] Director Richard Miller
- [ ] Director Gerry Gesch
- [ ] Director Jim Sanders
- [ ] Votes for all
- [ ] For Write-in Notes sos

The purpose is to elect 12 members to the Board of Directors for a

term of one year. If you are interested in serving on the Board this is the **best time** to place your candidacy before the membership. At this juncture we have options like vote by simply raising our hands; to assign an Election Inspector person (not a member of the Board, candidate for the Board, or related to a member of the Board) to distribute, collect, and tabulate the ballots; or to postpone the election to the July 10. Email voting has been reopened send your preferences before June 5 to [vote@noccc.us](mailto:vote@noccc.us). This email forwards to a member who is not a Board member. A list of current members will be available at the meeting to determine the right to vote. The Board is also interested in member volunteers to serve as Webmaster, Orange Bytes Editor, and Facebook editor. If you have any questions regarding serving on the Board please feel free to contact any member of the Board of Directors see page 2.

**Orange Bytes** the last page (back cover) has a new mailing label format with enhancements. Normally the first line to a mailing label will print member number and DUE DATE. But if your dues are due the next month it will display member number and Happy Anniversary (hinting you to pay). If the next month your dues are not paid (according to our records) it will show member number and SORRY OVERDUE last US mail issue for:

The idea is to save: postage and the human effort of preparing warning letters by doing dues accounting automatically using some of the programming techniques available with Microsoft Access.

[president@noccc.us](mailto:president@noccc.us)

### Board Meeting Minutes April 3, 2016

*Submitted by Bob Dickson, NOCCC Secretary*

The meeting was held in room 131A at Chapman University Science Hall. The meeting was called to order by President Ben Lochtenbergh at 3:00 PM. Present were: Ben Lochtenbergh, Don Armstrong, Bob Dickson, Terry Dickson, Larry Klees, Jim Sanders, Gerry Resch, and Richard Miller. Absent: Dennis Martin.

**Secretary's report:** Bob distributed copies of the minutes for the 4/3/2016 meeting. Corrections were

required to some of the figures in the Treasurer's report:

[a] "... we received \$38.35 on the investment account..." changed to: "... we received only cents on the savings account ..."

[b] "... the savings account balance was \$3,835.00 and we received \$43.23 in interest on the savings account." changed to: "... the savings account balance was \$1,532.08 and we received \$43.23 in interest on the investment account."

[c] "... board members are authorized to spend up to \$100.00 per month for club needs ...." changed to: "... board members are authorized to spend up to \$100.00 per month for club needs ...".

There was considerable discussion about the \$100.00 that board members could spend without prior board approval. The general understanding is that the individual must use some judgment before making a purchase to prevent a situation where more than one member makes a purchase so that more than one of the same item is presented to the club. Board members ought to be diligent in checking with some other board members to be certain that another board member isn't planning to make a purchase of the item. If more than one item is purchased and the other cannot be returned without a refund, the purchaser will not be reimbursed by the club. A SIG leader could make a purchase for use by the SIG in which case the club becomes the owner of the item. Before making the purchase, the SIG leader should contact an officer and discuss the reason for the item and receive some understanding of the item's value to the SIG. It was noted that this action has only been used rarely over the past several years.

Gerry moved to approve with corrections, Richard 2<sup>nd</sup>, approved.

**President's report:** Ben stated that he's contacted the university for approved meeting dates beyond June of 2016. He's requested the first Sunday of each month, except January, but has not received confirmation of any meeting dates as of today.

**Treasurer's report:** Don reported that as of 4/30/2016 the check balance was \$771.00 and the

savings account balance was \$1,532.12. Don reported the savings account has been arranged to provide backup for the checking account to prevent charges in case the checking account is temporarily over spent [this has not happened but the backup provides some insurance against any fees for temporary excess amount of checks being processed]. Don received bills of \$14.51 for food & supplies, and \$19.98 for donuts. The Bytes for April cost \$165.23 of which \$59.17 was for postage and rest for printing, and for May the cost was \$111.87 of which \$56.73 was for postage and the rest for printing. Don paid \$90.00 to maintain the club web domain name. Domain names are purchased 1 year at a time, and many years can be purchased at one time.

Ben requested that Don email the whole club database to him. Ben's working on locating accounts that are to be deleted from the database so that persons who haven't renewed in a timely manner will no longer receive a mailed copy of the Bytes. Ben noted that he found one member whose dues payment had been posted twice. He's working to clean up the addresses.

