

April Meeting:  
Dara BORNSTEIN, Hewlett–Packard Technical Representative:  
*WIRELESS PRINTING*

Volume IV (New Series), Issue 6 — June 2014

7:00 P.M. Tuesday (the 24<sup>th</sup>) at the Regional Center, 4801 Springfield Street, about one mile west of the Air Force Museum — Click [here](#) for a map. All DMA meetings are free and open to the public. Plenty of free onsite parking, too. Also accessible via RTA bus route 11 — click [here](#) for a system map. Bring a friend!

JUST AS MORE AND MORE keyboards and mice are becoming wireless, so too are the printers. Most of today's home printers already have Wi-Fi capability. So what are some of your options when you decide to cut the USB cable?

**Print from several computers.** A wireless printer connected to your wireless network can be used by any of the computers connected to your network. The key is to install the printer as "through the network" or as "wireless".



**Print from any PC, tablet, or smart phone.** Wireless Direct is a new feature from HP that allows any Wi-Fi capable device to connect directly to the printer, bypassing the router or access point. Each device connects to the printer the same way it would connect to a wireless network or hotspot. Several security measures are available.

**Print from across the room or around the world.** HP ePrint allows you to print documents and photos from any mobile or internet-connected device to an ePrint-enabled printer. Each ePrint-enabled printer has a unique e-mail address. Print by sending the documents and photos to the printer's e-mail address, allowing you to print from anywhere, at any time.

**The Databus**  
Newsletter of the Dayton Micromonoputer Association, Inc.

—Contents—

June Trustees' Minutes .....	2
Understanding Post Office Protocol (POP).....	4
2 TB of Cloud Storage — <i>Free!</i> .....	6
DMA Calendar.....	8
About DMA .....	9
Membership Form .....	12

**U**SUALLY, Minutes are published almost *two months late*. This is because the Minutes for, say, the May Board meeting must be approved by the Trustees at the following month's meeting — in this case, early June. The May Minutes will thus appear in this June issue of THE DATABUS, which comes out just before the General Membership Meeting at the end of the month.

## MINUTES

### DMA Board of Trustees—Meeting of May 5, 2014

#### CALL TO ORDER

Martin Arbagi called the meeting to order at 7:00 P.M.

**Trustees Present**—Martin Arbagi, Gladys Campion, Gary Coy, Debra McFall, Eric Ottoson, Ed Skuya, Jim Ullom, Ken Phelps, Gary Turner.

#### OFFICERS' REPORTS

**President**—Gary Coy

Gary Coy needs to get the password to the Facebook page in order to maintain it. We may get a Linked In account in the future.

**Vice President**—Ken Phelps

No report.

**Secretary**—Debra McFall

Debra presented the Minutes from the April Board Meeting. Jim Ullom moved the minutes be accepted, Eric Ottoson seconded and the motion passed.

**Treasurer**—Gladys Campion

Gladys presented a revised report on revenue and expense January 1-April 30, 2014. We are in the process of switching the DMA phone to Google Voice.

#### COMMITTEE REPORTS

**Audit**—Gladys Campion

No report.

**Bylaws Review**—Grant Root

No report.

**Funding**—Open

No report.

**Membership**—Dave Lundy, Gladys Campion

We have 104 regular members, 3 associate members, 0 student members and 2 life members for a total of 109 members. Attendance for the April meeting was 40 and the 50/50 Raffle brought in \$37.

**Net Administration Team**—Ken Phelps, Gary Turner

We need to inventory our network presence. We are working on removing dead links from our DMA website.

**Programs**—Jim Ullom

Jim Mann gave an excellent presentation on Windows XP. It was well received and there were many good questions. We have tentatively scheduled Sinclair Community College professor Eric

Renegar to speak on Google Drive for May. This summer we will ask Bob Gosticha to speak on Avast. We may consider programs on Bitmining and Bitcoin, the FBI and Infragard.

**Publications—Martin Arbagi**

The April DATABUS is on the DMA website with Minutes. There will be a DATABUS for May with Minutes.

**OLD BUSINESS**

**Summer Picnic—Martin Arbagi**

We will start selling tickets in June for the summer picnic on Saturday, August 23, 2014 in Shelter 3 at Indian Riffle Park. The shelter has electric power available.

