This month... Solar Power !

— The DataBus —

Monthly Newsletter of

The Dayton Microcompter Association

—Contents—

SAVE A TREE (or at least a branch) ! If you prefer to print your DATABUS rather than read it directly from a monitor, don't print page 19 unless you need to renew your membership.

DMA

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Visit us at:
DMA1.org

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

Submissions ...

THE DATABUS welcomes compliments, complaints, suggestions, and especially articles. We can accept articles in ASCII, or as attachments in plain text, Microsoft Word, Open or Libre Office Writer, or, yes, even WordStar (a word-processing program that goes back to about 1980!). Send articles to:

Editor@DMA1.org

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

ALL REGISTERED TRADEMARKS, for example: the DMA Arrow, APCUG, Avast, Bit Defender, Linux, Meetup, Windows, or ZOOM, are the property of their respective owners. However, the Registered Trade Mark symbols (® or ™) have been omitted for better readability. The Editor occasionally inserts comments into articles. Such comments are sometimes preceded by the phrase: "EDITOR'S NOTE," are usually in square brackets [like these], and are always in sans-serif type, like these paragraphs.

THE DATABUS is written and published by volunteers. We do not give professional advice on hardware, software, or network installation, repair, security, or troubleshooting. If you need expert assistance for your digital device, please seek the advice or services of a qualified professional.

February Meeting: 7:00 P.M., *Tuesday, the 23rd*
No Driving—No Parking—No Charge*

* *See article below for details*. This is a "hybrid" meeting: via ZOOM, but also in person. Come at 6 P.M. if you wish to join us in person for dinner at T. J. Chump's Restaurant in Huber Heights. Click *here* for a map; see main article (next-to-last paragraph) for more information.

Jim HELTON:

RESIDENTIAL SOLAR POWER: TECHNOLOGY & FINANCES

**If you come in person, join us at 6:00 P.M.
The Main Meeting starts at 7 via ZOOM.**

THIS IS FEBRUARY, and everything outside is blanketed in white, with record-breaking cold temperatures. Doesn't it warm your heart to be thinking about *sunshine:* bright solar rays that could reduce our energy costs? The solar industry has been around for many years, the technology is continually evolving, the costs persistently dropping. This month's presentation will take a fresh look at what is available right now. **Jim** HELTON, an energy consultant and sales leader for Solgen Power in Cincinnati, will talk about the newest technology and the feasibility of home solar power.

His presentation will talk about how a solar system works, how cost effective it is for the homeowner, and the steps involved in the installation process. Battery backups *vs.* grid-tied systems will be covered as well as net metering. Many would also be interested to know that solar capability *increases* the value of your home.

In addition to his work with Solgen, Jim Helton is a co-founder of the Tri-State Freethinkers. He organized the March for Science in Cincinnati. He is an activist and environmentalist whose activities have landed him in several documentaries, including a cameo in the movie *Bill Nye: Science Guy*.

Please join us for dinner in person at **6:00 P.M.** in **T.J. Chump's Restaurant,** 7500 Executive Boulevard, in suburban Huber Heights, next door to the Meijer's Supermarket. Click or tap *here* for a map. Chump's is also accessible via RTA bus routes #18 and 19, though there is a short walk from Meijer's parking lot. For those using ZOOM, the main meeting begins at 7.   **... TDB**

Minutes are normally published almost two months late, because the Minutes for, say, the January Board meeting must be approved by the Trustees at the *following month's* meeting — in this case, early February. The corrected and approved January Minutes would thus appear in the February DATABUS (this issue), published toward the end of the month.

Trustees' meetings are on the *first Monday of each month,* except when that day is a legal holiday, for example, Labor Day in September. **In light of the ongoing epidemic, Trustees are holding their meetings using ZOOM.** They begin at the same time: 7:00 P.M. Request ZOOM credentials (that's a fancy way of saying "an invitation") from Vice-President PETER HESS or Secretary GLADY CAMPION at the January General Membership meeting.

MINUTES—DMA BOARD OF TRUSTEES

Meeting of Monday, January 4, 2021

CALL TO ORDER

The meeting was called to order at 7:03 P.M. by Peter Hess, via ZOOM.

Trustees present: Martin Arbagi, Glady Campion, Edwin Davidson, Pat Flynn, Peter Hess, Chester Howes, Ken Phelps, and Ed Skuya. **Absent:** None. **Guests:** Mark Camden, Gary Turner.

OFFICERS' REPORTS

President — Ken Phelps

No report

Vice President — Peter Hess

Last month, Peter asked trustees to find a DMA member to train or mentor , someone who could step in and handle our duties if it became necessary. He repeated the request and suggested that our newest trustees would be good candidates.

Peter joined an online Meetup organizers event. Anyone interested can find more information at https://www.meetup.com/meetup-live/

We are waiting for a quote on Directors & Officers (D&O) insurance for DMA

Secretary — Glady Campion

Glady presented Minutes for the previous board meeting. Martin Arbagi moved the minutes be accepted. Pat Flynn seconded and the motion passed with Glady abstaining.

Treasurer — Pat Flynn

Pat presented the Treasurer's report:

Credit cards arrived from WPCU for Pat, Peter, and Glady.

Account Balances:	
FifthThird Checking .	$ 2,500.85
FifthThird Savings ..	2,681.48
WPCU Share...........	20.93
WPCU Checking	2,175.52
WPCU Money Mrkt..	15,043.65
Pay Pal	150.65
TIAA CD..................	5,424.11
Dayton Foundation ..	+89,096.26
Total:......................	**$117,093.45**

(JANUARY MINUTES—Continued from page 4)

COMMITTEE REPORTS

Audit — Glady Campion

    In progress

Fundraising — Peter Hess

    In progress

Marketing — Edwin Davidson, Pat Flynn, Peter Hess, Debra McFall

    In progress

Membership — Glady Campion

    There was no meeting in December.

