

Windows 10 Hardware and Software

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First a Little Philosophy

- One of my favorite isms:
- Do or Do Not. There is no Try – Yoda.
- “I’m going to try to quit smoking.”
- “I’m going to try to quit drinking.”
- “I’m going to try to work out more.”
- “I’m going to try to lose weight.”
- “I’m going to try to use my computer till it dies.”

Today's Hardware

- Notebook – 14”, 15”, 17”
- Smaller notebook – 13.3”, 13”, 12”
- Ultralight, 10”, 9”
- Desktop
- Desktop, really small, 4.5 x 8.5 x 1 inches.
- Using Multiple screens! Works with all!
- Get 1080 HD screens, watch movies!

More Hardware

- Don't even look at minimum requirements.
- You're running a multitasking machine
- You need lots of power and less heat
- Older systems give less power and more heat, like a certain brand 10 plus years ago that would burn your legs if set on your lap and suddenly shut down, overheating.

Who is Intel?

Are they important?

Intel makes chips in Windows computers, along with AMD.

They confer with Microsoft and the software and hardware features complement each other.

They are designed for each other!

More on Intel and Chips

- And that means what? It means you can very often mix and match generations.
- Maybe one, not likely two, three leads to failure.
- For example, some companies offered Windows 7 on new chips, 6 and 7 series.
- Potential failure! Only time will tell.

How does this affect us?

Windows 7

Windows 8

Windows 8.1

Windows 10

And what is the future?

Windows 10 forever says Microsoft!

Expiring Support!

If support expires, you don't get updates. Some say great.

This is really bad, as bad software code, breaches won't get fixed and you'll be at risk.

How can you tell when support stops? It's online.

Windows XP – April, 2014.

Windows Vista – April, 2017

Windows 7 – January, 2020, but with caveats. If you run Win 7 on newer chips, i6 or i7 series, Intel said six more months and then backed off and said full scheduled time

More on Support

Go to Intel.com or Microsoft.com for more information on these issues, as they change from time to time and can get complicated.

One high note: MS has said publicly that they will support Win 10 forever, no new system names, just support.

What this means is who knows?

They will add features and require that you update with service packs or else!

CAT systems are faced with similar problems with Win 10.

How do you know what to buy in a new notebook?

- You need to balance speed with cost
- What controls speed?
- CPU chip, RAM size and speed, hard drive speed i.e. type, graphics.
- The faster, the more well equipped, the higher the purchase price will be.
- What can you afford and how to analyze your purchase?

New Computer Costs

- Take a three-year life, 156 weeks, five-day week, 780 days, \$1 per day, \$780.
- \$2 per day, \$1,560.
- \$1 per day, 1,095 days, 3 years, \$1,095.
- So throw a buck or two in the computer replacement jar every day and it's easy.
- Update when not in a crisis!
- Now what do you get or should you plan on for the next purchase?

I7, RAM, SSD

- i7 chips are faster than i5's and i5's are faster than i3's and if it's anything else, it's way toooooo slow. <G>
- Broadwell, i7 chip, 5 Series, launched mid-year 2014.
- Skylake, i7 chip, 6 Series, launched August, 2015.
- Kaby Lake i7 chip, 7 Series, Q1, 2017.

Now RAM and SSD's

RAM, you can get by with 8 gigabytes

You'll be happier with 16 gigabytes

You'll be real happy with 32 gigabytes

SSD, just get one big enough.

Oh, and what is an SSD?

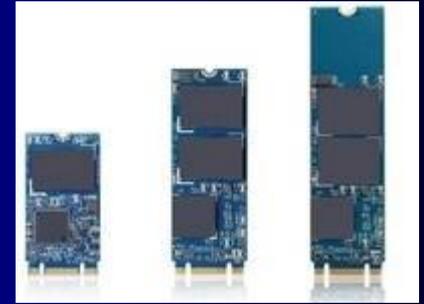
Solid state drive, no moving parts, no head crashes, no lost data. Best of all worlds.

M.2 it's really fast! Google SSD and M.2.

Solid State Drive

- SSD's have no moving mechanical components. This distinguishes them from traditional electromechanical magnetic disks such as hard disk drives (HDDs) or floppy disks, which contain spinning disks and movable read/write heads. 5400 or 7200 are NOT SSD's!
- Faster, less heat, no heads to crash.

M.2



- M.2's are quite small, 80 mm, 60mm and 42mm. 60mm is 2.3622 inches long.
- They are like a stick of gum, half a stick and then a third of a stick.
- Typical capacity waypoints are 120GB or 128GB; 240GB, 250GB, or 256GB; and 480GB, 500GB, or 512GB and bigger.