**Holiday Dinner—Glady Campion**

No report.

**NEW BUSINESS**

**Storage Locker Cleanup Committee—Debra McFall, Glady Campion**

Debbie and Glady will get the T-shirts and other small items out of the storage locker to begin selling at the meetings. We will contact SIG leaders to make sure they have removed anything they want to keep from the storage locker. We plan to have a sale at the storage locker some time this summer to clear out items we don't use anymore. We hope to reduce the size of our storage locker by October in order to save money by renting a smaller one.

**Board Meeting—Martin Arbagi**

The next Board meeting will be held Monday, June 2, 2014 at 7:00 P.M. at the Fairborn Fire House. The locations for future meetings will be announced.

**VOLUNTEER OF THE QUARTER**

Gary Turner

**GOOD OF THE ORDER**

May begins open nominations for DMA officers.

**ADJOURNMENT**

At 8:05 P.M., Jim Ullom moved the meeting be adjourned, Eric Ottoson seconded and the motion passed.

***Respectfully Submitted,***

***Debra McFall***



## Understanding Post Office Protocol (POP3)

By Conrad CHUNG, [2BrightSparks](#)

**M**OST INTERNET USERS with e-mail accounts would have used some form of “client” software (Outlook, Thunderbird, etc.) to access and manage their e-mail at one point or another. To retrieve e-mails, these e-mail clients may require the configuration of Post Office Protocol (or POP3) before messages can be downloaded from the server. This article will help readers understand what POP3 is and how it works

### What is Post Office Protocol?

The Post Office Protocol (POP3) is an Internet standard protocol used by local e-mail software clients to retrieve e-mails from a remote mail server over a TCP/IP connection. Since the first version was created in 1984, the Post Office Protocol (currently at Version 3) has become one of the most popular protocols, and is used by virtually every e-mail client to date. Its popularity lies in the protocol’s simplicity to configure, operate and maintain.

E-mail servers hosted by Internet service providers also use POP3 to receive and hold e-mails intended for their subscribers. Periodically, these subscribers will use e-mail client software to check their mailbox on the remote server and download any e-mails addressed to them.

Once the e-mail client has downloaded the e-mails, they are usually deleted from the server, although some e-mail clients allow users to specify that mails be copied or saved on the server for a period of time. [EDITOR’S NOTE: In this context, a *server* is your e-mail provider, for example, Gmail or Yahoo, and the *client* is your e-mail program, such as Thunderbird or Outlook.]

E-mail clients generally use the well-known TCP port 110 to connect to a POP3 server. If encrypted communication is supported on the POP3 server, users can optionally choose to connect either by using the STLS command after the protocol initiation stage or by using POP3S, which can use the Transport Layer Security (TLS) or Secure Sockets Layer (SSL) on TCP port 995 to connect to the server.

### Applications That Use Post Office Protocol

Due to its basic method of storing and receiving e-mail, POP3 is compatible with any e-mail program that has been configured to host the protocol. Popular e-mail programs like Outlook Express support POP3 natively.

Besides e-mail programs that uses POP3 to retrieve mails, this protocol is also used by the backup and synchronization program, [SyncBackPro](#) by 2BrightSparks Pte. Ltd.

SyncBackPro can back up and restore data files (as attachments to dummy e-mails created for the purpose) to and from an e-mail server. The software provides the tools that allow users to store data on an e-mail server like G-mail or Yahoo, as well as to retrieve files from it. POP3 or IMAP4 (another e-mail protocol used for retrieving mails, but not covered in this article) is used for the retrieval or restoration. This feature is useful for example when you want to copy some important documents from office to home but you do not have a USB thumb drive available. You can use SyncBackPro to send the documents to your mail server and retrieve it when you are back home.

Another feature that uses POP3 in SyncBackPro is that it can be used to back up e-mail messages that are stored on the mail server. This feature allows the e-mails from any POP3 or IMAP4 mail server to be backed up. An e-mail backed up using this method is downloaded and stored in

its own self-contained EML file that contains the e-mail body and all the attachments. Note that SyncBackPro cannot *Restore* copies of such backed-up e-mails to an e-mail server — the backup is a one-way process for local safekeeping only. This feature is useful for Web mail users who want a backup copy of their e-mails stored locally to avoid losing them due to, for example the closure of the mail provider Web site, removal or corruption of e-mail accounts or other unforeseen disasters.