Net Admin Team — Ken Phelps, Gary Turner, Pat Flynn, Brent Kerlin, Mark Camden

    No operational issues to report.

Programs — Peter Hess

    January – Videos of CES 2021 presenter TBD

    Other suggested topics: Virtualization, Deep Fakes, Streaming video, Car hacking, Chromebooks, Bitcoin and Block chain, InitiativeQ.com, Data.ohio.gov, the Apple M1 chip, converting laptop to Chrome

Publications — Martin Arbagi

    There is no December issue of THE DATABUS. Martin is working on January.

UNFINISHED BUSINESS

Wright State Archives — Martin Arbagi, Glady Campion

    Still in progress

Next Board Meeting

    The next Board Meeting will be 7:00 P.M. on Monday, February 1, 2021 via ZOOM.

Guiding Principles — Peter Hess

    Peter met with Trustees on line to decide on five "Values" for the organization. There was an agreement on: diversity, inclusion, integrity, innovation, support. Mark Camden posted the list to dma1.org/about/

Ohio Statement of Continued Existence — Gary Turner

    Glady will renew our certificate of continued existence with the Ohio Secretary of State.

ADJOURNMENT

    Edwin Davidson moved to adjourn at 8:39 P.M. Martin Arbagi seconded and the motion passed.

Respectfully Submitted,

Glady Campion,

Secretary

(2020 SECURITY SOFTWARE AWARDSS—Continued from page 16)

stands out for its simplicity.

Trend Micro received one Advanced+ and two Advanced Awards in this year's tests. The user interface presents a simple overview, but also allows easy access to advanced options. Its persistent malware and status alerts stand out.

Vipre took four Advanced+ and two Advanced Awards in this year's tests. It has a very clean design and good online help feature, which you can search directly from the program.

Advice on Choosing Computer Security Software

There is no such thing as the *perfect* security program, or the best one for all needs and every user. Being recognized as "Product of the Year" does not mean that a program is the "best" in all cases and for everyone: it only means that its overall performance in our tests throughout the year was consistent and unbeaten. Before selecting a security product, please visit the vendor's Web site and evaluate its software by downloading a trial version. Our awards are based on test results only and do not consider other important factors (such as available interface languages, price, and support options), which you should evaluate for yourself. 						... TDB

—Review—

Windows Clipboard Secrets Revealed

By Bob WOODS, Webmaster, Under the Computer Hood User Group

September 2020 issue, *Drive Light*

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Webmasters (at) uchug.org

I AM SURE you have noted that while Microsoft eventually gets around to including free functionality accessories, the freebies often leave a bit to be desired. A shining example is the built-in clipboard. It's there to use, but until recently only gave you one shot and doesn't save anything between reboots. When having to do multiple copy/paste routines, many of us have turned to freeware or shareware to overcome the built-in clipboard limitations.

Several years ago, I purchased a license for the excellent clipboard extender Clipmate by Thornsoft (http://thornsoft.com/). Clipmate has many features including saved clipboard contents, editing of the clipboard contents, and the ability to create folders for different clipboard content. But it isn't free, costing $35.00. However, there are times where I just need to do a few quick copy/paste inserts. On those occasions I will not launch Clipmate, just use the Windows clipboard.

Somewhere along the line, Microsoft has given the built-in clipboard a history lesson. The clipboard can now hold 25 items. That includes text, images, and content from browser pages. But the history functionality is not turned on by default. You must opt to add this feature. To do that hold the Windows key and tap your v key (a Windows hotkey combination). A one-time pop up will open asking permission to turn on the clipboard history. From then on when you do a Windows key + v key, a clipboard pop-up window will open allowing you to select from contents in the clipboard. Each saved item will be in its own small window within the clipboard window. At the right of each window, the ellipsis (three dots […]) will allow you to delete a saved item, pin it which saves it even if you clear the clipboard or restart, or to clear all.

An article at https://techplugged.com/how-to-clear-clipboard-on-windows-10/ describes several ways of clearing the Windows clipboard.

I have found that just opening the clipboard pop up with Windows key + v key and selecting "clear all" to be the easiest for me. However, if you only occasionally use the clipboard, you might forget the hotkey shortcut. Setting up one of the methods from the Tech Plugged article might work better for you.

A further update to clipboard functionality is in testing to be released in a future Windows update as discussed in an Infopackets article at http://www.infopackets.com/news/10797/windows-10-cut-and-paste-get-overhaul .   **... TDB**
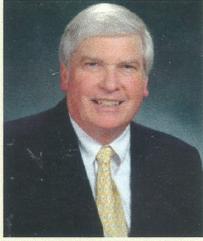
⬇ **Patronize Our Member–Advertisers!** ⬆
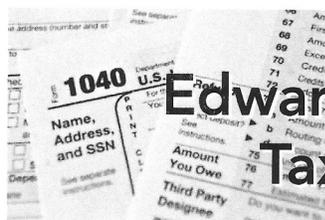
—UEFI Configuration for Booting Live Media—

By Dick MAYBACH, Brookdale Computer User Group

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> EDITOR'S NOTE: As has been our practice with articles that contain many illustrations, we put them in a special section at the end. Click or tap the underlined hyperlink, for example, FIGURE 2, to go to the appropriate illustration, then click or tap the "RETURN TO TEXT" link to go back to the article.

I N MODERN PCs the boot process is controlled by a **Unified Extended Firmware Interface** (UEFI), that has replaced the old Basic Input-Output System (BIOS), see https://en.wikipedia.org/wiki/Unified_Extensible_Firmware_Interface. Most users who purchase a machine with Windows installed can ignore the change, but if you wish to change its configuration you must be aware of its differences. In particular, if you wish to enable booting from a live USB device you will want to:

- require a password to access the PC,
- allow booting an alternate operating system from a live memory stick or DVD, and allow other operating systems than Windows.