Don reported that he's paying \$98.00 a month for the insurance required by the university so that the club can use these facilities. Don noted that Ben has to contact the university and sign new insurance papers for the coming year. Ben requested some information. Ben and Don discussed looking into the current insurance company to see if maybe the club can find as good a policy with another insurance company at less cost. Ben doesn't have a copy of the policy.

Don asked Ben to talk with the university about the student scholarship for the coming year.

Gerry moved to approve the treasurer's report; Richard 2<sup>nd</sup>, approved.

**eWaste report:** The eWaste company was not here in May. [In a report the next day Richard reported that he contacted the eWaste company and they will be present at the June meeting.]

**Consignment report:** The consignment table will open in the month when the eWaste company attends

so the consignment table will be open for the June meeting.

**Raffle report:** Gerry reported the participation was low, only 5 people purchased tickets. Most tickets were distributed in response to parking tickets. Income was only \$22.00.

**May meeting:** Ben provided a presentation on security when using the Internet. Most responses to the presentation were favorable. There were several questions asked during his presentation. Jim Sanders provided some input as well. Ben provided a series of pictures to illustrate his point of interest which assisted in enlightening the participants in the meeting.

**June meeting:** Ben inquired if anyone had any suggestions for the June meeting. There was consideration conversation about possible topics and speakers but none definite. Jim suggested checking the APCUG web site as it has several presentations that could be used for a program. Ben related that he'd like Jim to consider making a presentation. Jim will check the APCUG site as well as consider possibly making a presentation. He said he'd notify Ben in time for the information to be put in the Bytes. Ben said he'll need it at least 14 days before the next meeting if he's to get it into the Bytes.

**Bytes:** The May Bytes was just 8 pages but it was very well presented and received days before the actual meeting. Ben again noted to Don of the need to get the addresses up to date. Ben asked Don to email him the entire database addresses. Don stated he's still working on getting the database to function fully for him. He's feeling better about working with it. There was discussion about the backups of the database. Jim stated he's got a considerable file of the backups but there are some years that will need to be located. He's got several sets of backups but needs to review all of the files to be sure of what years are in those files. Ben asked Jim if he's got backups for the years before he, Ben, became president. Jim will look and see. Ben stated that he's printing a comment on the Bytes to alert the receiver of renewing on time or the next Bytes will not be sent to that person. Ben said he'll email the Bytes following the issue after the person's dues date as one more warning to renew their dues.

**Museum project:** Bob reported that there are seven cabinets that have material installed for viewing. Bob noted that the project display cabinets were being viewed by several persons. One cabinet contains material provided by Jim. It is very informative and very well displayed with information cards on each item.

**Badges:** Ben asked Gerry when will the new members get laminated badges. Gerry said he's got the laminator. Don will have to provide him with the names of persons to get the badges. Gerry said his printer won't currently print any color. Also he needs to get the data arranged into card size. Gerry and Jim will work on getting the badges into production.

**Elections:** No discussion at the May meeting.

**Adjourn:** Gerry moved to adjourn the meeting, Richard 2<sup>nd</sup>, approved. Ben declared the meeting ended at 4:20 PM.

**Submitted by:** Bob Dickson, Secretary

*The Board meets in Science 131A at 3:00 p.m.*

---

## May 2016 RAFFLE

*Prizes to be raffled*

Price information, photographs, winner photographs and winner names were not emailed to [editor@noccc.us](mailto:editor@noccc.us)

Too bad because there was a successful raffle!

---

## June 2016 RAFFLE

*Prizes for next raffle*

Price information and photographs were not submitted on or before May 22 to [editor@noccc.us](mailto:editor@noccc.us) again.

Orange Bytes content is due 14 days before each meeting day!

---

## Museum Report

*Computer Museum by Richard Miller and Bob Dickson*

The Computer Museum display opened officially at the April 2016 meeting, the 40<sup>th</sup> anniversary

of the club. There's material in seven display cabinets in the entrance way of the main auditorium where the main meeting is held. The material in the cabinets has been donated for display by various current and former members as well as friends of the club.

The purpose of the museum project is to reveal to younger persons and reawake in us 'older' persons the technology that gave birth to the Information Processing industry. Generally, the display period only goes back about 40 – 50 years but that period pretty well covers the industry for all practical purposes. The actual display will change over coming months as additional items are donated and placed in the cabinets. The display will continue over the next several months, possibly into the end of the year. You are encouraged to stop and view the contents in the display cabinets. We welcome your comments and additional knowledge about any display item (and corrections to any unintentional inaccurate information we may have recorded on the cards in the cabinets: hey, our memories might have 'softened' over the years.) Students of the university are invited to come view the items and see the equipment that laid the foundation to their Smart Phone World of today.