### History of Post Office Protocol

The first version of Post Office Protocol was published in a Request for Comments in 1984 as RFC 918 by the Internet Engineering Task Force. Back then, the developers recognized the need to design a simple and effective method of retrieving e-mails from a server. They saw the advantage of reading the e-mails off line rather than accessing the mailbox on line.

In 1985, Post Office Protocol version 2 was published in RFC 937, which was replaced with Version 3 in 1988 with the publication of RFC 1081. POP3 was revised several times in the next ten years, before it was refined to the current specification published on 1996 as RFC 1939.

Although POP3 has undergone several enhancements and refinements, its developers have maintained the basic principle of a straightforward protocol that has a three stage process during mail retrieval between a client and a server. Its simplicity is what makes POP3 one of the most popular mail retrieval methods used today.

### How does Post Office Protocol Work?

When a user checks for new e-mail, the client will connect to the POP3 server. The e-mail client then supplies its username and password to the server for authentication. Once connected, the client issues a series of text-based commands to retrieve all e-mail messages. It then stores these downloaded messages on the user's local system as new e-mails, deletes the server copies and disconnects from the server.

By default, the server e-mails are deleted once they are retrieved. As a result, the e-mails are tied to that particular machine and it would not be possible to access the same e-mails from an e-mail client on another machine. The user could get around this problem by configuring the e-mail client settings to leave a copy of the e-mails on the server.

POP frees up mailbox space on the server because e-mails and attachments are downloaded and deleted at server-end whenever the e-mail client checks for new mails. Offline e-mail messages stored in the user's computer do not have mailbox size limitations except, of course, for the hard drive storage capacity of the PC. One drawback of POP3 mail accounts is that it is difficult for users to export mails if they decide to switch e-mail programs or computer systems.

### Advantages of POP3

- E-mails are downloaded to the user's computer. Messages can be read when user is off line.
- Opening attachments is quick and easy as they are already downloaded.
- Less server storage space required; all e-mails are stored on local machine.
- Storage capacity of e-mails limited by the size of your hard disk.
- Very popular, easy to configure and use.

(Continued on page 6)

### Disadvantages of POP3

- E-mails cannot be accessed from other machines (unless configured to do so).
- Exporting the local mail folder to another e-mail client or physical machine can be difficult.
- E-mail folders can become corrupted, potentially losing the entire mailbox at once.
- E-mail attachments may contain viruses which may expose the user's PC to harm if they are opened locally and their virus scanner is unable to detect them.

### Summary

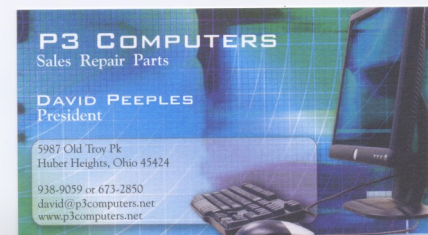
Although POP3 has been around since the 1980s, it still remains one of the most viable and popular e-mail protocols. By storing the mail on the client's computer, it allows the user to read the messages off line, and there are no size limits on the server storage capacity. However, one has to be careful of viruses in attachments, as they can pose a significant security threat to the client's machine.



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### 2TB of Cloud Storage — Free!

By Phil SORRENTINO, Past President, Sarasota PCUG, Florida

January 2014 issue, *PC Monitor*

[www.spcug.org](http://www.spcug.org)

philsorr (at) yahoo.com

**W**ELL, NOW THAT I HAVE YOUR ATTENTION, let me tell you how you can accomplish this without any trickery or dishonesty. (Remember, 1TB is equal to 1,000 GB) Wouldn't it be nice to have all of your pictures, videos and documents available to you whenever and wherever you want them? Cloud storage is a great way to accomplish this. Cloud storage is available from many sources like Skydrive, Google Drive, SugarSync, Dropbox, etc. Some of these cloud services give you from 2GB to 7GB of free storage, but then you pay for additional space (Skydrive provides 7GB free). With over 100GB of pictures and more than double that amount of videos, this could run into quite an expense using one of the commercial cloud storage services.