The first challenge is to access the configuration utility, which requires tapping keys during the boot process. (You will have to be quick.) The details vary with the manufacturer, but some common ones are:

- ASUS PCs: <F2>,
- ASUS Motherboards: <F2> or <DEL>,
- Acer: <F2> or <DEL>,
- Dell: <F2> or <F12>,
- Gigabyte/Aorus: <F2> or <DEL>,
- HP: <F10>,
- Lenovo Laptops: <F2> or <Fn> + <F2>,
- Lenovo Desktops: <F1>,
- Lenovo ThinkPads: <ENTER> then <F1>.
- Samsung: <F2>, and
- Toshiba: <F2>.

Check your documentation for others. Windows 10 users can also reach their UEFI configuration through the Advanced Start Menu.

The storage area available to a BIOS was limited, which meant that configuring one was relatively simple, but this restriction was eliminated for a UEFI. As a result, manufacturers have added numerous "features" to differentiate their products from the competition. For example, I have two nearly identical Dell laptops, the older using a BIOS (with 5 setup screens) and the newer using a UEFI (with nearly 70!). The major problem with the latter is finding what is important to you.

(BIOS Configuration—Continued from page 9)

You can improve your PC's security by enabling passwords; however, these aren't effective against a knowledgeable attacker, as they can be disabled by opening the case and manipulating a switch or jumper. There are two passwords: "SYSTEM" allows the boot process to proceed; and "ADMINISTRATOR" allows changing the UEFI configuration. You should always enable an ADMINISTRATOR password to prevent potential hackers from enabling booting from your USB port, which would allow them to boot a live medium and access your disk. For a similar reason, if you've enabled USB booting yourself, prevent someone else from doing so by setting a SYSTEM password.

Most PCs require a keypress at the start of the boot process to enable booting from a USB port (assuming of course you've enabled it). Here are some common ones.

- Acer: <Esc> or <F9> or <F12>
- Asus: <Esc> or <F8>
- Dell: <F12>
- Fujitsu: <F12>
- Gigabyte: <F12>
- HP: <Esc> or <F9>
- Intel: <F10>
- Lenovo: <F12>
- Samsung: <Esc>
- Toshiba: <F12>

FIGURE 1 shows the opening UEFI configuration screen on my Dell laptop, which displays its table of contents. Note the Unlock button at the bottom. Select this and enter your administrative password, assuming you've set one, to make changes. Check your documentation for others.

To enable booting from a USB device you will make these changes:

- Disable secure boot.
- Set the boot sequence.
- Enable booting from legacy ROMs.
- Enable USB boot support.
- Disable fast boot.

Record its current settings before you change anything on a screen (taking a cell-phone photo is a convenient way to do this). Some settings will result in your PC's being unable to boot (ask me how I know), but this isn't a problem if you can undo your last change. If all else fails, most UEFIs have a way to restore the factory settings. On my Dell, it's on the screen of FIGURE 1 as the (grayed out) button at the right of Unlock. It is enabled by unlocking the UEFI configuration.

Secure boot prevents booting from any operating system that doesn't have a Microsoft certificate, which few OSes other than Windows have. You must disable this if you want to run Linux, but it is a security feature, and you may wish to enable it again when you go back to Windows. FIGURE 2 shows the appropriate screen on my Dell, which follows the security section.

(BIOS CONFIGURATION—Continued from page 10)

Now set the boot sequence to include USB devices, FIGURE 3.

Following the advice on Figure 3, enable legacy option ROMs, FIGURE 4.

Also enable USB boot support, FIGURE 5.

Finally, disable fast boot support, FIGURE 6, as this is compatible only with recent versions of Windows.

Although I've used Dell as an example, the UEFI configuration on your PC is probably similar. Explore carefully, read the help text, and be sure you can undo your changes. Even if you don't make changes, exploring your UEFI configuration will tell you much about your PC.   **... TDB**

Figure 1. UEFI First Configuration Screen.

"Reset to Factory Defaults" button. (Grayed out)

Go BACK to main text.