If you have retained some piece of equipment from 'way back' and are willing to share it with others by being displayed in a cabinet, please bring it to the next meeting (along with the necessary information about the item) so it can be shared with others. Present the item to either Richard or Bob along with the information about the item.

## Consignment Table

*Consignment Leader Richard Miller*

The NOCCC Consignment Table **will** be available in the lobby of Irvine Hall during the June 5 2016 meeting.



The regulations are:

1. Only current members can place items for sale.
2. Non-members can purchase items.

3. The consignment table operates on a 90/10% basis - with the owner getting 90%, and the Club treasury 10%.
4. Fill out a Consignment Table User List and item tags for each item placed on the table for sale. The list is available on the NOCCC website.
5. Each tag must contain the seller's name, NOCCC membership number, an item name, description, and an asking price.
6. All items and money must be picked up no later than 1p.m. on the day of sale.
7. Any items and money not picked up will become the property of NOCCC and will be subject to disposal at the Club's discretion. The club has no storage room available for unsold items.
8. NOCCC is NOT RESPONSIBLE in any way for items bought or sold at the Consignment Table. Each item is sold on an AS-IS BASIS.
9. The consignment table and eWaste truck will be attended this June.

## Facebook Announcements

*Facebook posts by Ben Lochtenbergh*

**Computer Club NOCCC** added a new photo to the album: Application.

May 14 at 8:39am · 🌐

39 is so last year

21 people reached
Boost Post

👍 Like
💬 Comment
➦ Share

**Computer Club NOCCC**

May 6 at 5:53pm · 🌐

Sunday June 5, 2016 will be our next day of meetings.

Jim Sanders SIG leader, past president, member since April 1976, and frequent presenter will demonstrate the latest Raspberry computer at the 1 p.m. the main meeting ending with a raffle at 3 p.m.

Special Interest Groups meet between 9 a.m. and 1 p.m.... [See More](#)

# in Meeting Report and SIG Reports

## Main Meeting Report for May

No volunteer to report on this presentation.

## Main Meeting for June

Who will volunteer to report this presentation?

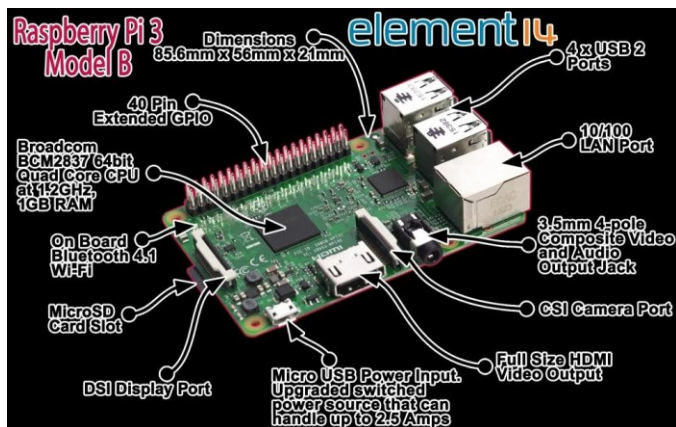
## Main Meeting for July

Pending Board approval, we will have Mark Hammon, a genealogy expert; speak about the role of computers with DNA.

## Pre Main Meeting Report for June

The Raspberry Pi 3 is the third generation Raspberry Pi. It replaced the Raspberry Pi 2 Model B in February 2016. Compared to the [Raspberry Pi 2](#) it has:

- A 1.2GHz 64-bit quad-core ARMv8 CPU
- 802.11n Wireless LAN
- Bluetooth 4.1
- Bluetooth Low Energy (BLE)



Like the Pi 2, it also has:

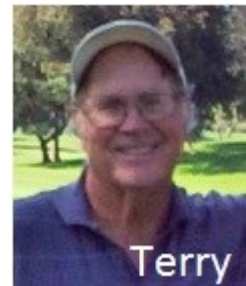
- 1GB RAM
- 4 USB ports
- 40 GPIO pins
- Full HDMI port
- Ethernet port
- Combined 3.5mm audio jack and composite video
- Camera interface (CSI)

- Display interface (DSI)
- Micro SD card slot (now push-pull rather than push-push)
- VideoCore IV 3D graphics core
- The Raspberry Pi 3 has an identical form factor to the previous Pi 2 (and Pi 1 Model B+) and has complete compatibility with Raspberry Pi 1 and 2.