*(Continued on page 7)*



(Continued from page 6)

The cloud service I'm suggesting is your own computer system with an additional external (or internal) 2TB hard drive. You don't have to use a 2TB drive if you don't need that much storage. Maybe you have an old 300 or 500GB hard drive around that would do the trick. The size of the drive is not important. What *is* important is that the information on that drive will be available to you *wherever* you are. The software that makes this incredible benefit possible is called Teamviewer. Teamviewer is available for your PC, and the Teamviewer App is available for your smart phone or tablet; both the PC software and the App are free for personal use. (Though the App can work on a smartphone, a 4 or 5 inch display is really too small. If you try this on a smart phone, I think you will find that the objects you will want to control will be too small when you try to use your finger to select them. It really works well on a larger display, so I will be limiting my discussion to a tablet with at least a 7 or 8 inch display. It works great on a 10 inch display.)

For this arrangement to work, you install Teamviewer on your home computer, you install the Teamviewer App on to your tablet, and then you leave your home computer on whenever you want access to it and the hard drive. Because I've limited this to tablets, the tablet will have to be in range of a Wi-Fi network, because most tablets only have Wi-Fi. Wi-Fi networks are typically found in many places such as homes, airports, libraries, Starbucks, Panera Bread, shopping centers, and some McDonalds.) If your tablet has cell phone capability then you don't have this restriction.

Teamviewer is a software package used for remote control, desktop sharing, on line meetings, web conferencing, and file transfer between computers. It runs on the Windows, Apple and Android operating systems. The basic features of Teamviewer are similar to Crossloop. (You might remember Crossloop from an article published in the Sarasota PC Users Group *Monitor* in Feb. 2010. The intent of that article was "Assisting another member with a computer problem," but if you'll remember it was stated that "CrossLoop provides a quick, easy, and completely free way to give another member, a friend, or a relative, access to your computer." This remote control feature is also part of Teamviewer, and Teamviewer has the App for tablets that allows these devices to act as remote controllers. As the Teamviewer Website states, "Teamviewer allows you to control computers remotely via the Internet, as if you were sitting right in front of them." The home computer desktop appears on the tablet and you can interact with your home computer by using various touch-screen gestures to control the home computer and its software. Just start Windows Explorer on your tablet with a double tap, (once your home computer desktop appears on the tablet) and then navigate to the Drive you have designated as "Cloud Storage," and navigate to the folders and files of interest. To show a picture, just double tap on the file in question. You can even start a video or music and it will be streamed to your tablet, for your enjoyment. (The video will only be acceptable if you have a fast uplink at home.)

To download Teamviewer for your computer, just go to [www.teamviewer.com](http://www.teamviewer.com) and click on the Download button. To download the Teamviewer App for your Android tablet, just go to the Google Play Store and touch the Magnifying Glass to search for "Teamviewer", and then download the App. The Teamviewer App logo is as shown on page 8.

After Teamviewer has been installed on your PC, start it and you will be presented with a window that gives you a "Your ID" and a "Password" for this Computer. This ID is what you will need

(Continued on page 8)

## —Trustee Nominations Open—

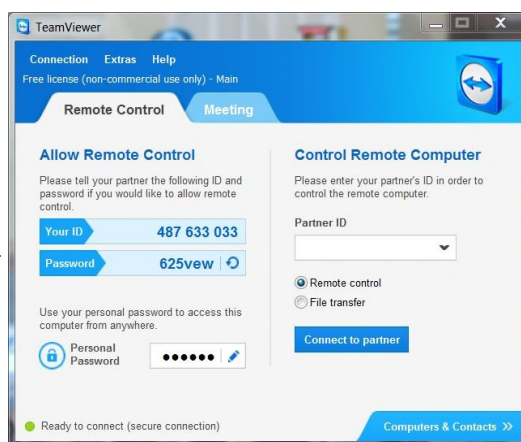
**W**E HOLD ELECTIONS FOR THREE POSITIONS on the DMA Board of Trustees at our Annual Meeting every September. The nominations are open from May through the end of August. Candidates must be 21 and regular or associate DMA members in good standing for at least twelve months prior to the September elections. No experience necessary! See Ed Skuya or *any* of the other Trustees at June's meeting.

