Sun City Computer Club

Windows SIG

July 13, 2021

Questions, Comments, Suggestions welcomed at any time

Even Now

- Audio Recording of this session
- Use the link above to access MP4 audio recording
- Audio Recording in Progress
- SIG attendees are required to be members of the chartered club sponsoring that SIG.
 Sun City Community Association By-law
- Sig leader anyone?
- Topic Suggestions plea(se)
- Your suggestions future presentations
- Cyber OK?
- In person meetings

- 117 Vulnerabilities
- 6 Publicly Disclosed
- 13 Critical
- 4 Exploited
- Average CVSS 8.03
- Maximum CVSS 9.9
- KB5004237
- Windows Malicious Software Removal Tool KB890830

Microsoft Patch Tuesday Schedule B

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343,929.0)

Successfully installed on 7/13/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.922.0)

Successfully installed on 7/13/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343,859.0)

Successfully installed on 7/12/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.835.0)

Successfully installed on 7/12/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.798.0)

Successfully installed on 7/11/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.755.0)

Successfully installed on 7/10/2021

Security Intelligence Update for Microsoft Defender Antivirus – KB2267602 (Version 1,343,729.0)

Successfully installed on 7/10/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.686.0)

Successfully installed on 7/9/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.618.0)

Successfully installed on 7/8/2021

Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.343.557.0)

Successfully installed on 7/7/2021

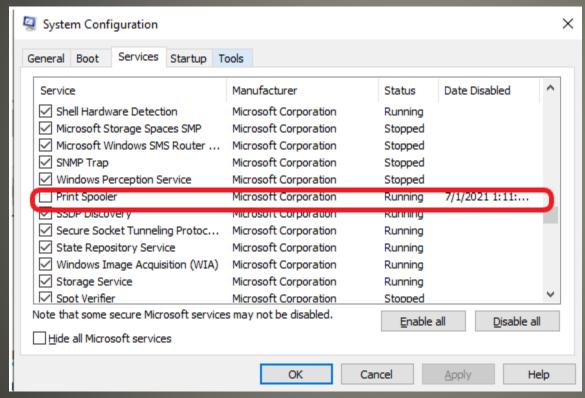
Security Intelligence Updates Microsoft Defender

- Microsoft Print Spooler vulnerabilitie(s)
- Elevation of Privilege (EoP)
- ALL versions of Windows
- Remember Administrator caution ?
- PoC published after a patch
- Bug elevated Remote Code Execution (RCE)

Print Nightmare



- Disable / Stop print Spooler service
- Run > msconfig



PrintNightmare



CMD Run as Administrator

C:\Users\duck>sc config Spooler start= disabled

```
C:\Users\duck>>sc query Spooler

SERVICE_NAME: Spooler

TYPE : 110 WIN32_OWN_PROCESS (interactive)

STATE : 1 STOPPED

WIN32_EXIT_CODE : 1077 (0x435)

SERVICE_EXIT_CODE : 0 (0x0)

CHECKPOINT : 0x0

WAIT_HINT : 0x0
```

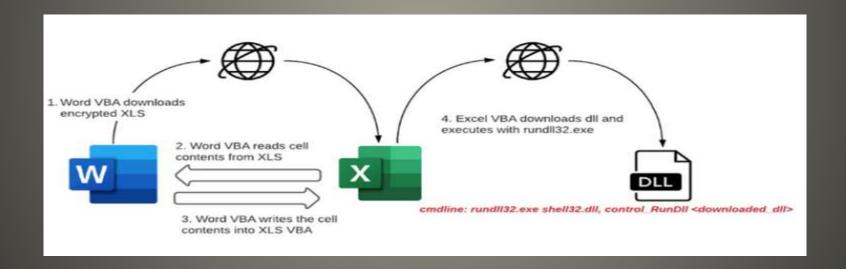
PrintNightmare



Microsoft Translator
 Universal cross site scripting
 3-June first report
 24-June patch
 \$20,000 reward

Edge vulnerability

- Re-check after any office updates
- Set for office subscription, WEB Office,
 Office 265
- Similar for Office replacements LibreOffice



File -> Options



Display

Proofing

Save

Language

Ease of Access

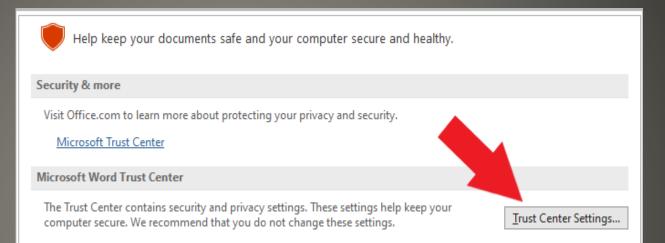
Advanced

Customize Ribbon

Quick Access Toolbar

Add-ins

Trust Center

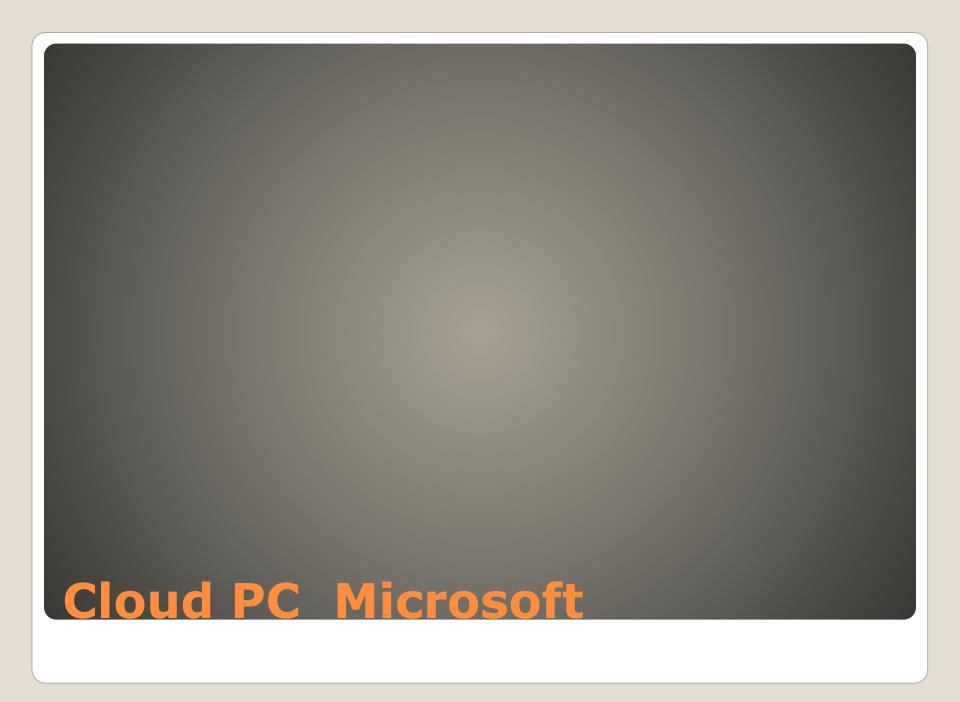


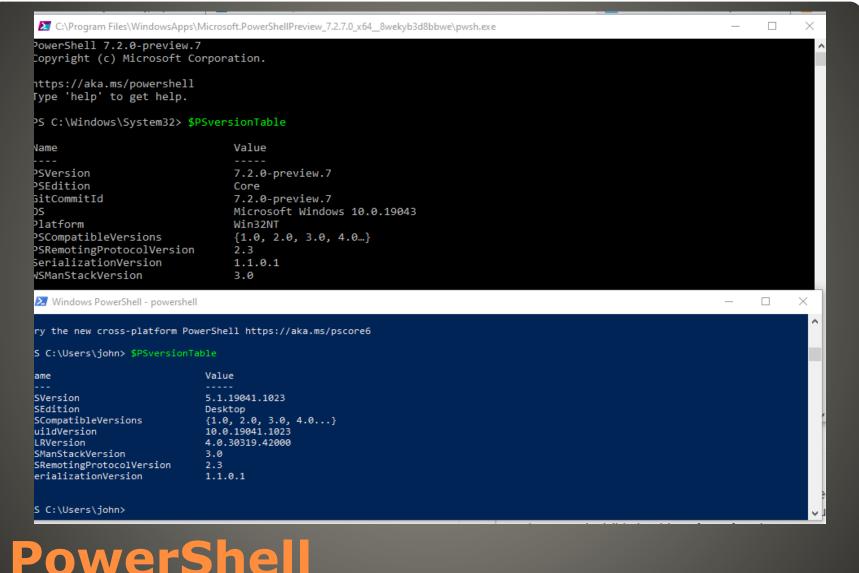
NEW Office macro disable bypass

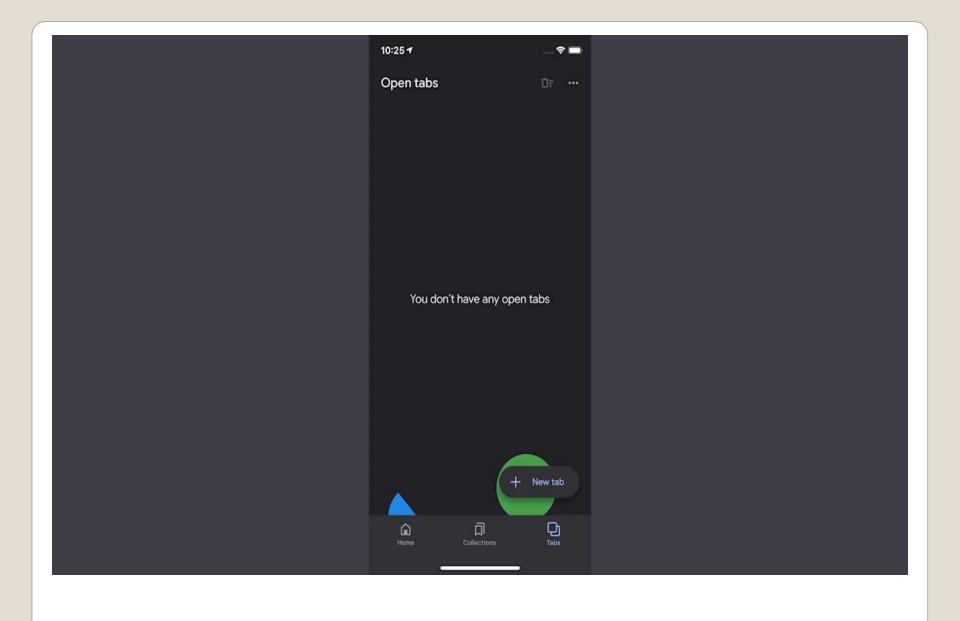
Macro Settings

- Disable all macros without notification
- Disable all macros with notification
- Disable all macros except digitally signed macros
- Enable all macros (not recommended; potentially dangerous code can run)

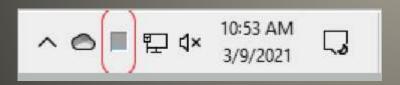
Office Macro Settings

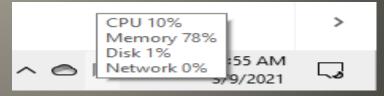




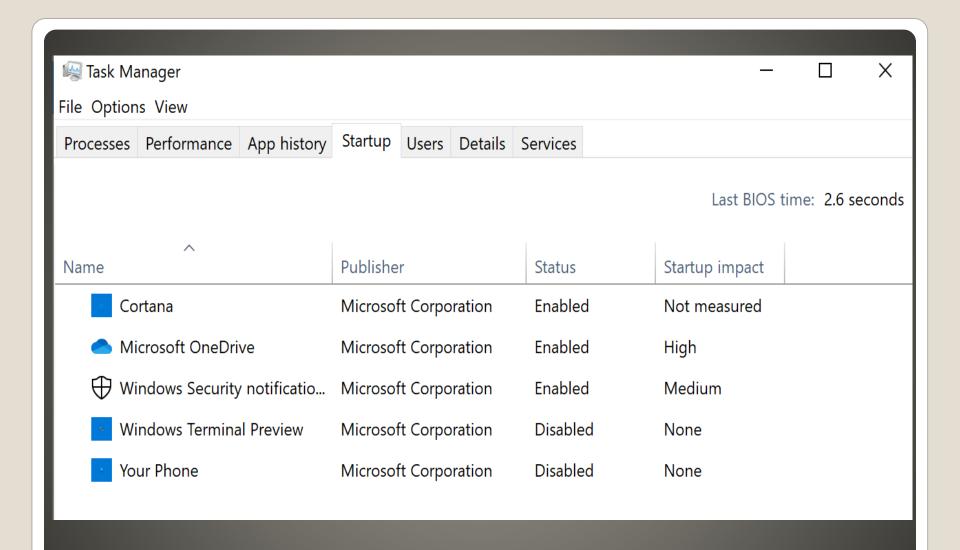


- Task Manager
 CTRL+SHIFT+ESC
 CTRL+ALT+DEL useful
 Right click empty space on task bar
 Win + R taskmgr
- Resource Monitor
- Performance > Open Resource Monitor