## Linux SIG

By Terry Dickson, for Linux SIG

Last month's Sig meeting addressed the Raspberry Pi™ 3 Model B. 1GB Project Board to be used with Linux distributions. , So This month we reviewed the Intel Atom, a new low-cost board computer that could challenge Raspberry Pi 3.



The Intel Atom has three models of Pine 64 The cheapest, The base \$15 Pine 64 model has 512MB DDR3 RAM

The Pine 64 is similar to Raspberry Pi 3 in many respects. It has a 64-bit ARM-based Cortex A53 CPU, MicroSD slot, ethernet and HDMI ports. But Pine 64 has better graphics, with an ARM Mali 400 MP2 graphics processor capable of rendering 4K video.

The Pine 64 has two USB ports, while the Raspberry Pi 3 has four USB ports. The next a \$19 model has 1GB of DDR3 RAM, a 5-megapixel camera port and MIPI video port.

The \$29 model has 2GB of RAM and also has Wi-Fi, A second generation Intel Atom codenamed Pineview, should greatly increase its competitiveness in performance.

None of the **Intel Atom Pine/or the Pineview** models were available for review. So no testing with Linux distributions could be performed....

**Have fun with Linux...**

*This SIG meets in Science 131 at 9:00 am and 10:30 am*

---

## Access SIG and VBA SIG

---

By Bob Dickson, Access/Excel SIG Leader

The May SIG session was devoted to working with tables and charts in Excel. To support my local church, I volunteer to provide statistics to the church council on a variety of subjects, one of which is tracking attendance at church services. The church has two services on each Sunday, a traditional service from 8:30 AM – 9:30 AM, and a contemporary service from 10:15 AM to 11:15 AM, each service followed by free donuts and coffee or tea or juice (let me know if you want to know which church I attend). I prepare three charts: (a) attendance at each of the services and total for both each week in the most recent 12 months; (b) attendance at each of the services excluding non-typical services such as: major holidays, preschool graduation, Military Appreciation Sunday, etc. in the most recent 12 months, and (c) the weekly change up or down from the preceding week for the most recent 6 months. The sound operator counts the persons in attendance at each service. The charts graphically reveal the ups and downs of the weekly attendance over the recent 12 months while revealing the differences in the seasons of the year. This information assists the church leaders in preparing the events at the church. In particular, it's very helpful in planning events to encourage attendance during the seasons when attendance 'softens'.



Excel provides a wonderful set of charts in a variety of formats that can be used to display statistical figures that are impressive and educational to those who read and use them. The charts are easy to prepare after some education in how they function. There are samples available to help you decide which format would be best for your application. Row and columns of numbers provide exact figures but charts graphically display the impact that typically lies buried in all those numbers. Do you work with lots of numbers trying to 'dig out' the information buried within them? Come on over to room 127 and let's see if Excel might contain some valuable tool that you can use to reveal some truth

that's been buried in them. And if you have been using the charts in Excel and are willing to share your experience, come over and share your usage with us.

*This SIG meets in Science 127 at 10:30 am and 12 noon*

---

## Mobile Computing

---

By Ben Lochtenbergh, Mobile Computing SIG Leader

Besides the usual covering of current events, we will do something new. We know that Microsoft, Google, and the President of the United States want people to do coding. Attracting people to do NOCCC apps did not succeed. Perhaps for a good reason, because if we had, we probably would have discovered more than ten apps doing the same thing ☺☺☺☺☺ ☺☺☺☺☺



Jumping over the possibility of coding our own app, perhaps we should **imagine a need**. When attending a public event in a theater or church we turn off our smartphones. In my example, I turn Airplane mode on. The problem is forgetting to turn Airplane mode off until much later.

I see two solutions: 1) set a Timeout for Airplane mode 2) use Location Aware so that upon leaving the location Airplane mode turns off automatically. I am not going to research that before the SIG meeting. Perhaps one attendee already has such an app and is willing to share what he knows at the SIG meeting...

*This SIG meets in Science 109 at 10:30 am*

---

## Computer Talk and Advanced PC Q&A

---

By Jim Sanders, PC Q&A SIG Leader

There was nothing of any particular note that occurred during the May PC Q&A SIG. So I am writing about an event that I found interesting and I hope you do as well. In the Main Meeting report that I wrote for the 40th anniversary meeting I included the following paragraph about the history of NOCCC: "During the third or fourth meeting, two members brought in Apple One computer boards that they had built from the kit sold by Steve Jobs. Not too long ago one of those computers sold for over \$100,000 at an auction





in England. There were only 500 of those kits sold, and I've often wondered what happened to the two that were brought to the meeting. Did the then proud owners eventually consign those boards to e-waste? And if so, what did they do and think when they heard about the one that sold at auction for that much money."

