

Sun City Computer Club

Windows SIG

July 28, 2020

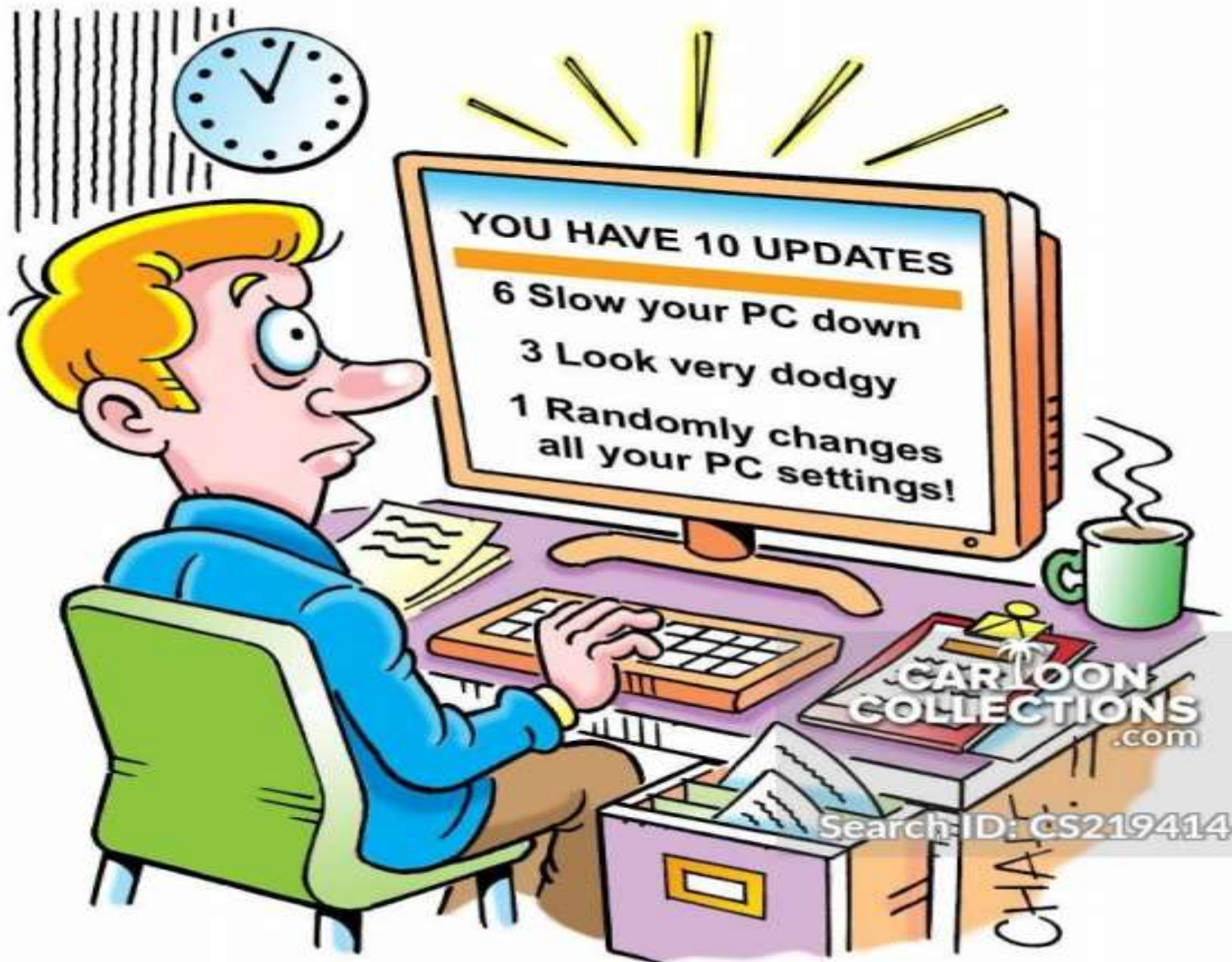
**Questions, Comments, Suggestions welcomed at
any time**

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

- Your input is desired, needed, requested,
- 2020 meeting schedule – Annex
SIG leader?
- Windows SIG meeting/presentation frequency
Once a month Second Tuesday

Windows SIG news



- Slack EU suit Teams with Office 365
- Apple store vs. Microsoft store
- Microsoft store updates
- Updates & inventory
- My recent 2004 experience
npcap driver
- A member's Enterprise license experience
- Folder vanish - rename
- Windows 10x