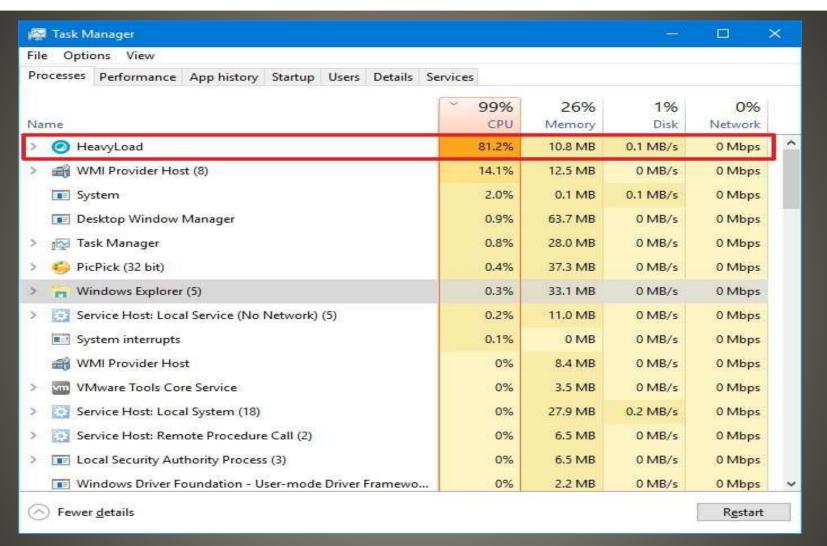




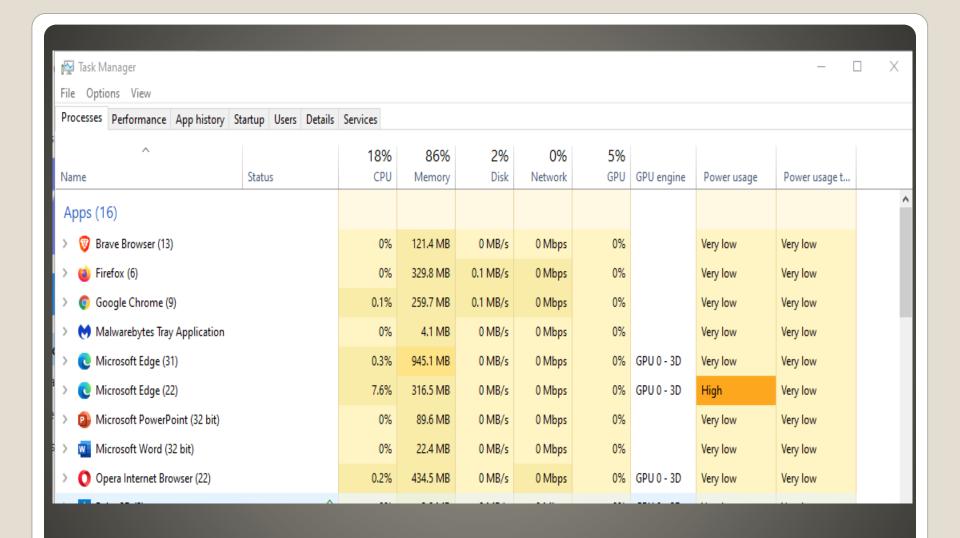
What's running?



Task Manager Startup Tab



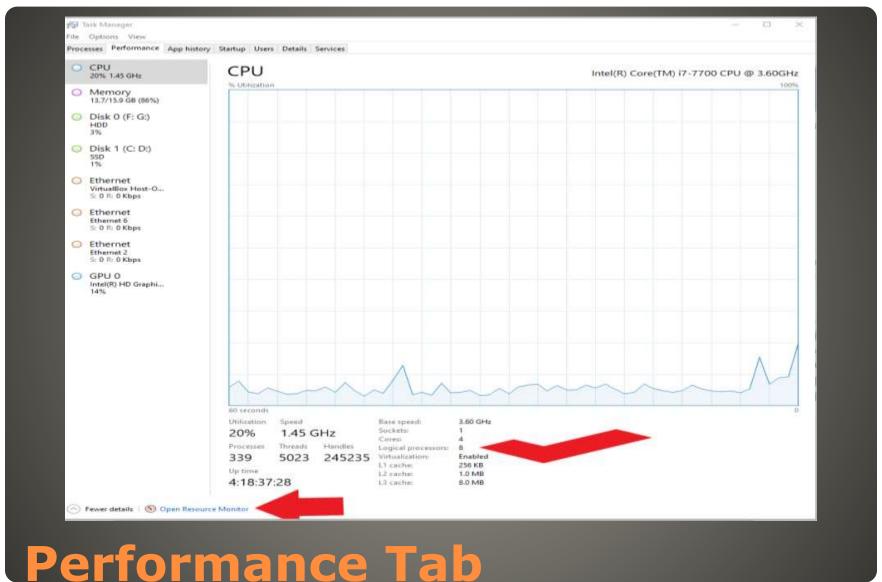
Task Manager process Tab

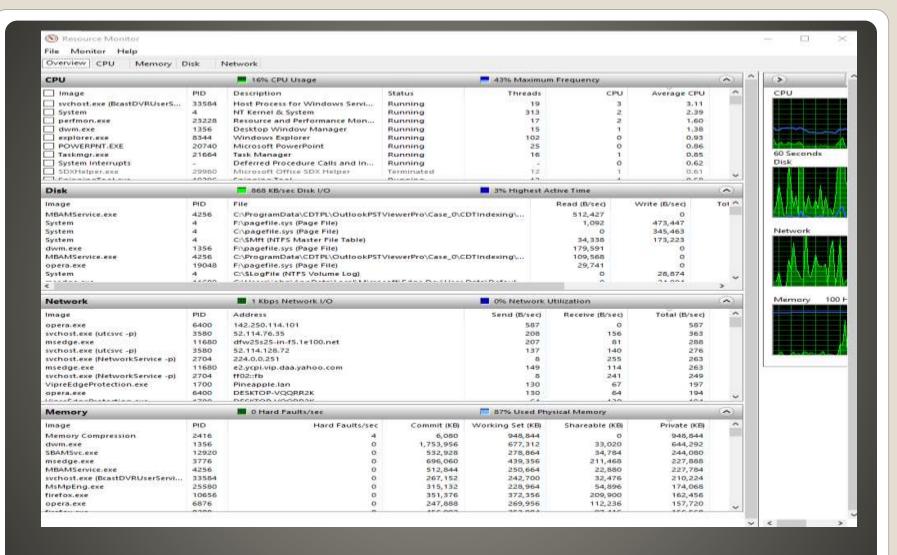


Processes Tab + Power

r Task Manager Task Manager									-	□ <i>></i>	(
File Options View											
Processes Performance App history St	tartup Users Details	Services									
		9%	86%	× 2%	0%	3%					
Name	Status	CPU	Memory	Disk	Network	GPU	GPU engine	Power usage	Power usage t		
📧 Desktop Window Manager	0.5%	373.2 MB	0.1 MB/s	0 Mbps	2.1%	GPU 0 - 3D	Very low	Very low		,	
> (Opera Internet Browser (22)	0.3%	442.0 MB	0.1 MB/s	0.1 Mbps	0%	GPU 0 - 3D	Very low	Very low			
> @ Microsoft Edge (22)		0.1%	269.0 MB	0.1 MB/s	0 Mbps	0%	GPU 0 - 3D	Very low	Very low		
■ System		1.5%	0.1 MB	0.1 MB/s	0 Mbps	0%		Low	Very low		
> 📧 Malwarebytes Service		0.1%	257.3 MB	0.1 MB/s	0 Mbps	0%		Very low	Very low		
> Anti Malware Service		0.1%	236.3 MB	0.1 MB/s	0 Mbps	0%		Very low	Very low		
> 🔟 Xbox Game Bar (3)	0.1%	22.7 MB	0.1 MB/s	0 Mbps	0%		Very low	Very low			

Sort on any column

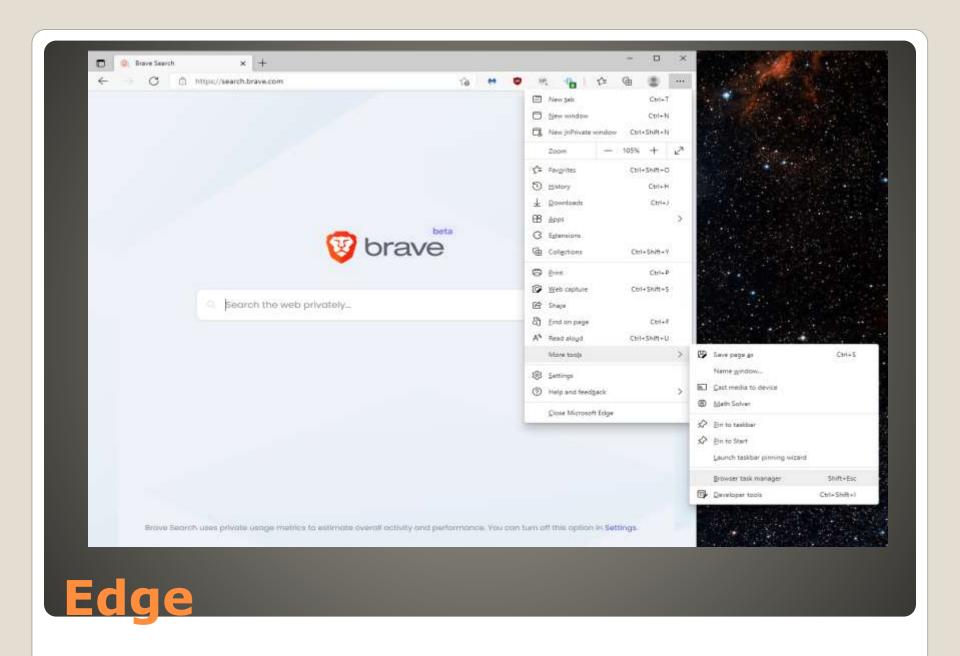


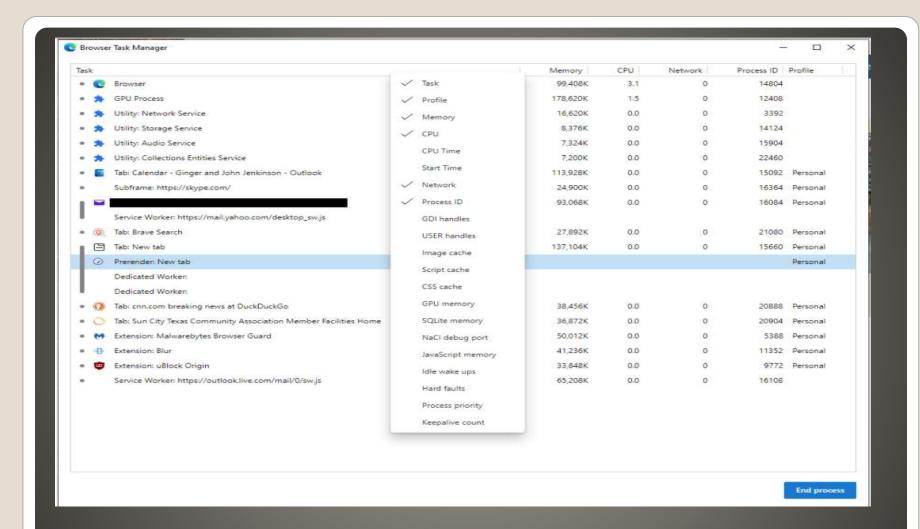


Resource Monitor

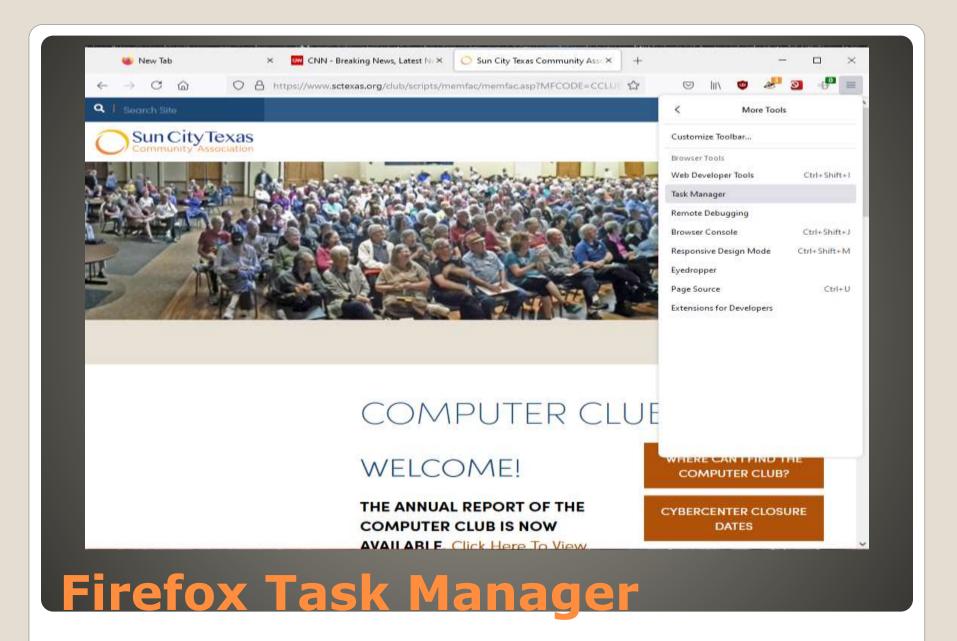
- Yeah but
- Browsers have performance monitors