Figure 2. Secure Boot Screen.
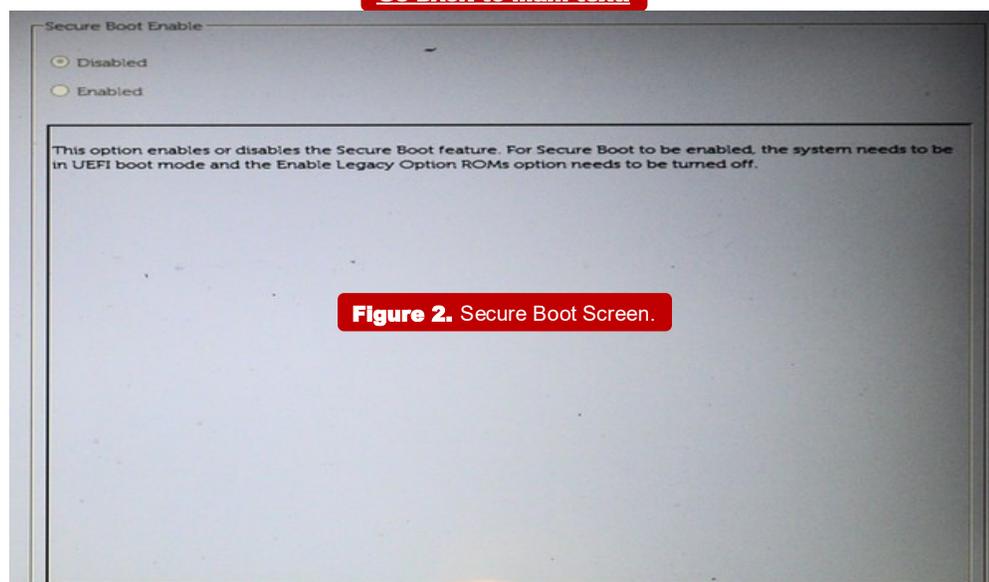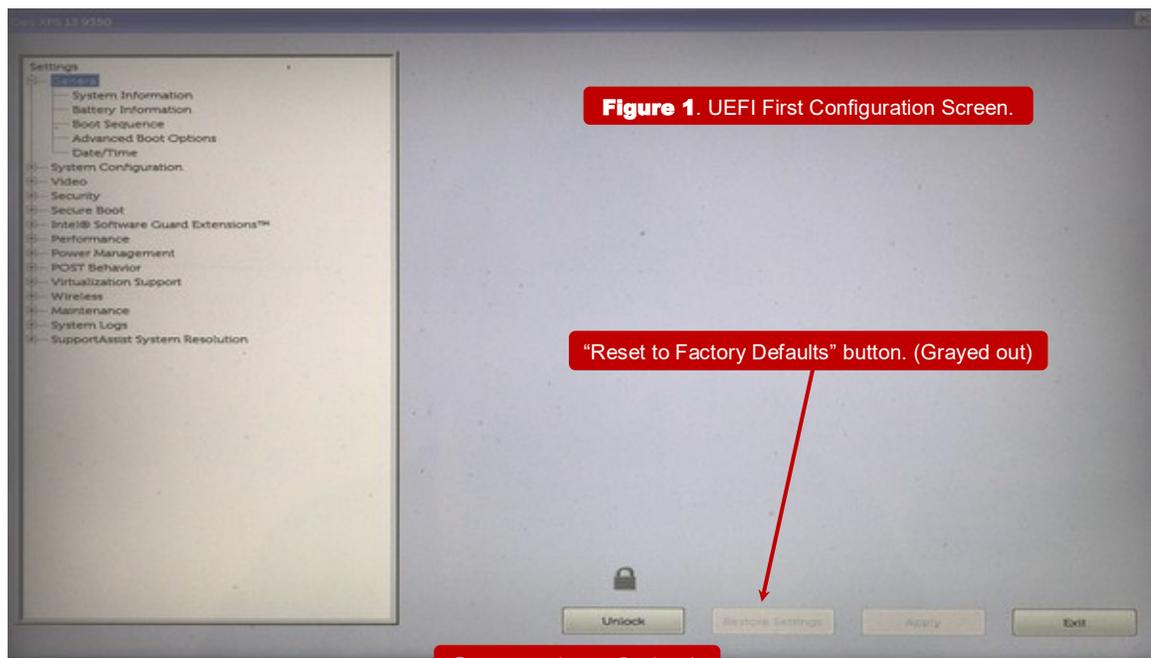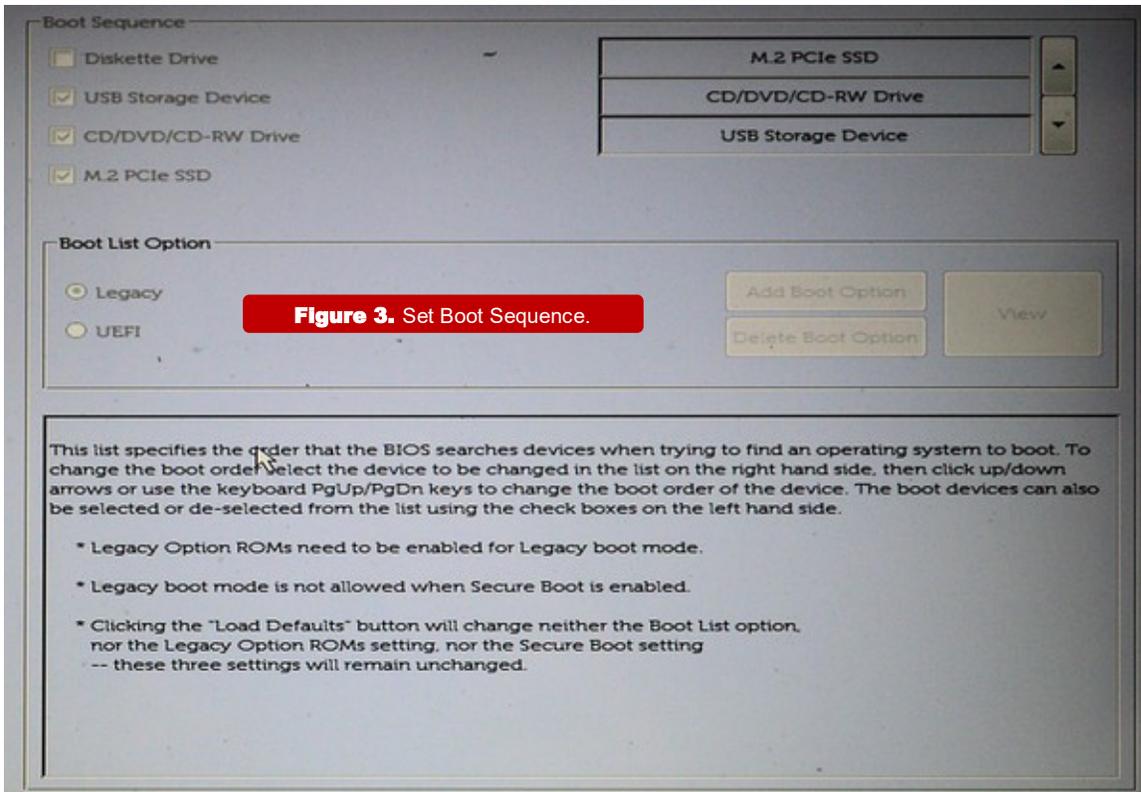
Figure 3. Set Boot Sequence.

This list specifies the order that the BIOS searches devices when trying to find an operating system to boot. To change the boot order, select the device to be changed in the list on the right hand side, then click up/down arrows or use the keyboard PgUp/PgDn keys to change the boot order of the device. The boot devices can also be selected or de-selected from the list using the check boxes on the left hand side.

* Legacy Option ROMs need to be enabled for Legacy boot mode.

* Legacy boot mode is not allowed when Secure Boot is enabled.