*(Continued from page 7)*

when you are attempting to control this PC remotely. (The “Partner ID” would be used if you were going to attempt to control another PC from this PC. That might be the subject of another article.) The last item needed “Setup unattended access” wizard by clicking on the pencil icon in the Personal Password box, or you can just assign a password that you desire into the Personal Password box. I would suggest you use the wizard, at least the first time. **The Teamviewer icon** Once you have the Personal Password setup you are ready to allow remote control, or Unattended Access, as the wizard calls it.



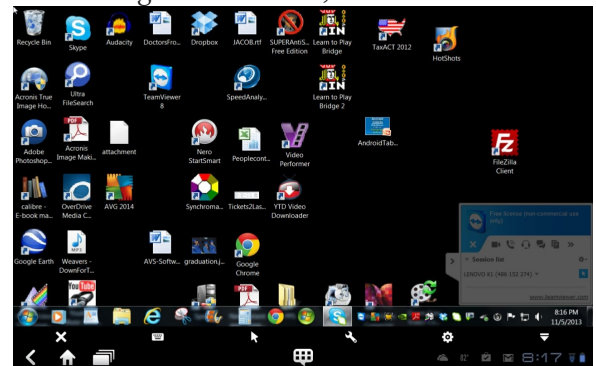
The last thing to do is set up the tablet for remote control, or “unattended access of the PC”. After the Teamviewer App is installed on the tablet, start will bring up the Teamviewer-ter the “Your ID” number and tap Remote Control. That was assigned to your PC connection with your PC and Teamviewer will make a con- window (if it doesn't, your display an Authentication your Fi network). Enter your screen. En- that was assigned to your PC password box and tap OK. Teamviewer will make a con- you will see a screen of display an Authentication mer for tablet control; just screen. En- that was assigned to your PC “Personal Password” into the “Don't show this dialog again” if you don't want to see this screen again.) After Touch interactions as a pri- you tap Continue, your PC desktop will appear on your tablet.



*(Continued on page 9)*



There is a box on the bottom right that indicates you are using Teamviewer; flick the box to the right so it will be out of your way. Now you can operate your computer just as if you were sitting in front of it. The only difference is that there is no keyboard, but you can use the tablet's virtual keyboard by tapping on the keyboard icon on the bottom toward the left, whenever it is needed.




Tablet showing the PC Desktop

Now to get to your data, just open the Windows Explorer, navigate to the drive, and open any of the folders and files that are now part of your 2TB cloud storage. Make sure you close everything and save any changes you made before leaving Teamviewer. To leave Teamviewer and close the connection, tap the big X on the bottom left, and then go back to your home screen.

Now, how is that for 2TB of cloud storage with no monthly storage charge?

*(I'd like to thank Dennis Russell, a student in my Android Tablets class, for making me aware of Teamviewer.)*