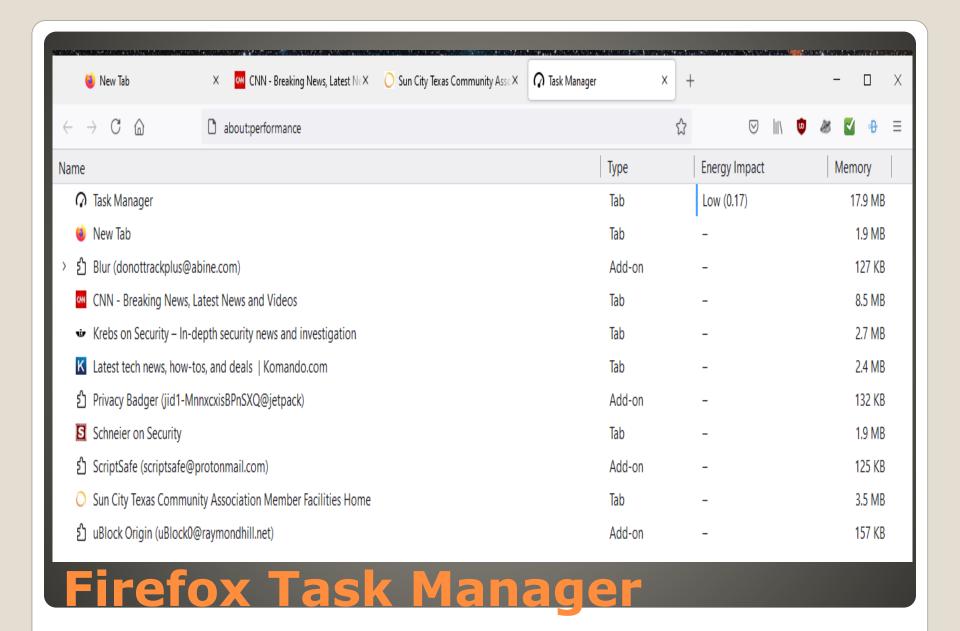
Task Manager slides from March 9, 2021

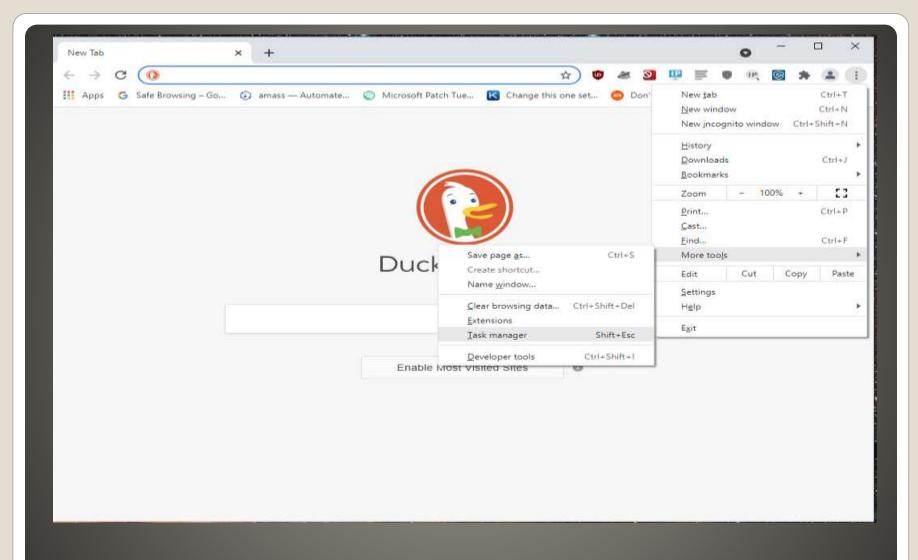




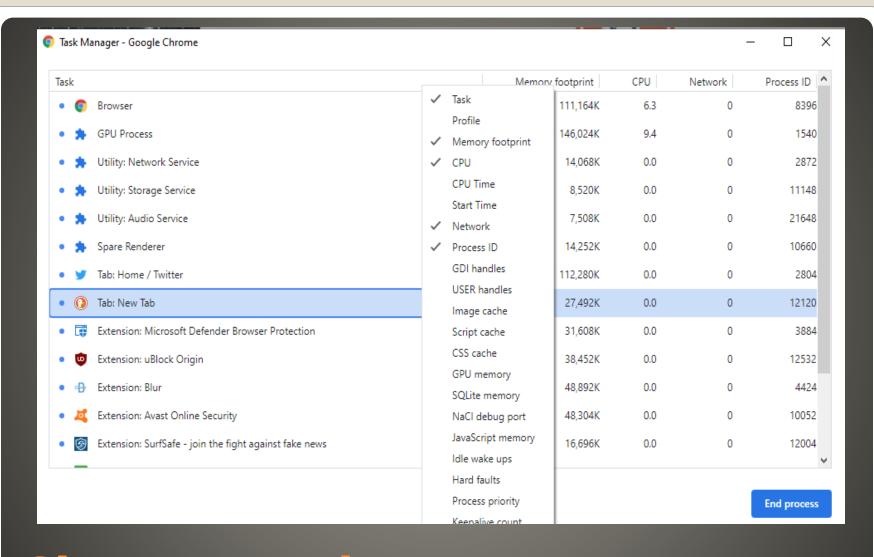
Edge Task Manager - details



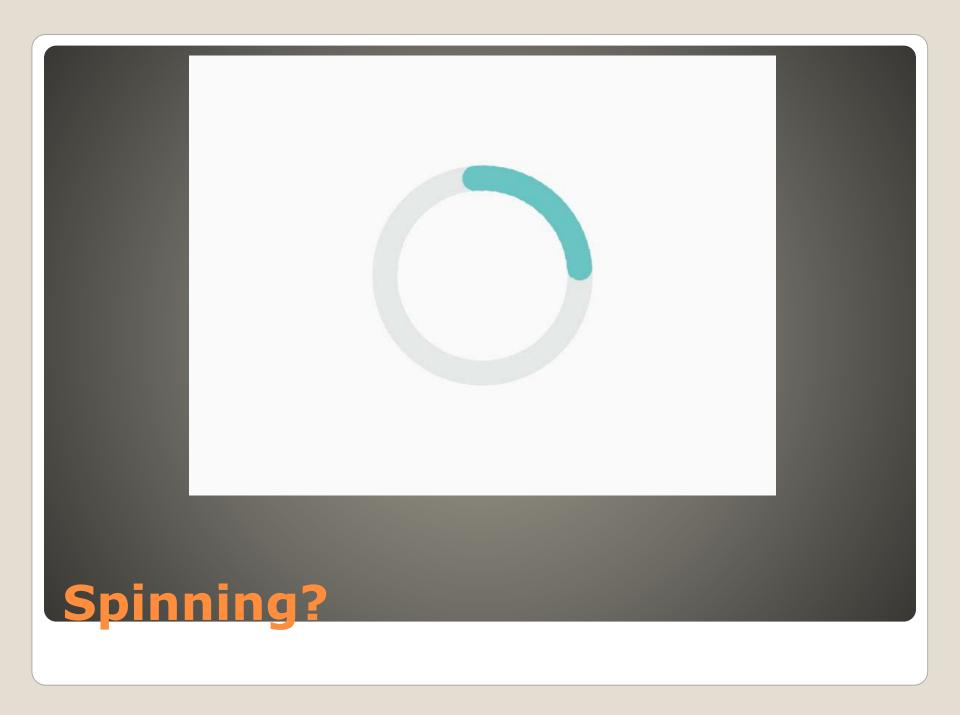




Chrome Task Manager



Chrome Task Manager





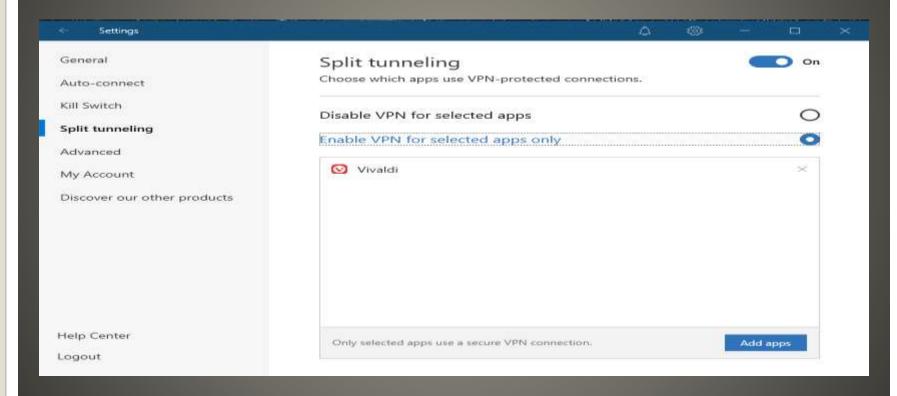
Task Manager - System Tray

- https://downforeveryoneorjustme.com
- https://down.com
- https://www.isitdownrightnow.com

Is it just me?



Best for ???



Split tunneling - VPN



 Dale Cockle has an eMail list he sends Microsoft Windows tips, news, and information to.
 If you would like to join his list Send your request:

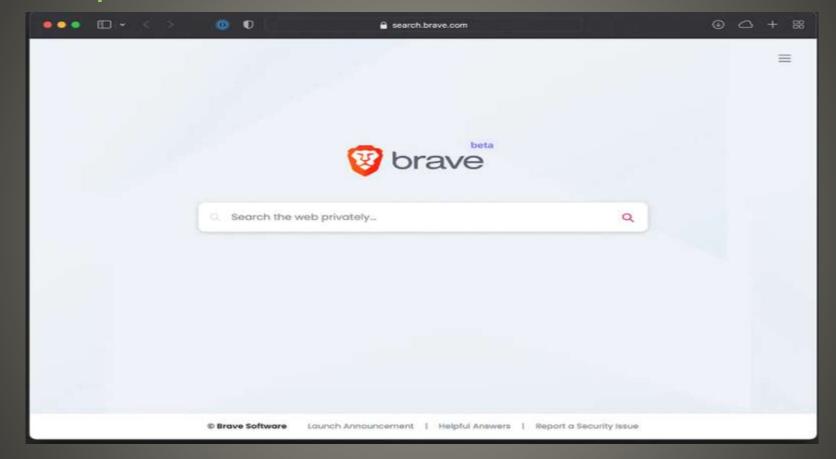
k5jic@tstar.net

SIG News



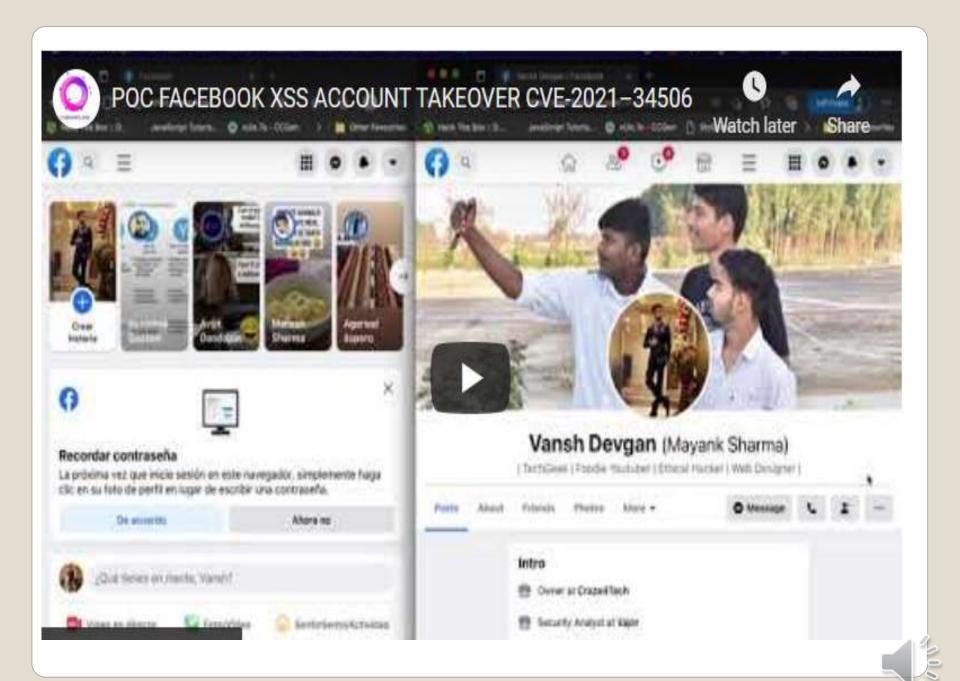
[Win10] Win11 Compatibility Checker
[Win10] WSJ - Windows 11 Revamped For Apps
[Win10] Even More Win11 (Links Only)
[Win10] More Win11 (Links Only)
[Win10] WSJ - Microsoft Windows Gets Fresh Start
[Win10] Windows 11 is a free upgrade
[Win10] Windows Icons from Ver 1 to 11
[Win 10] Windows 11 Confirmed
[Win10] End of support Oct 14, 2025
[Win10] More on Win 11 Story
[Win10] News and Interests Taskbar Widget
[Win10] Microsoft's Windows 11
[Win10] Copy and Move Files with File Explorer
[Win10] Securely deleting files
[Win10] Escape from "S" Mode
[Win10] How to go back to ver 20H2 from 21H1
[Win 10] Chrome Crashes After 21H1 Update
[Win10] MS dropping MSIE Support on many versions on June 15, 2022
[Win10] upgrade from 10 Home to 10 Pro for free