* Clicking the "Load Defaults" button will change neither the Boot List option, nor the Legacy Option ROMs setting, nor the Secure Boot setting -- these three settings will remain unchanged.

This option enables or disables the Secure Boot feature. For Secure Boot to be enabled, the system needs to be in UEFI boot mode and the Enable Legacy Option ROMs option needs to be turned off.

Figure 4. Enabling Legacy [Obsolete] ROMs .
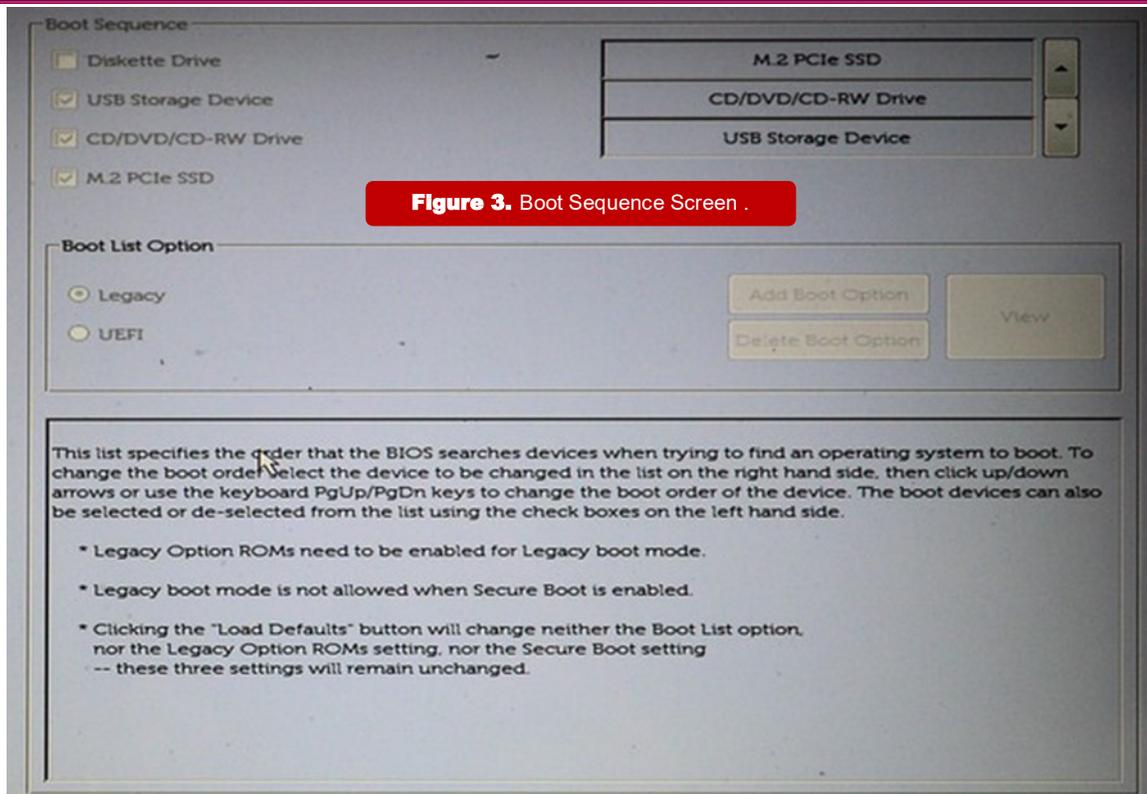
Figure 3. Boot Sequence Screen .
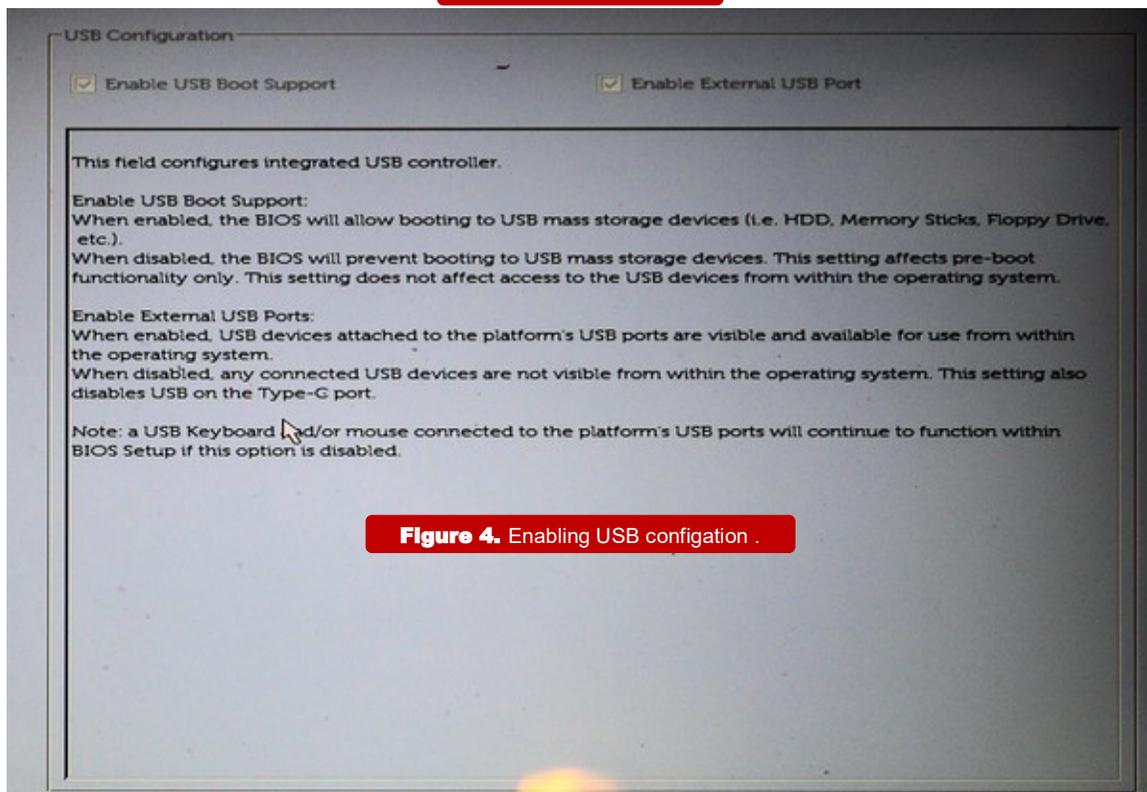
Figure 4. Enabling USB configation .
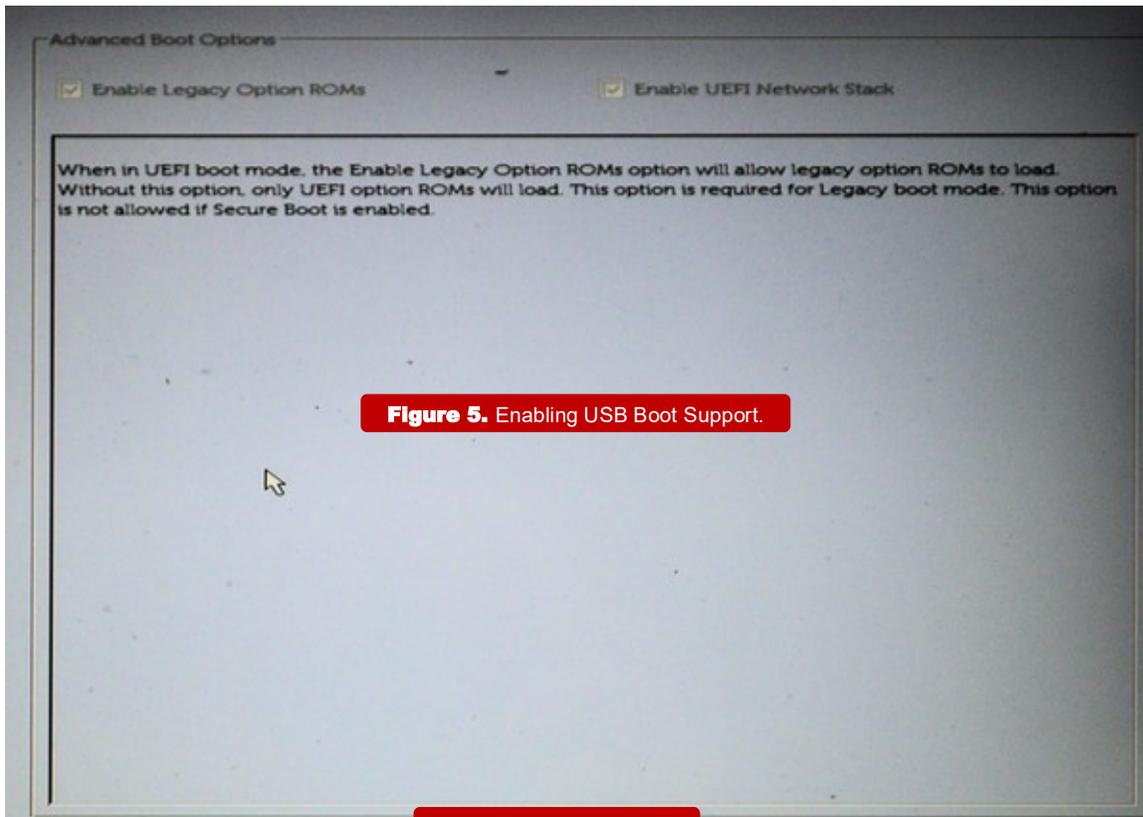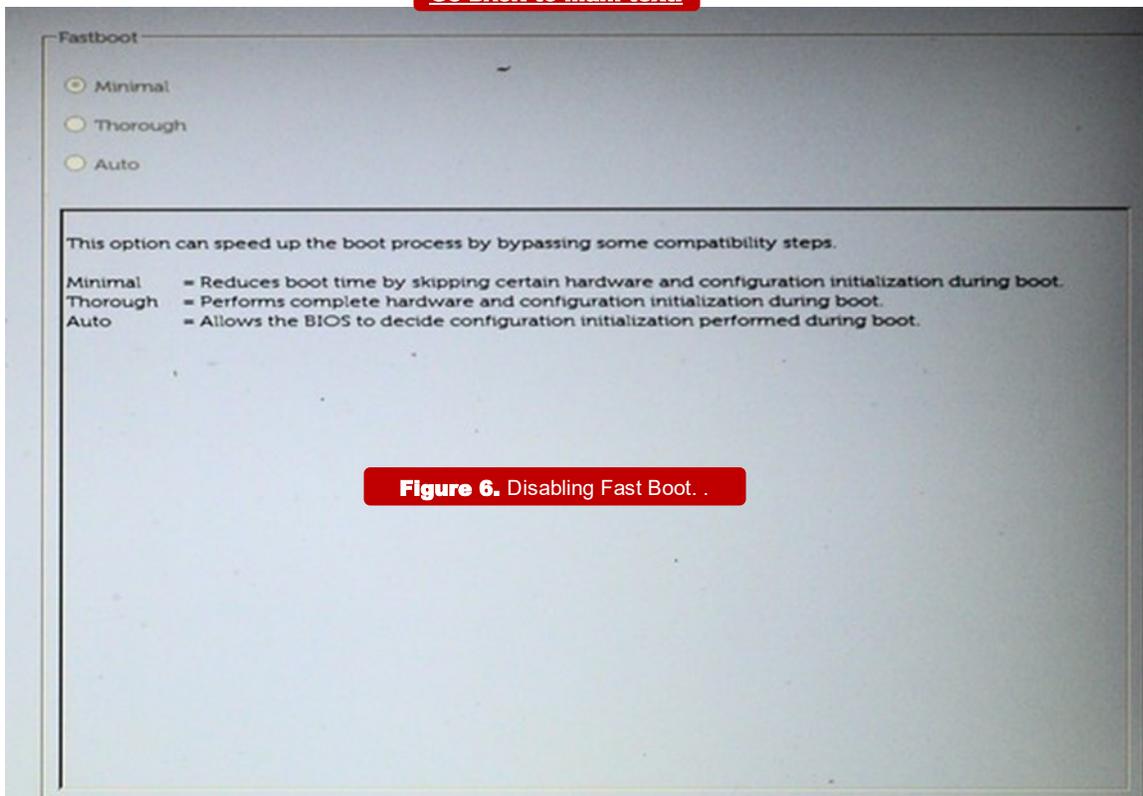
Advanced Boot Options