Windows News

- Recent Updates
 - Your Phone
 - Microsoft Photos
 - Cortana
 - Office
 - Microsoft store
 - Mail & calendar
 - Surface

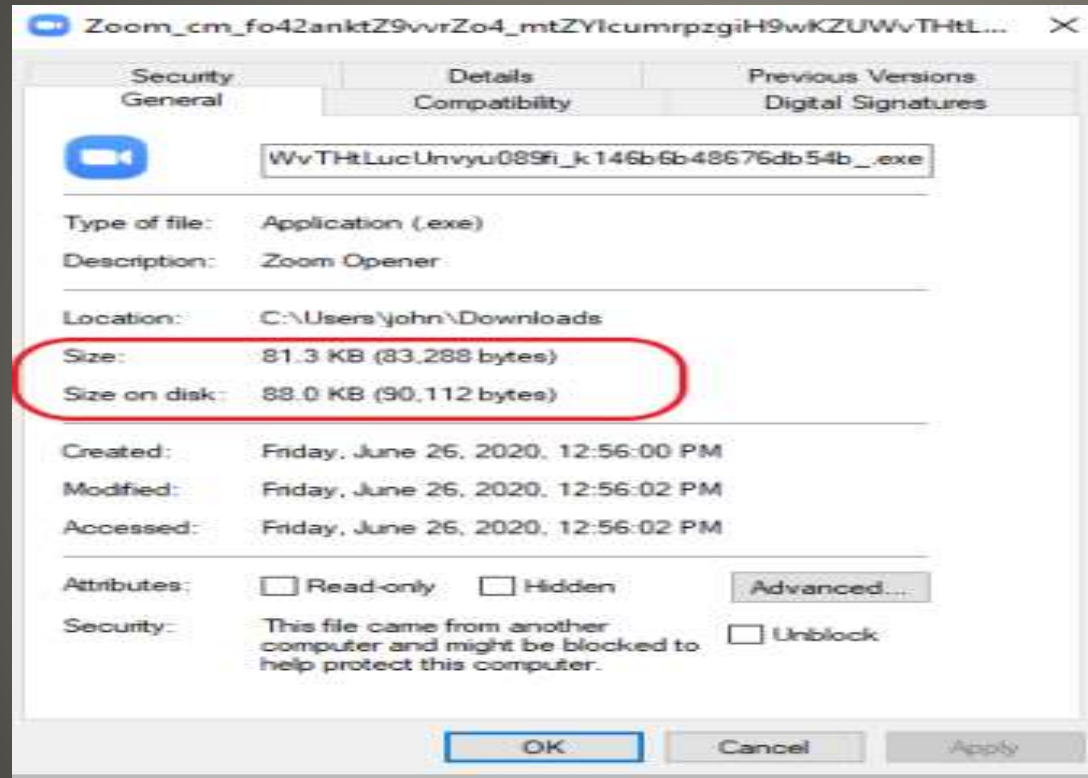
Microsoft store

- Perhaps 1 feature update per year?
- Container model
- Perhaps no 32bit support
- Shed legacy support
- Cloud PC Thin Clients ?

Microsoft Windows 10X

- Windows Home 1903, 1909, 2004
- More stable
- Windows Pro, Enterprise issues
 - Windows Defender Application Guard
 - Windows sandbox
- Windows 10 2004 seekers another phase
- Still no 2004 for Surface
- Securing Windows work in progress

- From July 14, 2020 Windows SIG



Alternate Data Stream

```
-a----- 6/26/2020 12:56 PM 83288 Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe
```

```
PS C:\Users\john\Downloads> Get-Item -path .\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe -stream *
```

```
PSPath      : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe::$DATA
PSParentPath : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads
PSChildName  : Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe::$DATA
PSDrive      : C
PSProvider   : Microsoft.PowerShell.Core\FileSystem
PSIsContainer : False
FileName     : C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe
Stream       :::$DATA
Length       : 83288
```

```
PSPath      : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe:SmartScreen
PSParentPath : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads
PSChildName  : Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe:SmartScreen
PSDrive      : C
PSProvider   : Microsoft.PowerShell.Core\FileSystem
PSIsContainer : False
FileName     : C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe
Stream       :SmartScreen
Length       : 7
```

```
PSPath      : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe:Zone.Identifier
PSParentPath : Microsoft.PowerShell.Core\FileSystem::C:\Users\john\Downloads
PSChildName  : Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe:Zone.Identifier
PSDrive      : C
PSProvider   : Microsoft.PowerShell.Core\FileSystem
PSIsContainer : False
FileName     : C:\Users\john\Downloads\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe
Stream       :Zone.Identifier
Length       : 851
```