https://search.brave.com



Brave search engine - Beta



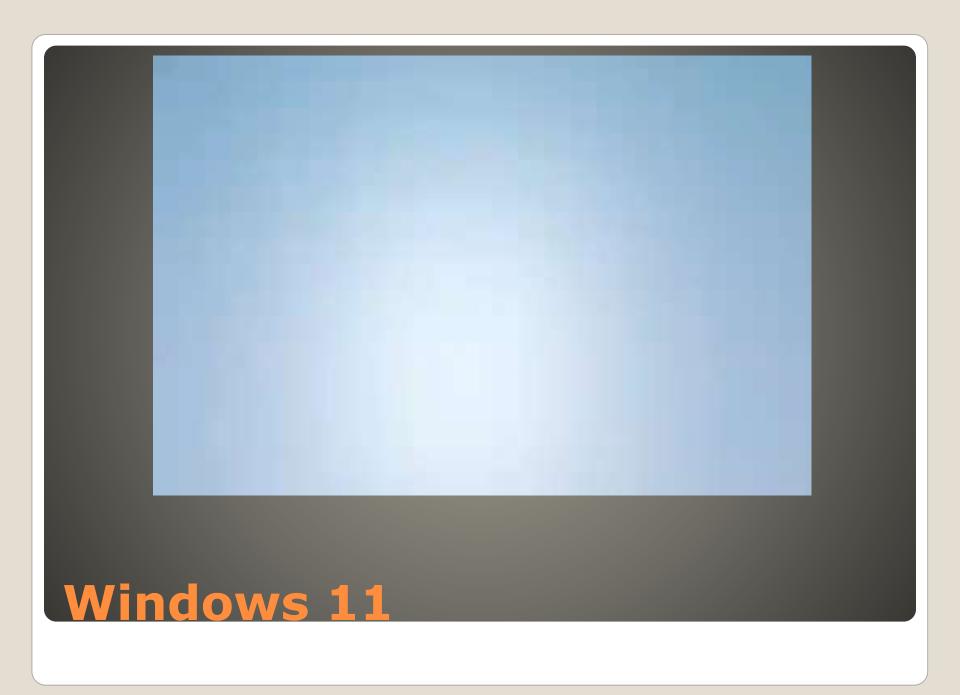


Microsoft Translator
 Universal cross site scripting
 3-June first report
 24-June patch
 \$20,000 reward

Edge vulnerability







- The last version of windows (sic)
- 64-bit, 4GB RAM, 64GB storage
- No 32-bit support
- Windows 10 support end Oct 14, 2025
- Windows 11 lure SHA256hash

B8426650c24a765c24083597a1eba48d9164802bd273b678c4fefe2a6da60dcb

Beware Insider ToS

- UEFI, secure boot capable
- TPM V2.0 or greater
- Home edition Microsoft account & Internet
- Microsoft store 12% fee or no fee
 Apple App store & Google Play 15-30%
 Android apps Amazon's Appstore
- App store Updates moved to Library icon



Windows 11 Android Apps Your Phone

Automatic HDR (High Dynamic Range)



Xbox features

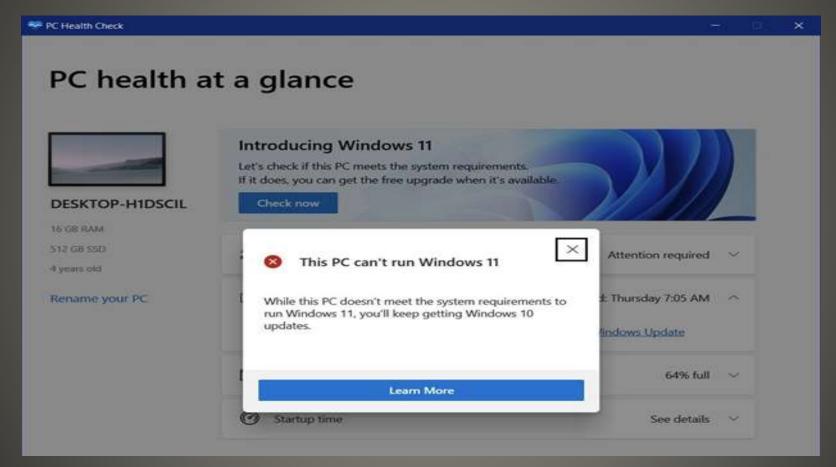
- Direct storage
 Large game worlds loaded from speedy drives
- Xbox game pass

Xbox Features Windows 11

- Windows widgets
- Windows Teams
- Snap layouts
- Rounded corners
- Feature updates one per year
- "Holiday Season" release
- Trusted Platform Module (TPM V2.0)
- Firmware attacks
- Modern CPUs, Secure boot, virtualizations
 Spectre & Meltdown

Windows 11 features

https://aka.ms/GetPCHealthCheckApp



PC Health Check

- Snap layouts
- Snap groups
- Taskbar teams
- Teams update
- Widgets
- Enhanced touchscreen, pen, voice
- Xbox
- Design/Interface
- Android App integration
- Virtual desktop improvements
- Smaller security updates
- 10-day roll-back

Windows 11 features

- Windows 104.4.0-19041
- Windows 114.19.128

Windows 11 WSL

Windows Security > Virus & threat Protection > Device Security

Device Security

☐ Device security

Security that comes built into your device.

Core isolation

Virtualization-based security protects the core parts of your device.

Core isolation details

Security processor

Your security processor, called the trusted platform module (TPM), is providing additional encryption for your device.

Security processor details

Secure boot

Secure boot is on, preventing malicious software from loading when your device starts up.

Learn more

Security processor details

Information about the trusted platform module (TPM).

Specifications

Manufacturer Intel (INTC)
Manufacturer version 11.8.50.3399

Specification version 2.0

PPI specification version 1.3

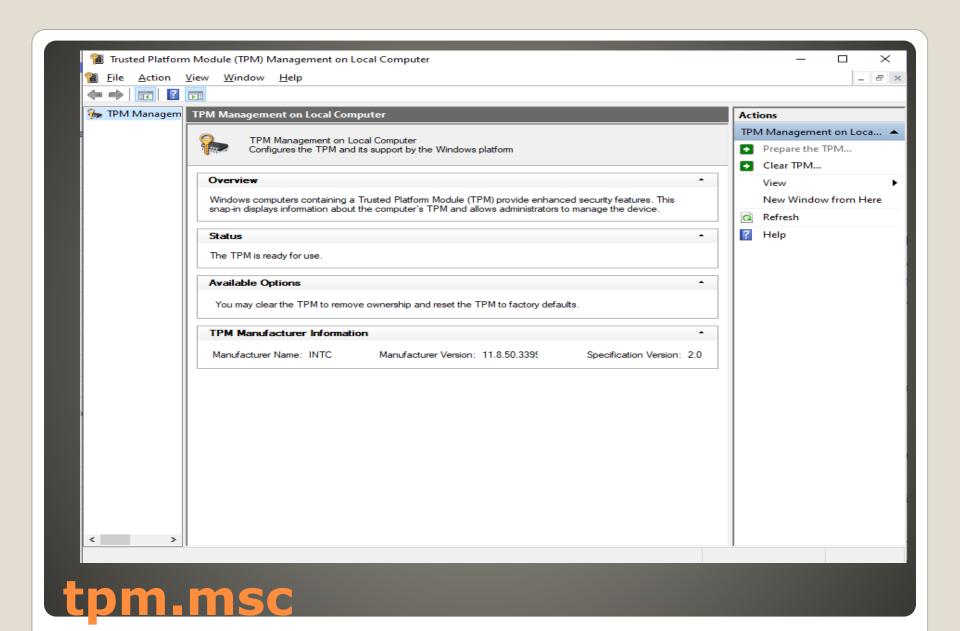
TPM specification sub-version 1.16 (9/21/2016)

PC client spec version 1.00

Status

Attestation Ready Storage Ready





- Intel Platform Trust Technology (PTT)
- AMD Ryzen fTPM
- Can add?
- FOLLOW STEPS

TPM

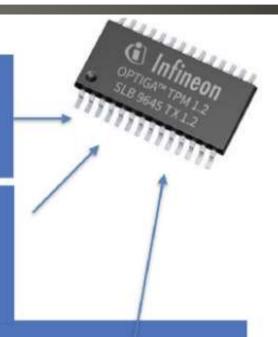
TPM 1.2 and 2.0

Crypto-processor

- Random number generator.
- RSA/ECC key generator.
- HMAC generator.
- SHA-1/SHA-256 hash generator.
- Signature engine
- Platform integrity. Makes sure the boot process is correct.
- Disk encryption. The encryption key used for dis encryption is fully or partially defined by the SRK.
- Password protection. The storage of the user's password in the chip.

Versatile memory:

- Platform Configuration Registers (PCR).
- Attestation Identity Keys (AIK).
- Storage Keys.



Persistent memory:

- Endorsement Key (EK). A private key from a key pair. A user wishing to send a message to this TPM uses the public key to encrypt. Public key is also stored on TPM.
- Storage Root Key (SRK). Used to encrypt disk storage.

TPM & such

- Trusted boot environment
- Endorsement key pair
- Storage Root key pair
- RSA (usually)
- Used to encrypt AES key for encryption
- Return of Coppersmith Attack week RSA prime number generator Estonia e-ID Static ID -> Mobile devices

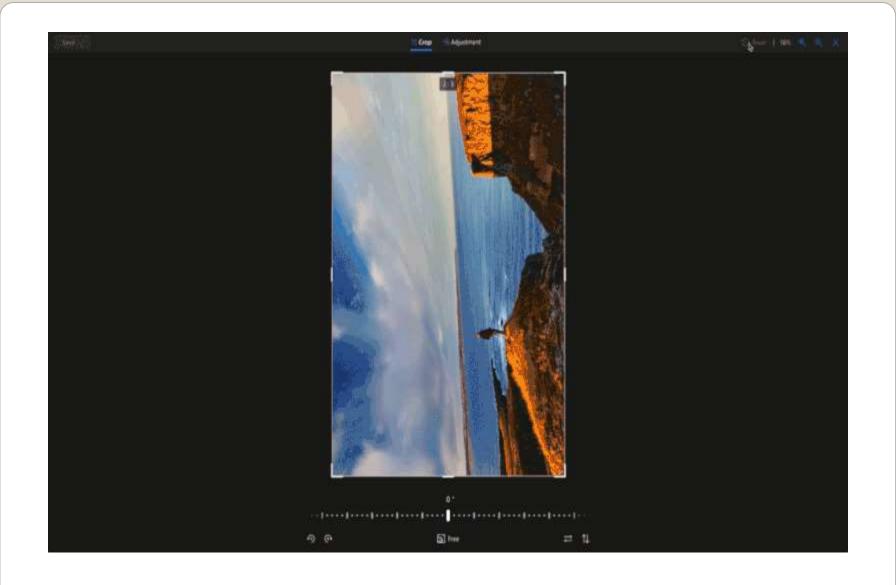
TPM & such

- Dual screen devices Windows 10X
- Task Bar icons centered
- Cleaner Tray
- New Start button and menu



- More photo editing capabilities
- More organizational features
- Web and Android
- Personal OneDrive accounts

Microsoft OneDrive



Other Updates (32)

2021-06 Cumulative Update Preview for .NET Framework 3.5 and 4.8 for Windows 10 Version 21H1 for x64 (KB5003537)

Successfully installed on 6/23/2021

Windows Update

.NET Framework 3.5 and 4.8

The June 21, 2021 update for Windows 10, version 2004, Windows Server, version 2004, Windows 10, version 20H2, and Windows Server, version 20H2, and Windows Version 21H1 includes cumulative reliability improvements in .NET Framework 3.5 and 4.8. We recommend that you apply this update as part of your regular maintenance routines. Before you install this update, see the Prerequisites and Restart requirement sections.

Quality and reliability improvements

WPF₁ - Addresses an issue affecting a DataGrid contained in an outer ScrollViewer.

 Addresses a crash due to ElementNotAvailableException in a ListView with custom dataitem automation peers.

CLR₂ - When the process is not under high memory pressure it tends to favor doing BGCs over doing full compacting GCs. This is usually desirable but if the app behavior changes dramatically, it could cause much of the fragmentation in older generations (ie, gen2 and LOH) to be unused. You can collect GC ETW events which tell you how much fragmentation there is in gen2 and LOH and verify if you are in this situation.