☑ Enable Legacy Option ROMs   ☑ Enable UEFI Network Stack

When in UEFI boot mode, the Enable Legacy Option ROMs option will allow legacy option ROMs to load. Without this option, only UEFI option ROMs will load. This option is required for Legacy boot mode. This option is not allowed if Secure Boot is enabled.

Figure 5. Enabling USB Boot Support.

Fastboot

◉ Minimal

○ Thorough

○ Auto

This option can speed up the boot process by bypassing some compatibility steps.

Minimal   = Reduces boot time by skipping certain hardware and configuration initialization during boot.
Thorough   = Performs complete hardware and configuration initialization during boot.
Auto   = Allows the BIOS to decide configuration initialization performed during boot.

Figure 6. Disabling Fast Boot. .

New Feature!

—Tests of Digital Security Products—

In 2020, AV-COMPARATIVES subjected seventeen consumer security products for Windows to rigorous investigation. All the programs were tested for their ability to protect against real-world Internet threats, identify thousands of recent malicious programs, defend against advanced targeted attacks, and provide protection without slowing down the PC.

Results and Awards

Whilst [Editor's Note: Translation (from German) is into _British_ (not American) English] all of the programs in our test reached an acceptable level overall, some programs outperformed others. For details, please see "Overview of levels reached during 2020". In order to recognise those products that achieve outstanding scores in our tests, we have given a number of end-of-year awards that highlight the best results in each test, and overall. The Product of the Year and Top Rated awards are based on overall performance in the Public Consumer Main Test Series; there are also Gold, Silver and Bronze awards for each individual test type. Please see the Award Winners section for more details of the awards. The 2020 Product of the Year Award goes to Kaspersky; Bitdefender and ESET receive Outstanding Product Awards; the Top Rated Product Awards go to Avast and AVG.

Overview of tested products

Here we provide a summary for each of the programs tested, with a note of each one's successes during the year. Although the user interface does not affect any awards, we have noted some of the best user interface (UI) features as well.

Avast is a Top-Rated Product in 2020. It received an Advanced+ Award in four of this year's tests, and Advanced in the other three. It also takes a joint Silver Award for Real-World Protection and a joint Bronze Award for Advanced Threat Protection. It has a very clean, modern interface, and the setup wizard offers ideal options for both expert and non-expert users.

AVG receives a Top-Rated Product award this year. In four of this year's tests it took an Advanced+ Award, along with Advanced in the other three. It also received a joint Silver

Award for Real-World Protection, and a joint Bronze Award for Advanced Threat Protection. It has a touch-friendly interface and good setup options.

Avira took three Advanced+ and three Advanced Awards in this year's tests. It features a modern, touch-friendly interface.

Bitdefender wins an Outstanding Product Award, having reached Advanced+ in all seven tests in 2020. It additionally receives joint Silver Awards for Malware Protection and Advanced Threat Protection, and the Bronze Award for False Positives. Its well-designed user interface includes a customisable home page, and real-time protection is highly sensitive.

ESET gets an Outstanding Product Award for 2020, as it reached Advanced+ level in all seven tests this year. It also receives the Gold Award for False Positives, and joint Silver Awards for Malware Protection and Advanced Threat Protection. Reviewers were impressed with the clear and simple layout of the GUI, and ease of use.

F-Secure took three Advanced+ and three Advanced Awards this year. It features an easy-to-use, simply laid-out interface.

G Data takes this year's Gold Award for Malware Protection. It also received 4 Advanced+ and 1 Advanced Award in the 2020 tests. Reviewers noted its especially detailed status display and excellent access control.

K7 takes this year's Gold Award for Performance. It also got two Advanced+ and three Advanced Awards in the 2020 tests. Reviewers liked its simple design and impressive scanning speed.

Kaspersky is AV-Comparatives' Product of the Year for 2020, having got Advanced+ Awards in all seven of the year's tests. In addition, it receives Gold Awards for Real-World Protection and Advanced Threat Protection, the Silver Award for False Positives, and Bronze Awards for Malware Protection and Performance. It has an easy-to-use tiled interface, and a wide range of configuration options.

McAfee received three Advanced+ and two Advanced Awards in the year's tests, along with a Silver Award for Performance. Its user interface is clean, modern and touch friendly. The program's status alerts are exemplary.

Microsoft took the Bronze Award for Real-World Protection this year. It also received two Advanced+ Awards and one Advanced Award in the year's tests. The product is integrated into Windows 10, and has a simple, unobtrusive interface.

NortonLifeLock's product took six Advanced Awards in this year's tests. It has a well-designed overall user experience, with detailed malware information accessible from alerts.

Panda received two Advanced+ and three Advanced Awards in this year's tests. Reviewers noted its security-blog feature, which lets you read articles on various IT-security related topics.

Total AV got one Advanced+ and four Advanced Awards in the 2020 tests. It features a very simple, easy-to-navigate program window.