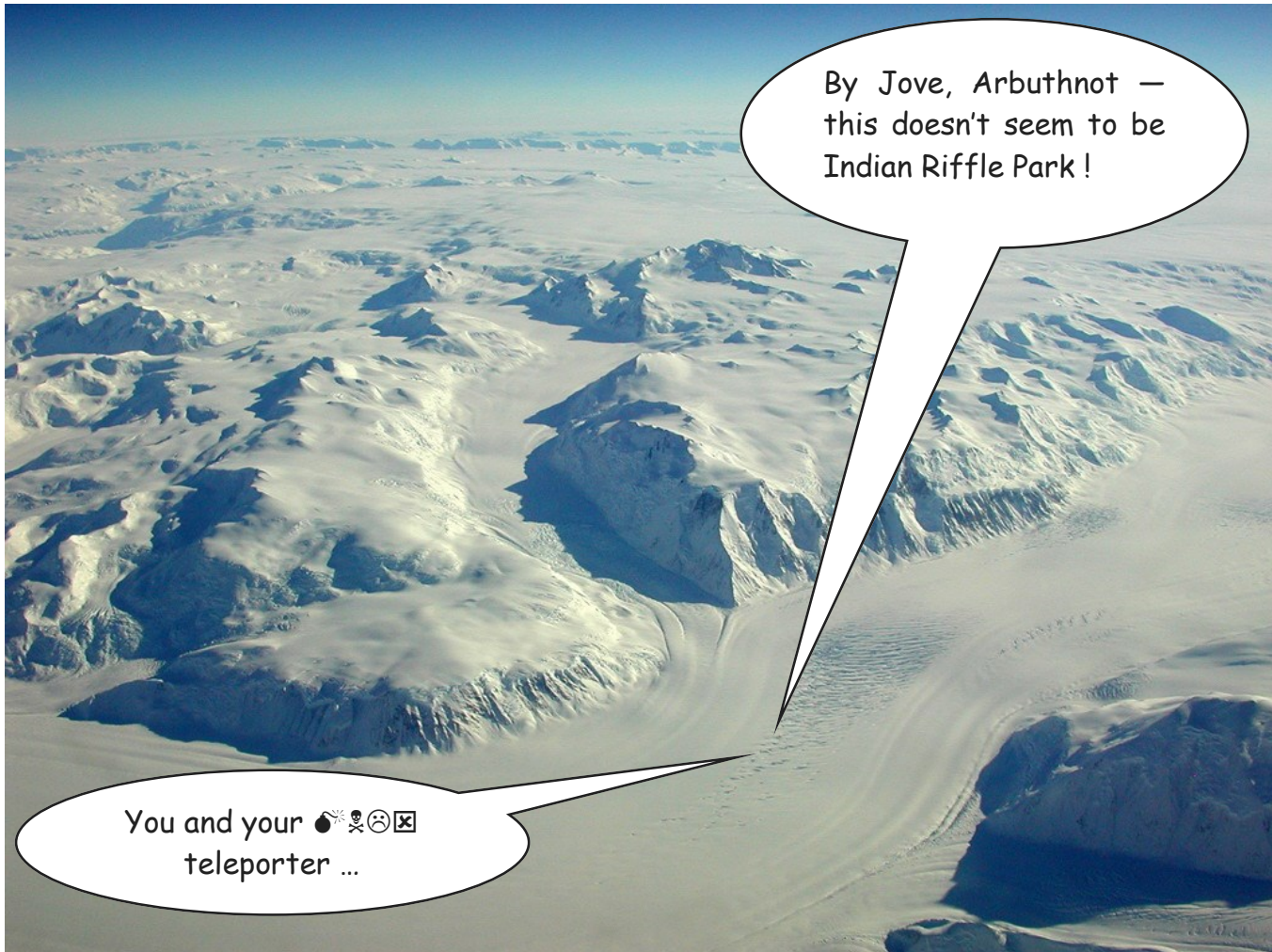
<b>Dayton Microcomputer Association</b> <b>Events for July 2014</b> For additions or corrections, contact <a href="#">Dave Lundy</a>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3 6:30pm <a href="#">Genealogy SIG</a>	4  Independence Day	5 3:00-5:00pm <a href="#">Classic Computers</a>
6	7 7:00pm <a href="#">DMA Board of Trustees</a> *Special Location*	8 7:00pm <a href="#">Investment SIG</a>	9 7:00pm <a href="#">Dayton Dynamic Languages Users Group</a>	10	11	12
13	14 7:00pm <a href="#">Dayton Diode Mtg.</a>	15 7:00pm <a href="#">Software Development SIG</a>	16	17 7:00pm <a href="#">Linux SIG</a>	18	19 3:00-5:00pm <a href="#">Classic Computers</a>
20	21 7:00pm <a href="#">Amateur Radio SIG</a> 7:00pm <a href="#">Apple-Dayton SIG</a>	22 <a href="#">Pi Approximation Day</a>	23	24	25 <a href="#">System Administrator Appreciation Day</a>	26 <a href="#">PyOhio 2014</a>
27 <a href="#">PyOhio 2014</a>	28	29 7:00pm <a href="#">DMA Main mtg.</a>	30	31		

Click anywhere on the DMA Calendar (above) to go to the original at



**DMA1.org.**





**DMA Picnic tickets go on sale this month! Shelter 3, Indian Riffle Park, Kettering ([click here](#) for a map), 23 August, Noon — ??, rain or shine. (Food served at 1 P.M.)**

- ✓ **\$5 ... cheap! See Martin ARBAGI or Gladys CAMPION. Cash, checks, or major credit cards accepted.**
- ✓ **DMA supplies burgers, brats, hot dogs, buns, condiments, soft drinks, and bottled water.**
- ✓ **Bring snacks (chips, salsa, etc.) or covered dishes (salads, desserts, etc.) to share. Please, no glass bottles or alcoholic beverages.**
- ✓ **Games (including geocaching) and door prizes!**
- ✓ **Electricity and power strip with surge suppressor will be available.**



Post Office Box 4005  
Dayton, Ohio 45401  
Telephone:  
(937) 222-4DMA  
(937) 222-4362

We have a new  
Web Site!