A recent TV show caused me to think of that paragraph and decide that I needed to go Google some additional information about what I said. It turned out that what I said was true, mostly. What was not true was that club members had built the Apple 1 motherboards from a kit. They had to have been purchased as a completed motherboard through the Byte Shop for \$666.66 plus tax. The auction that I was referring to was definitely over \$100,000 and depending upon your point of view, not too long ago. In fact this is auction that I was thinking about: On Nov 23, 2010, Christie's auction house in London sold an Apple-1 computer for \$213,600 to an Italian collector. The high price was due in large part to the provenance. The rare documents and packaging offered in the sale in addition to the computer, including the original packaging (with the return label showing Steve Jobs' parents' address, the original Apple Computer Inc 'headquarters' being their garage), a personally typed and signed letter from Jobs (answering technical questions about the computer), and the original invoice showing 'Steven' as the salesman.



Apple 1 computers are not as rare as I thought they were based on that auction price. As of 2013, at least 63 Apple 1 computers have been confirmed to exist. Only six have been verified to be in working condition. A number of those have been modified, and very few have the kind of provenance mentioned above. While the \$213,600 is an impressive number and clearly a very nice return on your investment,

there have been additional auctions since. Several have been for over \$100,000. Listed below by date are the four highest auction prices that have been reported.

On June 15, 2012, a working Apple I was sold at auction by Sotheby's for a record \$374,500, more than double the expected price.

On November 24, 2012, a working Apple I was sold at auction by Auction Team Breker for \$515,000.

On May 25, 2013, a functioning 1976 Apple 1 was sold for a record \$668,000 in Cologne, Germany.

On October 22, 2014, a working, early Apple 1 was sold at auction for \$905,000 to the Henry Ford Museum in Dearborn, Michigan. The sale included the keyboard, monitor, cassette decks, and a manual.

A short video of a functioning Apple 1 computer can be viewed at this URL: <https://youtu.be/4V2Qj4-7k7U>. You should take particular note of the speed, or lack thereof, with which the Basic interpreter outputs each line to the monitor. All of the Apple 1 motherboards included a small prototyping area. In the picture of the Apple 1 motherboard there are seven red LEDs and what is probably a seven segment display and accompanying logic which have been added to the original board.

*This SIG meets in the Irvine Auditorium at 10:30 a.m. and 12:30 p.m.*

---

## Digital Photography SIG

*By Larry Klees Digital Photography SIG Leader*

The last couple of meetings were well attended and took the form of lengthy random access meetings with many photographic topics covered.



The June meeting will be a "BRING YOUR CAMERA DAY"

We live in an age when cameras are literally everywhere and everybody is a photographer. People even have pets that take pictures! This makes it difficult to take photos that stand out from the crowd.

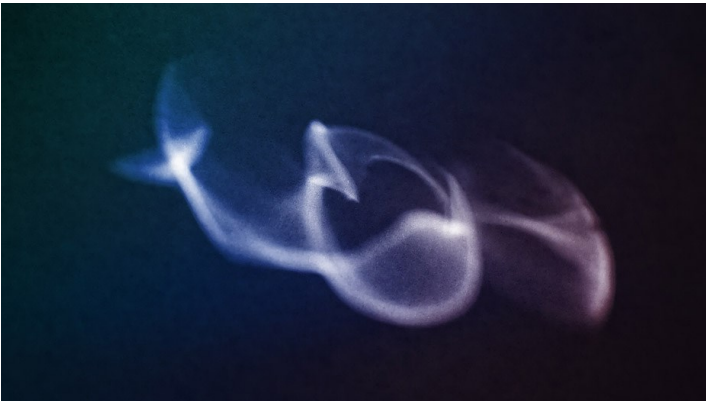
One way to create some standout / unusual images is to use an Aero-hydraulic interface optical computer.

Here are some sample photos of an optical computer's output.