Total Defense took one Advanced+ and four Advanced Awards this year. Its user interface

DMA Events for Feb 14 – Mar 20, 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb 14 *Valentine's Day* TECHFEST	Feb 15 *President's Day*	Feb 16	Feb 17	Feb 18 **Linux SIG** 7:00pm Online	Feb 19 **Python Self-Study** Noon, Online	Feb 20
Feb 21	Feb 22	Feb 23 **MAIN MEETING** 7:00pm Online -AND- TJ Chumps 7050 Executive Blvd Huber Heights	Feb 24	Feb 25	Feb 26 **Python Self-Study** Noon, Online	Feb 27
Feb 28	Mar 1 **DMA Trustees** 7:00pm Online	Feb 2	Mar 3	Mar 4 **Genealogy SIG** CANCELLED	Mar 5 **Python Self-Study** Noon, Online	Mar 6 **Classic Computers** 3:00pm By phone
Mar 7	Mar 8	Mar 9 **Investment SIG** 7:00pm Online	Mar 10 **Dayton Dynamic Languages** 7:00pm Online	Mar 11	Mar 12 **Python Self-Study** Noon, Online	Mar 13
Mar 14 *Pi Day*	Mar 15 **Apple Dayton SIG** CANCELLED	Mar 16	Mar 17 *St Patrick's Day*	Mar 18 **Linux SIG** 7:00pm Online	Mar 19 **Python Self-Study** Noon, Online	Mar 20 *Spring Begins* **Classic Computers** 3:00pm By phone

For current status of meetings, go to
https://www.meetup.com/Dayton-Microcomputer-Association-Meetup/events/calendar/

For an invitation to the Investment SIG meeting, e-mail:

Martin.Arbagi@Gmail.com

About The Dayton Microcomputer Association, Inc. (DMA)

By Peter HESS, DMA President, 2018-2020

MORE THAN FORTY-FOUR YEARS AGO, a small group of computer enthusiasts from the Dayton, Ohio area gathered around a kitchen table looking at, and playing with, an early personal computer called the Altair 680 that one of them had purchased. This computer had been featured earlier on the cover of the January 1975 issue of *Popular Electronics* magazine. Paul Allen had shown the selfsame article about the Altair to Bill Gates, and later, they wrote software together for that computer. Still later — and still together — Allen and Gates founded the Microsoft Corporation.

Shortly thereafter, those Dayton-area computer enthusiasts joined together with many others to form THE DAYTON MICROCOMPUTER ASSOCIATION (DMA), now one of the oldest (if not *the* oldest) continuously-operating computer user groups in the world. Typically, computer user groups, and the newer iteration, technology user groups, are volunteer-run operations. The DMA is an all-volunteer led, organized, and run 501(c)(3) non-profit organization.

Now, there are hundreds of computer (or technology) user groups in the world, all of which continue to foster improved communication between technological equipment and software publishers, and users of their products. User groups (both computer and technology) provide an environment where more experienced technology users introduce additional and advanced techniques to novices.

DMA offers both monthly General Membership Meetings, which cover new and innovative topics including a wide range of generic, technological topics, and its Special Interest Groups (SIGs) which address concerns about specific technology interests. There are eight different SIGs sponsored by the DMA, covering such topics as the Linux operating system, various programming languages such as Python, the use of technology to investigate genealogy, and digital aids to investing. Neither SIG members nor attendees at DMA General Meetings need be members of the parent organization, though they are encouraged to join so DMA can continue providing its services to the public.

Annual dues for DMA membership, which have not been raised for decades, are $25 for Regular Members, and $12.50 for Family/Associate Members (someone living at living at the same address as a Regular Member). Nonvoting Student Memberships are *free* to students through age 22. Door prizes at General Meetings, picnics, banquets, and other DMA events, and both product and service discounts are available to all DMA members.   **... TDB**

Dayton Microcomputer Association Membership Form

Today's date _____/_____/_____

☐ *NEW*   Please credit the DMA member who recruited me: _____

☐ *RENEW*   Contact information below is new ☐ Y ☐ N

TYPE OF MEMBERSHIP

☐ *REGULAR*

Name _____   Home / Work (_____) _____-_____

Email _____   Mobile Phone (_____) _____-_____

☐ *ASSOCIATE*   Family Associate membership is for a family member living at the same address as a
Regular member. Name of Regular member: _____

Name _____   Home / Work (_____) _____-_____

Email _____   Mobile Phone (_____) _____-_____

☐ *STUDENT*   Free Student membership is available to those under 22 years of age, enrolled full-time in a
program of higher education. Name of School: _____

Name _____   Home / Work (_____) _____-_____

Email _____   Mobile Phone (_____) _____-_____

Home Address _____

City _____   State _____ Zip _____

INTERCHANGE

Skills & interests you might share with DMA _____

What you hope DMA will provide _____

☐ *SHELL ACCOUNT*   A shell account on the DMA web server provides file storage, hosting of a personal
non-commercial website, @dma1.org email alias (forwarding address), all for a one-time fee of $10. A username
must be 8 alpha characters. The usual default is last name and first initial, no caps or punctuation. DMA reserves
the right of final decision on all usernames: 1st choice _____ 2nd choice _____

DUES AND FEES

Regular membership	$25.00 x ☐ 1yr ☐ 2yr ☐ 3yr	$_____
Family Associate membership	$12.50 x ☐ 1yr ☐ 2yr ☐ 3yr	$_____
Student membership	FREE	$____0.00
One-time setup fee for Shell account	$10.00	$_____
Total		$_____

Note: $10.00 fee will be charged for any returned checks

Make your check payable to: Dayton Microcomputer Association, Inc
Mail check and application to: PO Box 4005
                                         Dayton OH 45401-4005

Or use Paypal to send your payment to: membership@dma1.org

DMA use only

Member#_____ Exp ____/_____ [ ] Cash [ ] Check#_____ [ ] Paypal Proc by _____

Member#_____ Exp ____/_____ [ ] Cash [ ] Check#_____ [ ] Paypal Proc by _____

Member#_____ Exp ____/_____ [ ] Cash [ ] Check#_____ [ ] Paypal Proc by _____

Revised February 25, 2020