**DMA1.org**

ESTABLISHED IN 1976, DMA is a group of Dayton-area professionals and hobbyists in the field of computing and information technology. General membership meetings are usually on the last Tuesday of each month. DMA has a number of Special Interest Groups (SIGs) in areas ranging from digital photography and genealogy to the Linux operating system. Each SIG meets according to its own schedule. DMA is a member of Association of Personal Computer Users' Groups (APCUG) and the Affiliated Societies Council (ASC). Click on any of the logos — including our own — to go to that organization's Web Site.



## Your 2013/14

### Officers:

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Dave LUNDY

### Submissions ...

THE DATABUS welcomes compliments, complaints, suggestions, and especially articles. We can accept articles in ASCII, or as attachments in Microsoft Word or Works, Open Office Writer, Word Perfect, or, yes, even WordStar! No PDF files, please. Send e-mails to:

[Editor@DMA1.org](mailto:Editor@DMA1.org)

All articles are subject to editing for spelling, grammar, usage, and space. Always retain a copy of your work, as THE DATABUS cannot be responsible for loss. When articles are of roughly equal quality, those by paid-up DMA members usually receive preference.

All registered trademarks, for example: Android, DMA, Starbucks (!), or Teamviewer, are the property of their respective owners. However, for better readability, the Registered Trade Mark symbols (® or ™) have been omitted. The Editor occasionally inserts comments into articles. Such comments are always in square brackets [like these] and are preceded by the phrase: "EDITOR'S NOTE."

THE DATABUS is written and published by volunteers. We do not give professional advice on computer, network, or software installation, troubleshooting, or repair. If you need professional advice or other expert assistance, please seek the services of a competent professional.

**DMA Membership Application/Renewal**

PLEASE ALLOW UP TO THREE WEEKS FOR APPLICATION PROCESSING AND INTERNET SET-UP

Name: \_\_\_\_\_ Birth date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
mo. day yearAssociate Name: \_\_\_\_\_ Birth date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
mo. day year

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (Home) (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ (Work) (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ x \_\_\_\_\_

I wish to have my name and address published in the club roster: YES ☐ NO ☐

E-mail address: \_\_\_\_\_@\_\_\_\_\_

Name of DMA member who recruited me: \_\_\_\_\_ (only new regular memberships)

Are you a current or recent DMA Member? Yes q No q Change of Address only? q Today's date: \_\_\_\_/\_\_\_\_/\_\_\_\_

If you are renewing, please give your Membership Number (from your membership card) \_\_\_\_\_

**Type of Membership**Application is for: New Membership ☐ Membership Renewal ☐ Associate Membership\* ☐If applying for free student membership, please give school name and student ID number: Available only for students under 22 years old. (Student Members *cannot* vote in DMA elections.)

School Name: \_\_\_\_\_ Student ID#: \_\_\_\_\_

\* A family or associate membership is an additional membership for a member of your immediate family or someone else who is living in the member's household. If this is a family or associate membership, give name of regular member:

Dues/Fees (Dues and Fees are subject to change without prior notice):

Membership (one year — New or Renewal)

1.) ☐ \$25.00

Family or Associate Membership (must live at same address as regular member)

2.) ☐ \$12.50Free Student Membership for students under 22 yrs of age. (Student Members *cannot* vote in DMA elections.)3.) ☐ FREE

Please assign me a user ID for E-mail and Usenet news access one-time setup fee for new E-mail accounts.

4.) ☐ \$10.00

Total — Lines 1 and 2 (+ 4 if checked)

5) \$ \_\_\_\_\_

☐ Cash☐ Check

Check # \_\_\_\_\_

Make your check payable to Dayton Microcomputer Association, Inc. (DMA), and then send the check and application to:  
PO Box 340402

Beavercreek, OH 45434-0402

DMA Use only: Membership # \_\_\_\_\_

Exp. Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Processed by: \_\_\_\_\_

REV: 25 November 2013

Click [here](#) to pay your dues  
using PayPal. Simplified  
Membership Form, too!