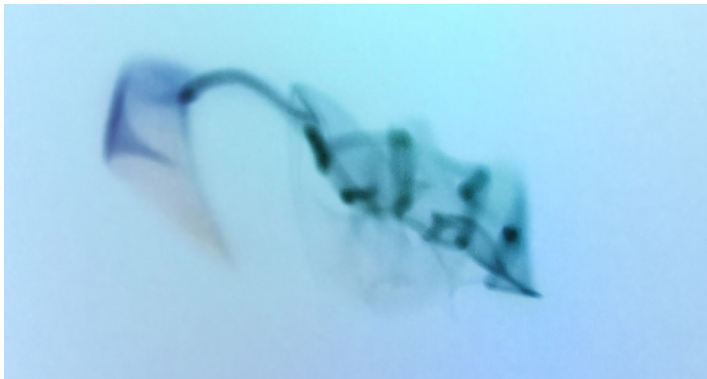
These images can be viewed at the NOCCC\_DP group on flickr.

Try the following link if you don't have a flickr account (accounts are free at flickr.com).

[https://www.flickr.com/groups/noccc\\_dp/](https://www.flickr.com/groups/noccc_dp/)



Dichotomies



Photon Phish

What's an Aero-hydraulic interface optical computer you ask?

You will have to come to the meeting to find out. I guarantee you will be able to make one of your own in minutes when you get home.



Sing? I can't carry a tune in a time bubble

Bring your camera. Almost any kind will work; but the ability to set shutter speed is desirable. The first two images were shot at 1/400th of a second  $f/5.6$  ISO 200. The third was shot at 1 second  $f/2.8$  ISO 400. The camera was about three feet from a projected image that was about one foot x one foot to about 30" x 30". Also bring lots of memory for the camera. You will probably take between 50 and 500 pictures to get a few good ones.

Two or three photographers will be able to simultaneously shoot pictures from each of the two or three optical computers that will be available.

I will bring a computer with Photoshop but you might also like to bring a computer of your own.

I'm looking forward to this meeting. It's going to be fun.

*This SIG meets in Science 131A at 9:00 a.m. and 10:30 a.m.*

Application

## Membership renewal, update, or application form

MEMBERSHIP APPLICATION [ ] MEMBERSHIP RENEWAL [ ] ADDRESS UPDATE [ ]  
EMAIL UPDATE [ ] PHONE UPDATE [ ] OTHER [ ] \_\_\_\_\_

Date: \_\_\_\_\_ My Membership Number Is: \_\_\_\_\_

### *Please Print!*

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_ - \_\_\_\_\_

Home Phone (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Mobile Phone (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Email: \_\_\_\_\_

Fee schedule is on the back cover of the Orange Bytes Newsletter. \$35 Individual Membership.  
Membership fees are 100% tax deductible when paid to North Orange County Computer Club.  
Amount enclosed \$ \_\_\_\_\_ Note: Currently we do not accept credit cards.

Please make checks payable to **NOCCC**

Mail to North Orange County Computer Club, PO Box 5841 Fullerton, CA 92838-0841  
On Sundays hand completed form, with check if payment, to the Treasurer or a Board member.

Version 20151210

---

## Production

These Orange Bytes created with Windows 10 and Microsoft Word 2013® using the True Type fonts Times New Roman and Arial.  
Printed by: Creative Technology, 5959 Palmer Blvd. Sarasota, FL 34232—2841 800-533-1031

**North Orange County Computer Club**  
**PO BOX 5841**  
**Fullerton, CA 92838-0841**

To All Members: Observe the line above your mailing address. It can show your DUE DATE, Happy Anniversary, or when past due "SORRY OVERDUE last US mail issue for:"

# Dated Material – Please deliver by June 4, 2016

## Fee Schedule for NOCCC

The fee schedule has been set up to increase club membership, attract people with an interest in computing and attract local computer-related businesses to place ads in the Orange Bytes with or without becoming NOCCC members.

We are also offering members the opportunity to help our club financially by making donations that should be income-tax deductible since we are chartered as a non-profit 501(c)(3) organization. Donors will be acknowledged in the Orange Bytes and the Membership level will be shown on the Member's Badge. **Your regular dues are tax deductible!**

<u>Membership Level (\$)</u>	<u>1 Year</u>	<u>3 Years</u>
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 NOCCC meetings



## Directions to NOCCC from John Wayne-Orange County Airport (SNA) about 12 miles

Enter CA-55 N (Costa Mesa Freeway crossing Interstate 5) toward Anaheim/Riverside for 9 miles.

Exit toward E Chapman Ave. Turn right onto N Tustin St. Turn left onto E Walnut Ave.

1) 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 may cost you!

2) Turn left for the best place to park. For a small fee park underground in Lastinger Structure under the sports field. Ask members or [help@noccc.us](mailto:help@noccc.us) about parking options, restrictions, and prices!