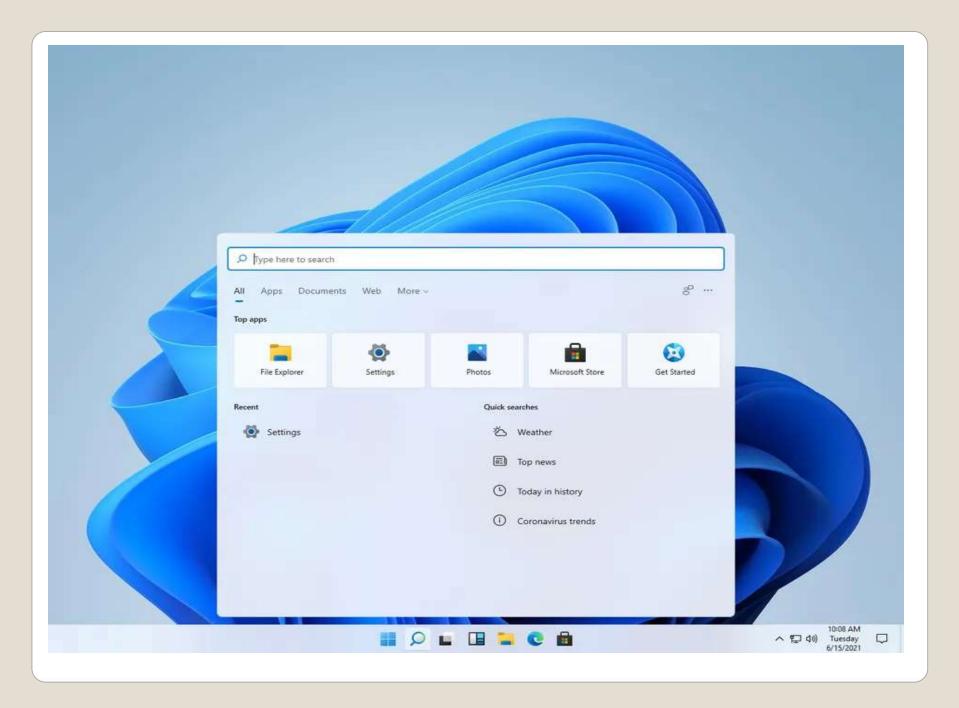
Winforms - Addresses an issue in Property Grid control to prevent incorrect data read in some scenarios in 64 bit processes.

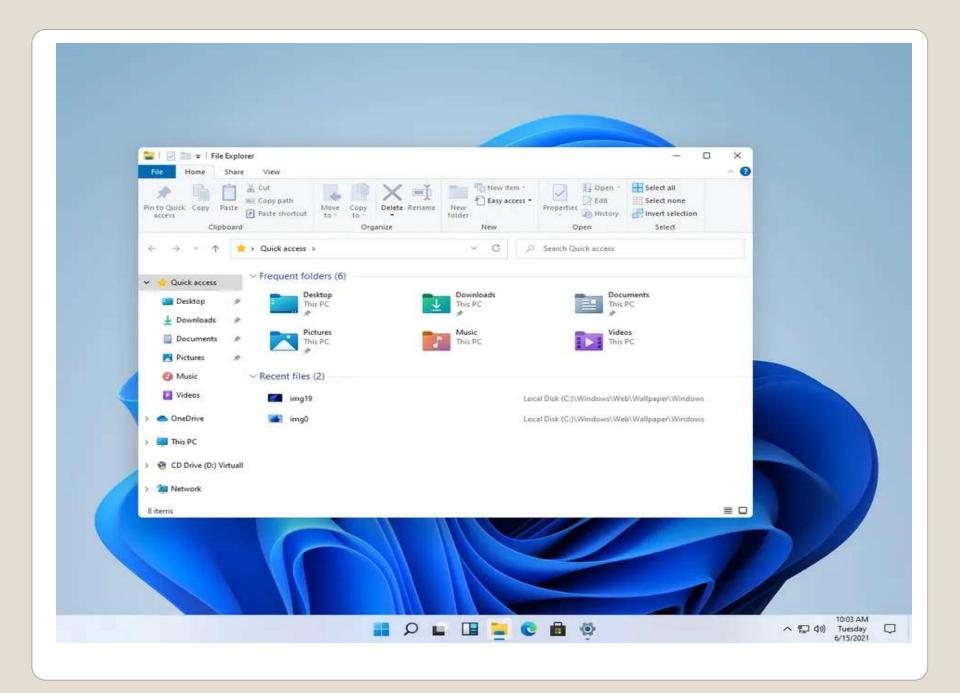
- Addresses an issue where System.Drawing double frees allocated memory when failing to get printer settings.

ClickOnce - Addresses a regression introduced in previous updates. We now honor WinTrust policy setting "Ignore timestamp revocation checks" setting when validating timestamps in ClickOnce manifests.

1 Windows Presentation Foundation (WPF)

2 Common Language Runtime (CLR)





Widget icon on Task Bar



Your device ran into a problem and needs to restart. We're just collecting some error info, and then you can restart.

100% complete

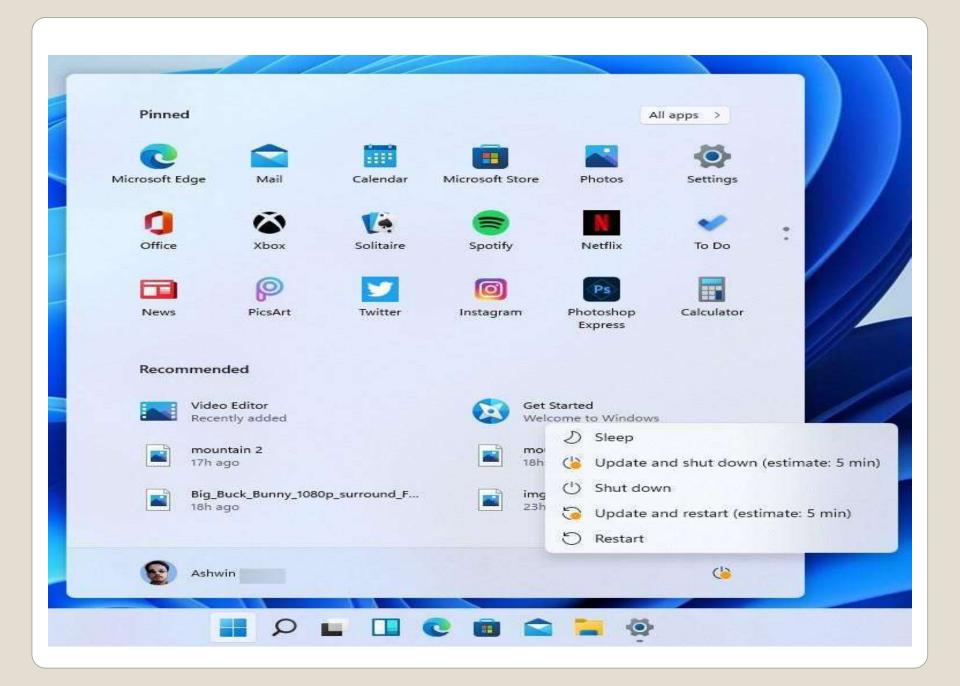


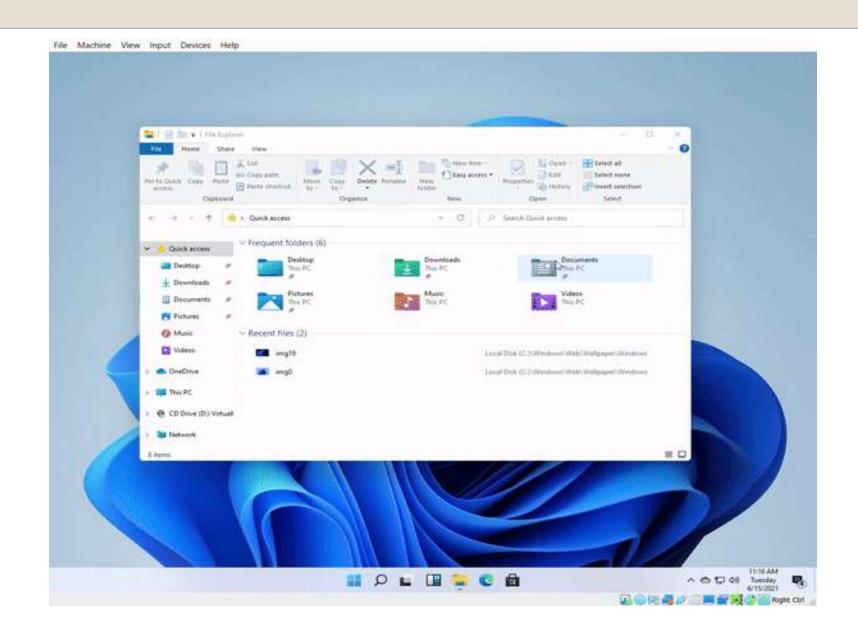
For more information about this issue and possible fixes, visit

https://www.windows.com/stopcode

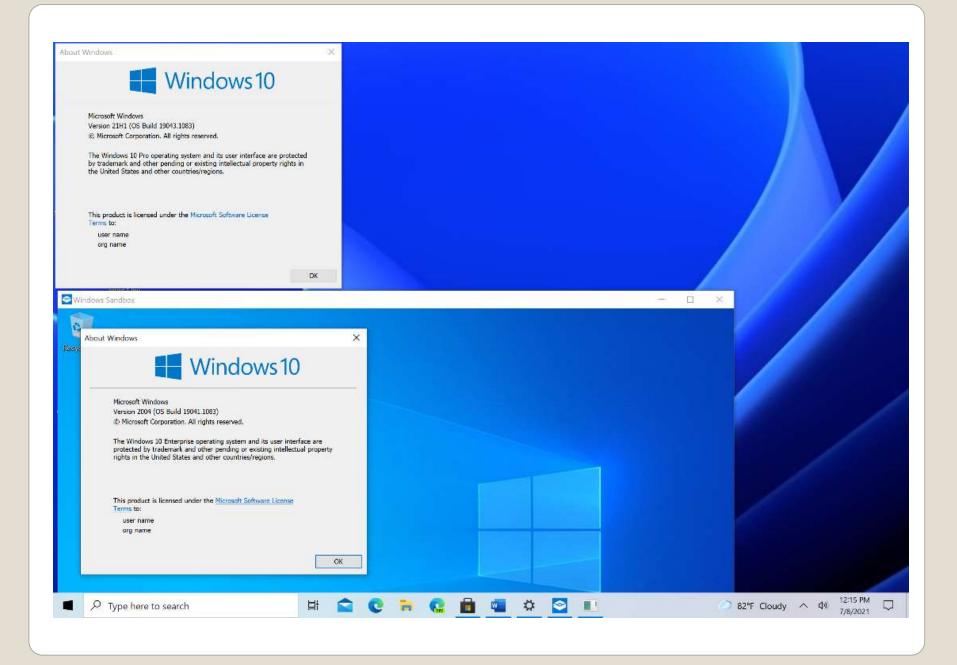
If you call a support person, give them this info:

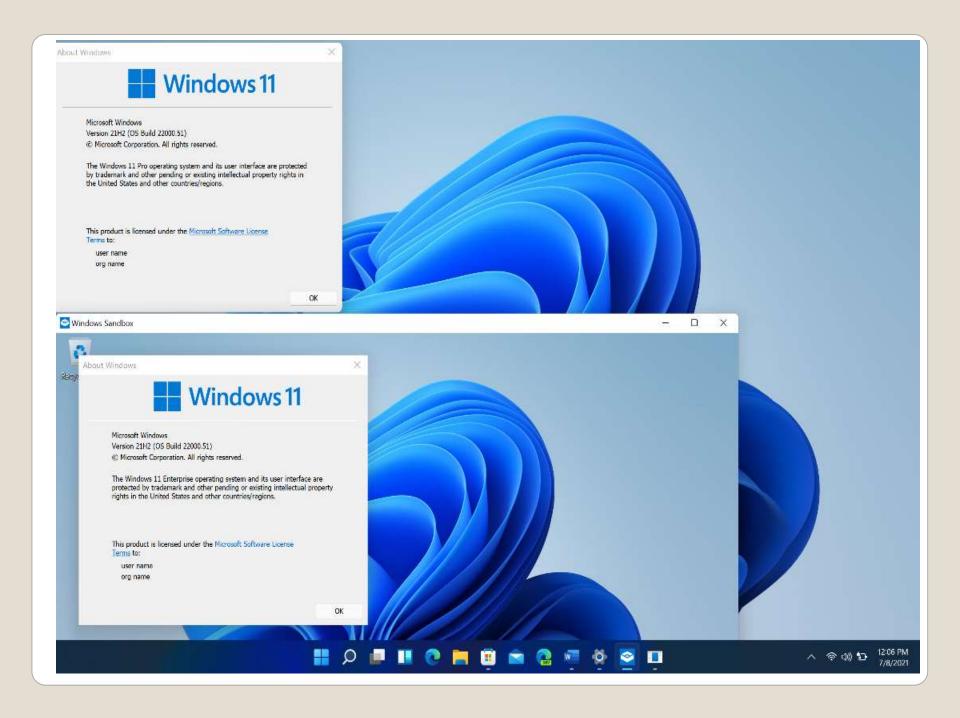
Stop code: SESSION1 INITIALIZATION FAILED