WARNING

- Never, Never, never scandisk an SSD drive.
- Do not index an SSD. What do I mean by that?
- SSD's aren't anywhere near as small and fragile as they used to be. You don't need to worry about wear and go out of your way to "optimize" them. Windows 7, 8, and 10 automatically do the work for you, sort of.

For the Techies!

- If you have a name brand SSD, you can download specific software to monitor your SSD.
- It allows you to check drive size, available space and many other features of your drive, i.e. speed.
- For example, Samsung Magician, Western Digital SSD Dashboard, et al.

What About Screens?

- How many use one screen to edit?
- How many use two screens to edit?
- How many use three screens to edit?
- Buzz words to look for when screen shopping: 1080, HD. (So you can watch HD TV.)
- Important: Know about connections on your computer, DVI or HDMI or mini-DVI or USB-C...the universal connector.

Prices, Brands, Where?

Again, online and Google.

Amazon, Dell, Microsoft, HP, Lenovo and many others.

Know what you are looking for, don't just shop price.

IMPORTANT: Buying the best you can with current technology means your new computer will be able to last longer before replacement.

Getting OS on Hardware

Yes, buy it with Windows 10 and even better Windows 10 Pro, please.

Win 10 Pro is more stable, in my opinion. I use both. Better control of all, networking in particular.

DO NOT downgrade to Windows 7 on new hardware, Series 6 or Series 7 chips.

Ok, you've got your new computer. Now what?

Windows 10 New OS

Many things are the same as Win 7, some are different. Win 8 and 8.1 is an easy transition, uses tiles, etc.

The opening screen, do you want to password protect your computer? Some do, some don't. Depends on where you use it and who might have access to your data.

I don't password protect my RT computer but it doesn't have any really vital info on it.

Or you can use a pin number.

Stop Unwanted Updates!

- If you're running Windows 10 Home, there is no supported way to delay the installation of updates. When a feature update is available, it will install in the next window outside Active Hours.
- You can try various workarounds, such as shutting off the Windows Update service or setting your network connection as metered, but these only briefly postpone the inevitable.

Stopping Updates!

- Open Win 10 Settings, Windows key I
- Click Network & Internet
- Click WiFi upper left-hand pane
- Scroll down to Metered connection
- Set as metered connection: ON
- This is only for metered networks. They do download on non-metered connections

More Stopping Updates!

- Windows key I, settings
- Update & Security
- Change active hours
- Back up, Restart options
- Back up, Advanced options
- Anything else on the Update and Security screen that you find interesting! <GGGG>

More stopping updates!

- Settings, advanced options, you can defer updates for a period of time. Sooner or later you will get them installed regardless!
- Security updates will download and install and you can't stop that from happening.

A Big Question: Browsers

- **No. 1 Chrome, “Powerful and adaptable browser. If your PC has the resources, Chrome is 2017's best browser. Supports lots of plugins.”**
- **My preferred choice.**
- **I run 16 gigabytes, Diane runs 32 gigs.**
- **If you're on 4 gigs, hmmm. You'll need to test these out for your system.**

More Browsers

- **No. 2 “An underrated browser, Opera's killer feature is a superb Turbo mode for slow connections.” I haven't tried this one. It's said to be a killer app on slow, dial-up connections or slow rural connections.**
- **Are there many of those today!**
- **Developed in Norway 1995, sold '16 to Chinese investors, small user base, 1%.**

More Browsers

- No. 3 “Edge - Microsoft's new, user-friendly browser - offers full integration with Windows 10.” But be careful: This uses Bing by default. If you switch to Google as the search engine, MS will switch it back to Bing on every update.
- Isn't that special? <GGG>
- People tell me it's hard to use! I don't use it.

More Browsers

- **No. 4 Mozilla Firefox, “A divisive choice these days - Firefox is very flexible, but can feel sluggish with lots of plugins installed.”**
- **This is not my experience. Fast and friendly but I did not have a lot of plugins installed, either. Try it, you might like it. You can always switch back to Chrome.**

More Browsers

- **No. 5 “MS Internet Explorer is fast and efficient, but less expandable than Firefox and Chrome.”**
- **I didn’t find it fast compared to the others, not at all. It’s the last in the list for many reasons. Lacking many security plug-ins, IMHO.**

Now Windows 10

- I'm going to close PowerPoint and reboot to Windows 10.
- I will show you the shortcuts on the handouts, how to use some of them and why you want to.
- Meantime, any quick questions?