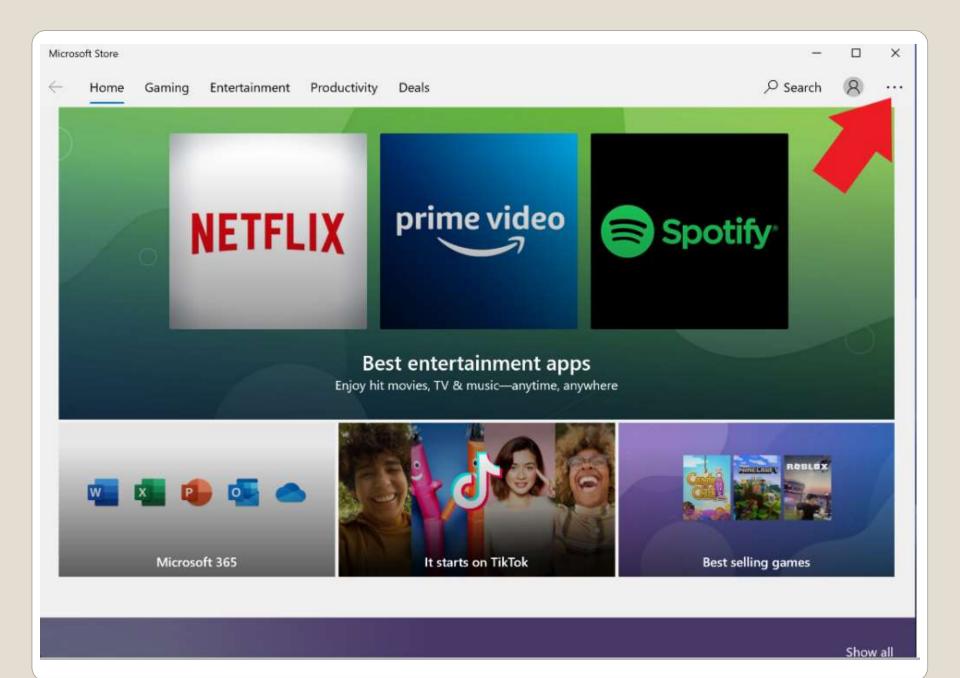


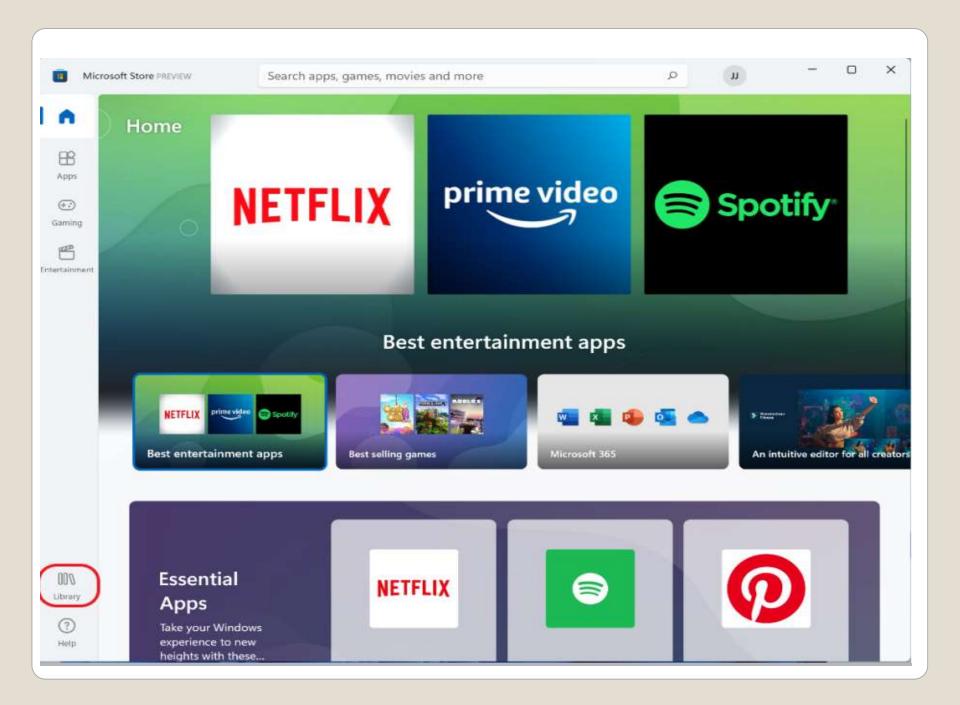


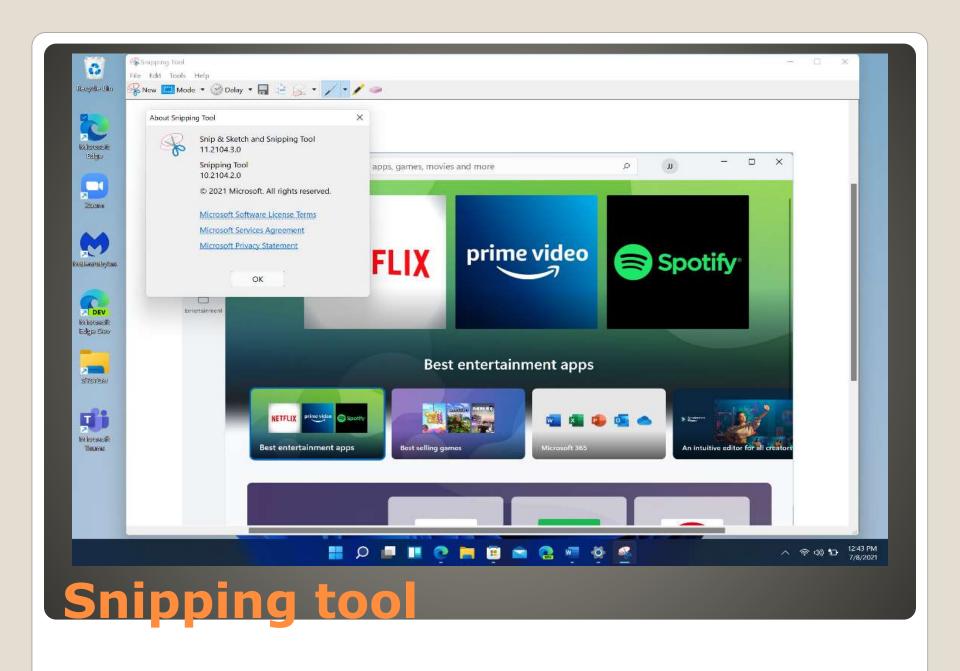


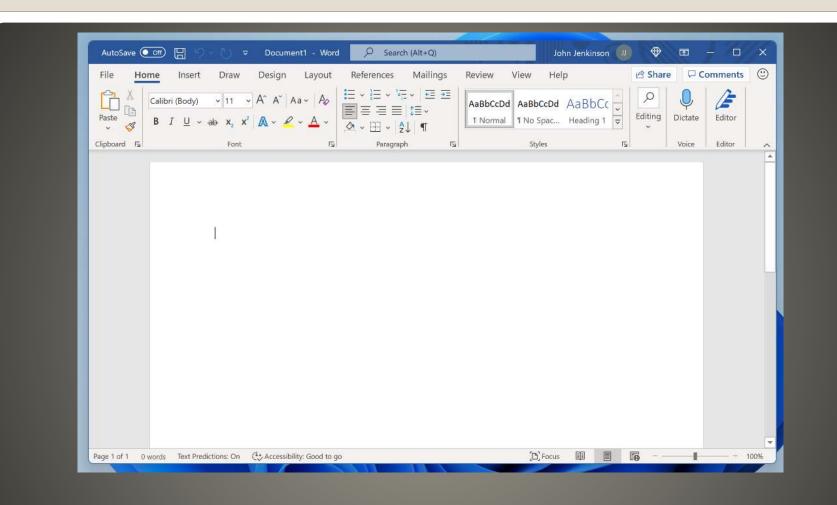




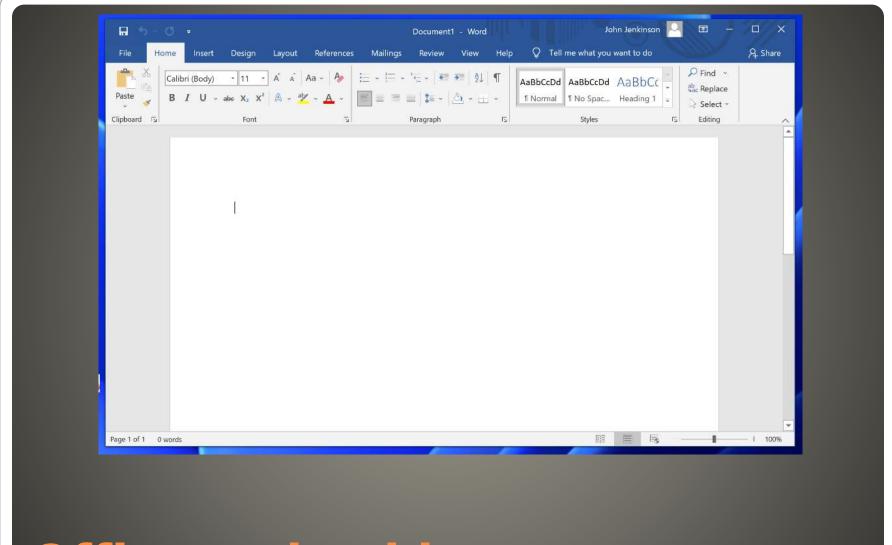




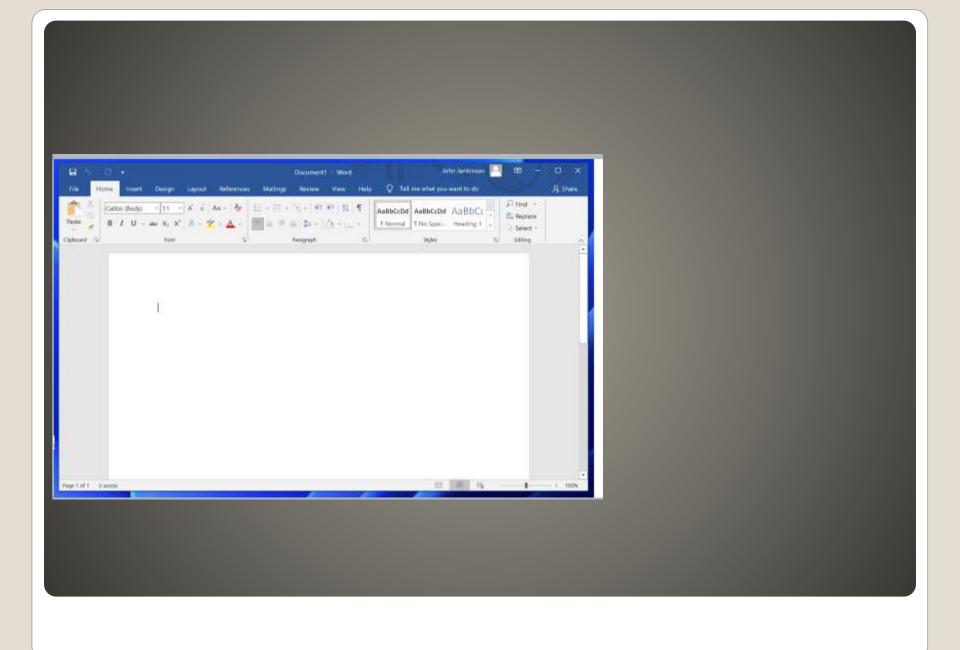


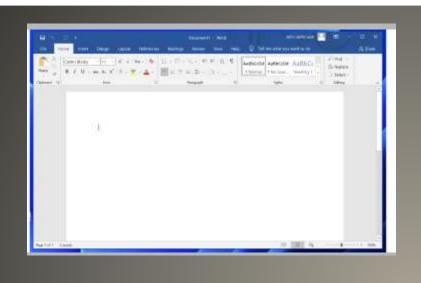


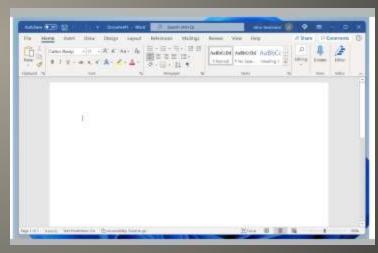
Office style refresh

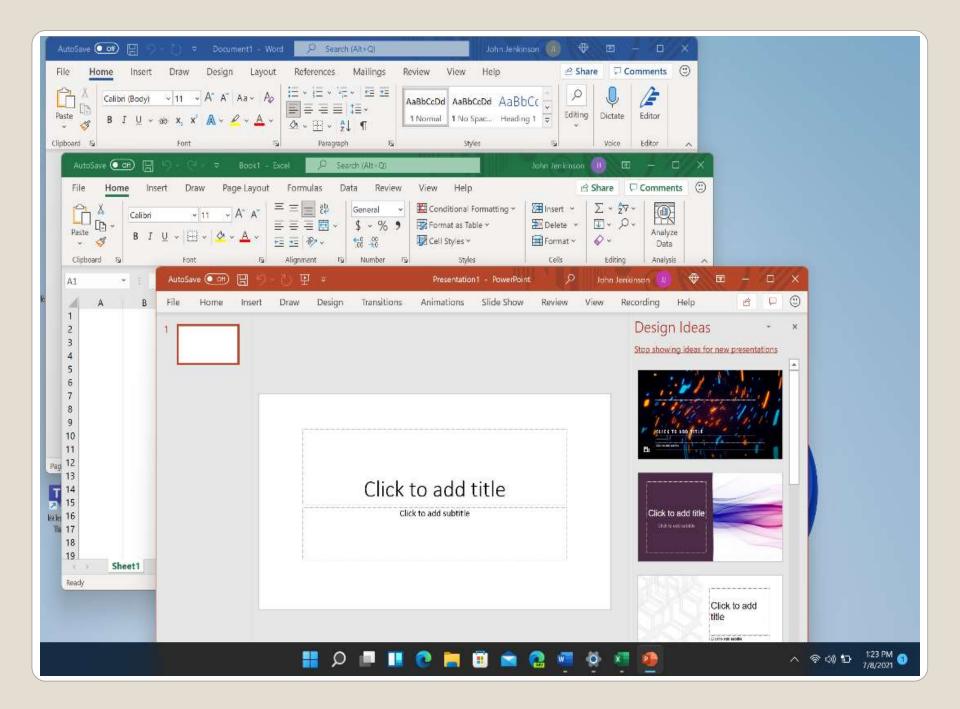


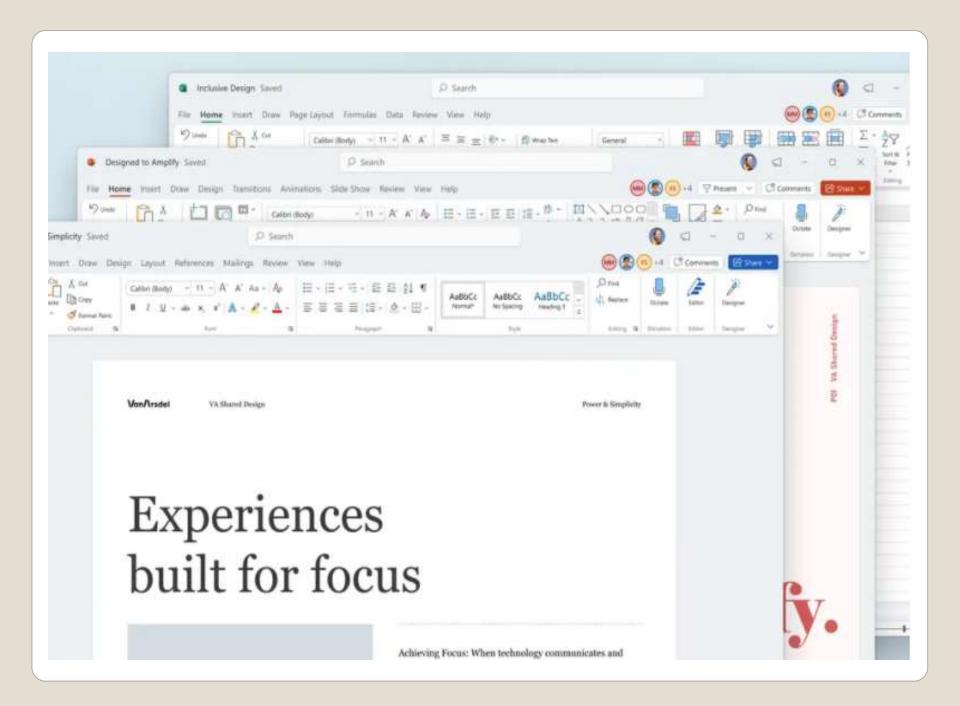
Office style old

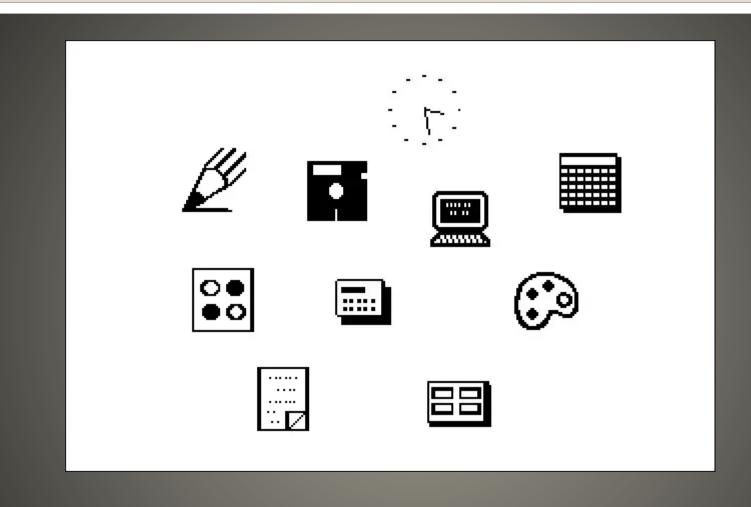




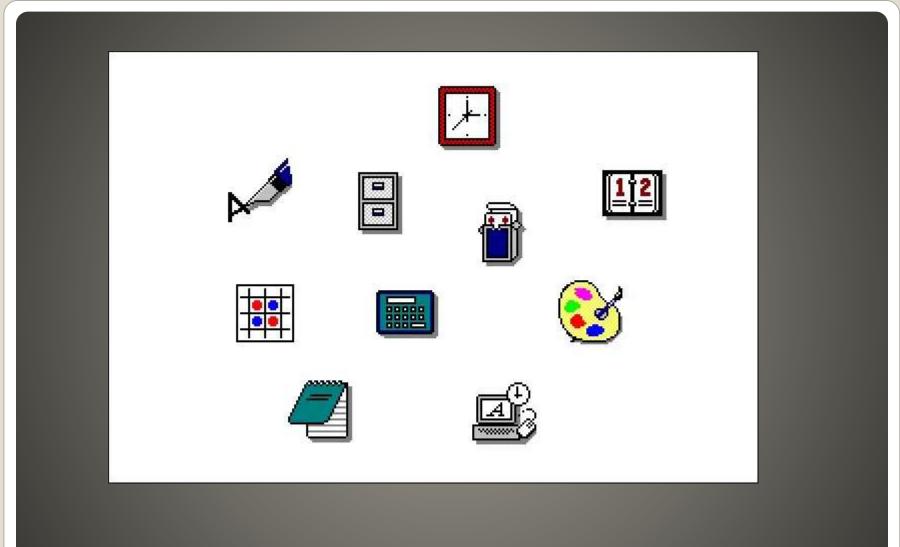








Windows



Windows 3.0 (1990)





















Windows 3.1 (1992)





















Windows 95 (1995)





















Windows 98 (1998)













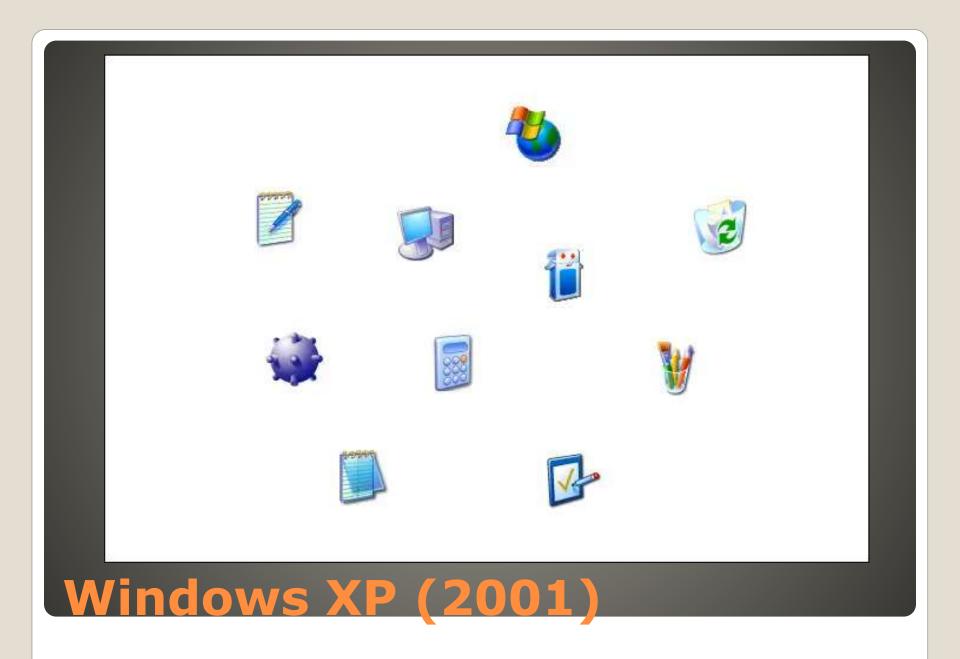








Windows 2000 (2000)





Windows Vista (2007)

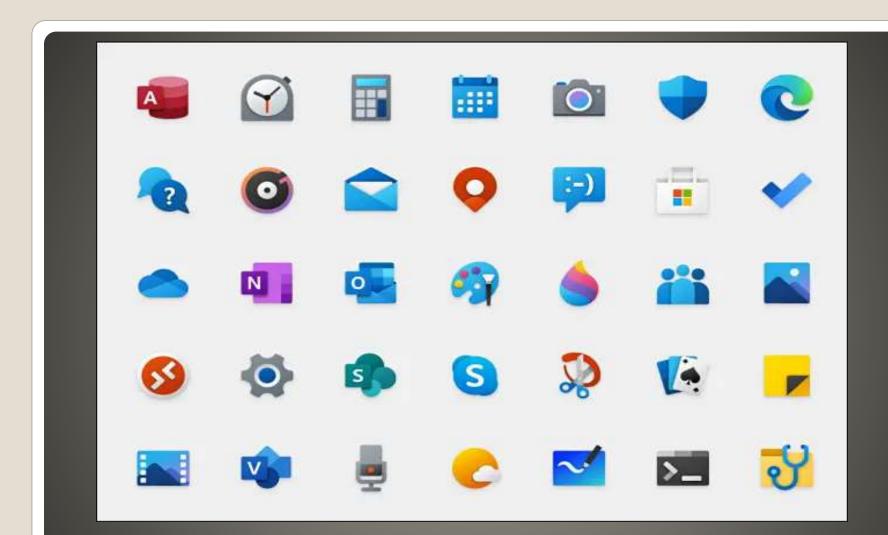


Windows 7 (2009)

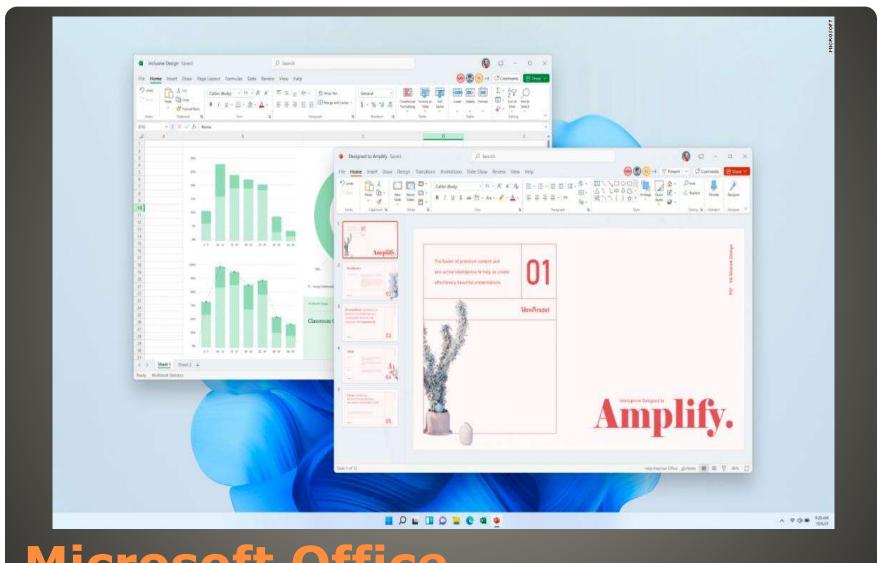


Windows 8 (2012)





Windows 11 (2021)?



Microsoft Offi

- Command ribbon colors
- Match Windows theme
- Word, Excel, PowerPoint, OneNote
 But not
- Outlook, Access, Project, Publisher, Visio yet

Microsoft Office

AI powered update News and Interest

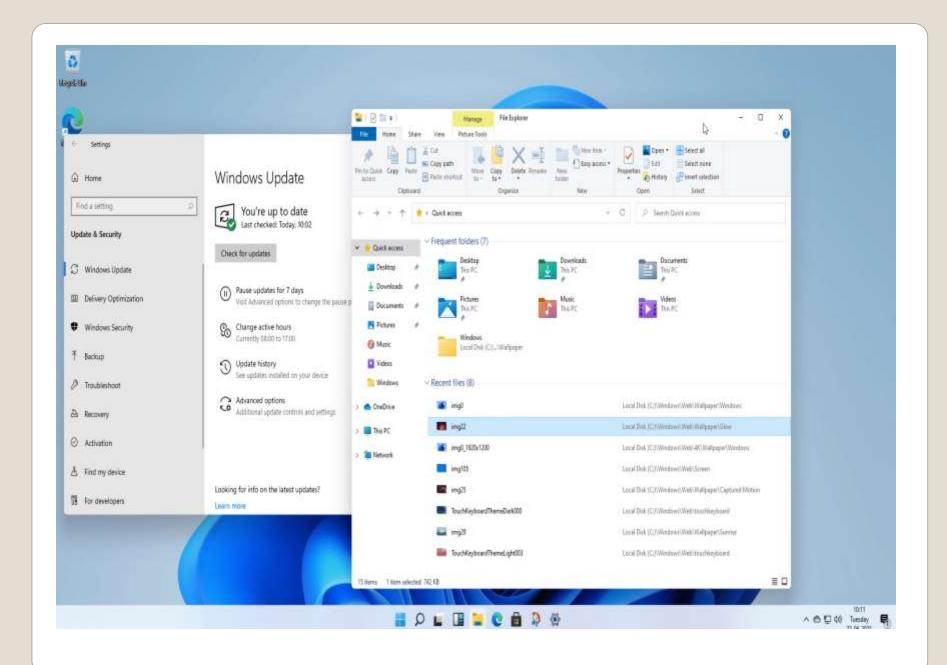


Widgets

Video chat platform - integration

Teams





Home Find a setting Ω System Battery Storage Multitasking Projecting to this PC Shared experiences

Multitasking

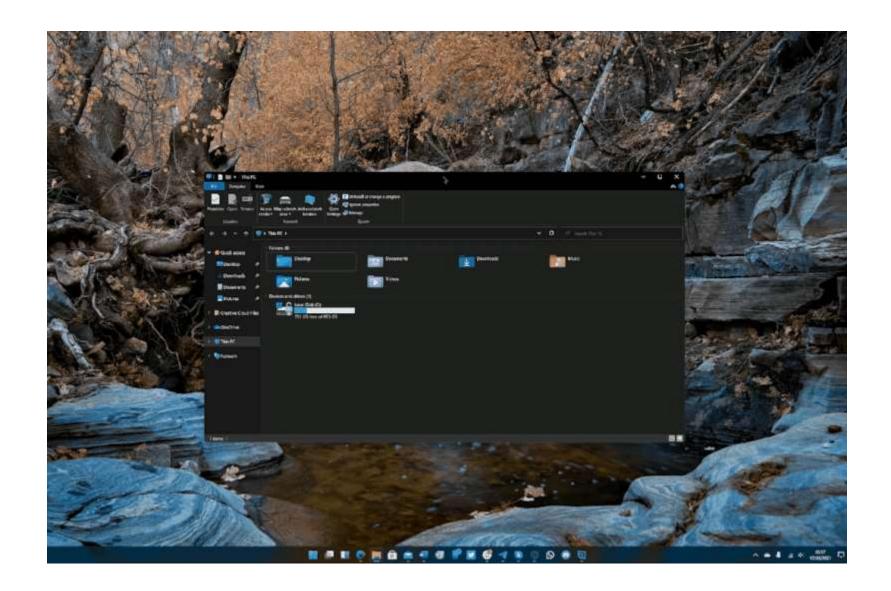
Snap windows

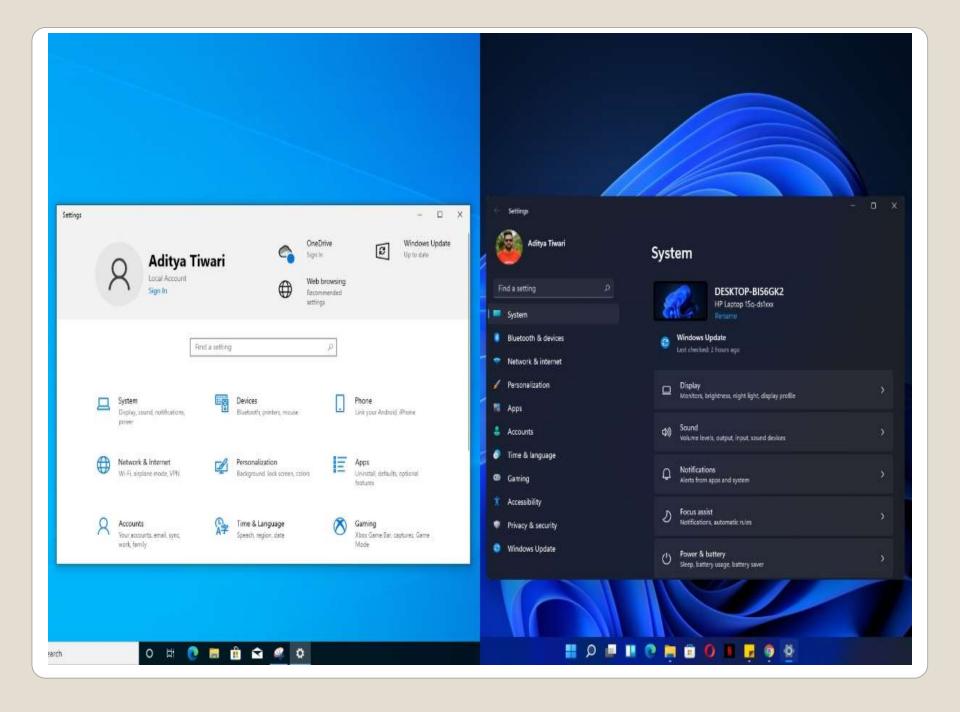




On

- When I snap a window, automatically size it to fill available space
- When I snap a window, show what I can snap next to it
- When I resize a snapped window, simultaneously resize any adjacent snapped window
- When I drag a window, let me snap it without dragging all the way to the screen edge
- Show snap layouts when I hover over a window's maximize button
- Show snap layouts that the app is part of when I hover over the taskbar buttons

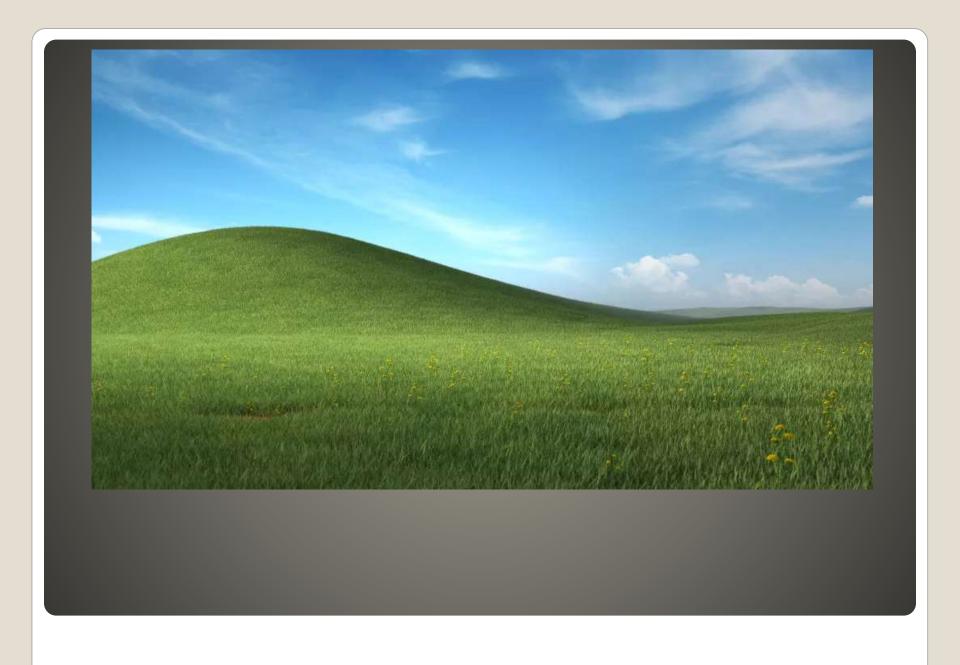




- Android Open Source Project (AOSP)
- Intel Bridge Technology
 Not required for AMD nor Arm
 Astoria Android project cancelled

Windows Subsystem for Android





21196.1

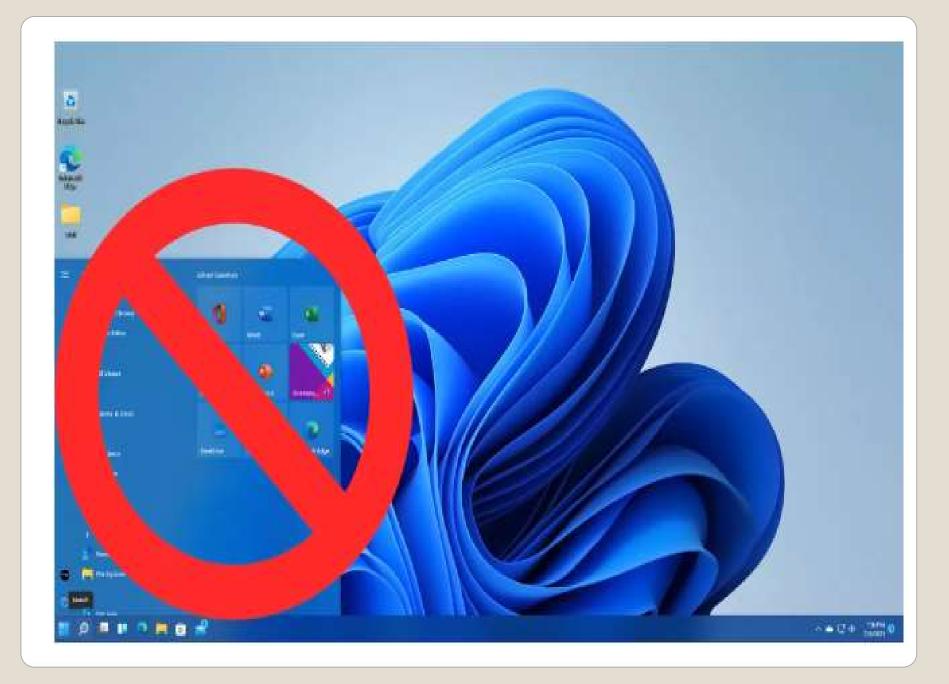
22000.65

Windows 11 beta versions

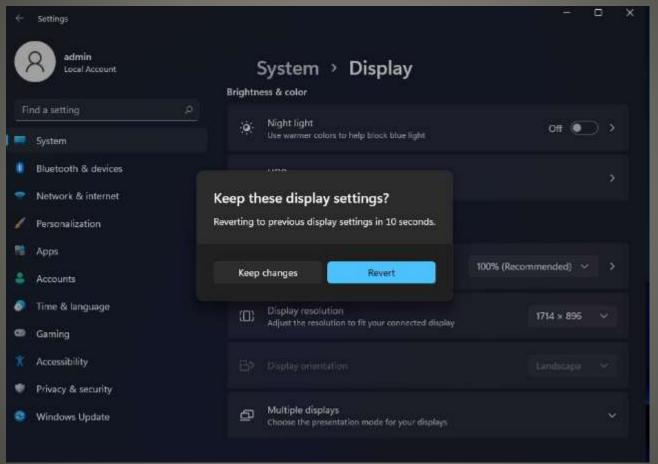
Registry setting now not working



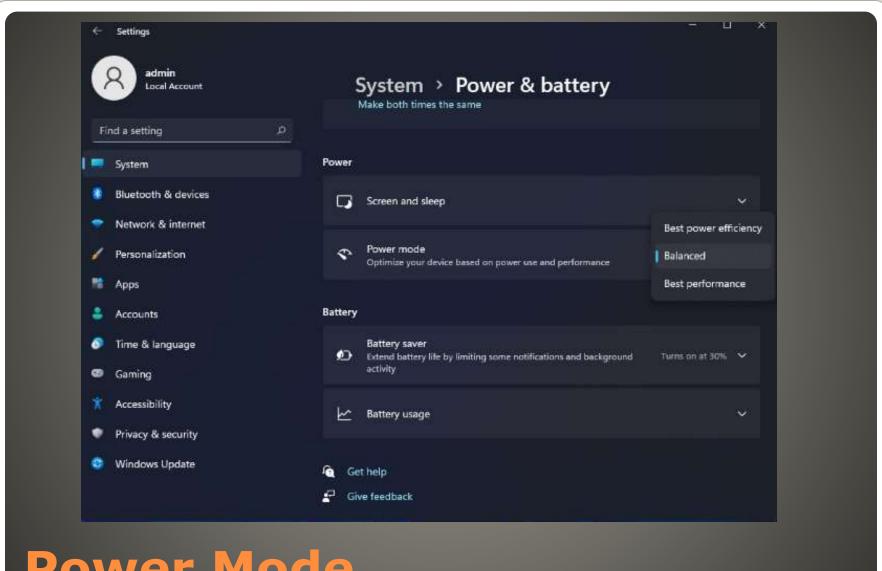
Start Button -> Start menu



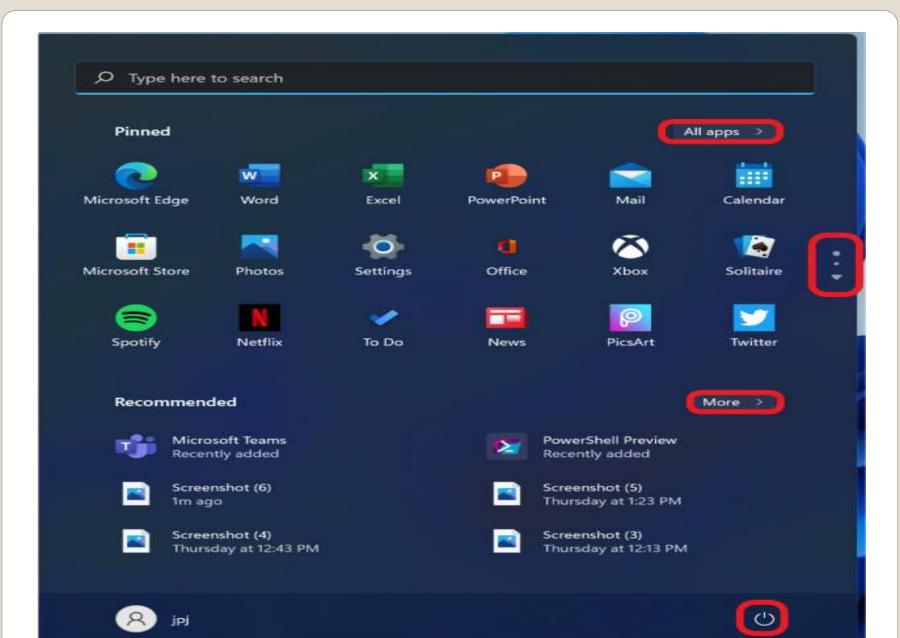
Windows 8-era Metro UI -> WinUi



Alert dialog box



Power Mode



- None of us are as experienced as all of us
- Awareness, Preparedness, Understanding
- Participate
- Topic Suggestions
- Questions: scccwindows@gmail.com