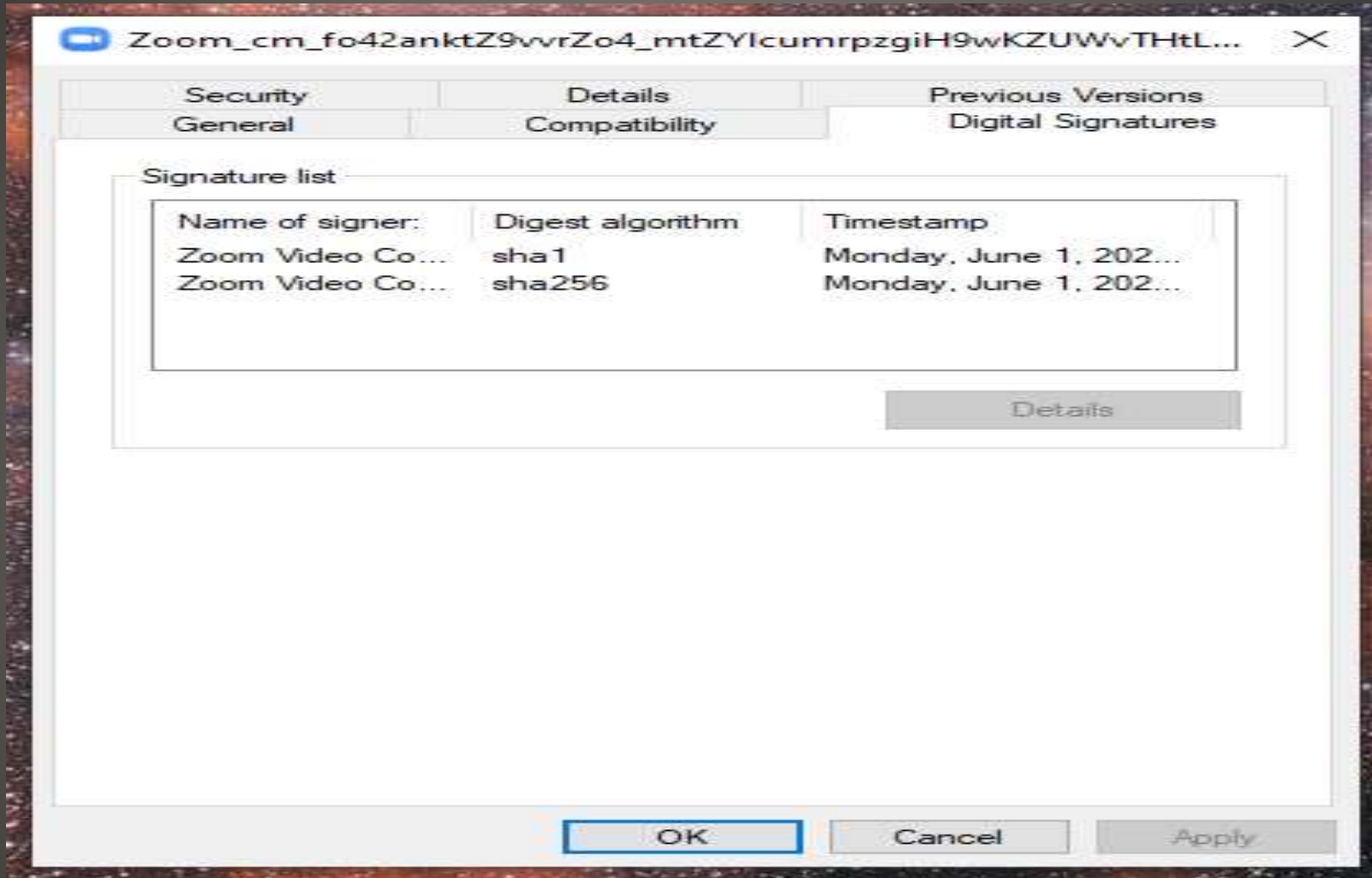
```
PS C:\Users\john\Downloads> get-Content -path .\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe -stream SmartScreen
```

```
Anaheim
```

```
PS C:\Users\john\Downloads> get-Content -path .\Zoom_cm_fo42anktZ9vvrZo4_mtZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi_k146b6b48676db54b_.exe -stream Zone.Identifier
```

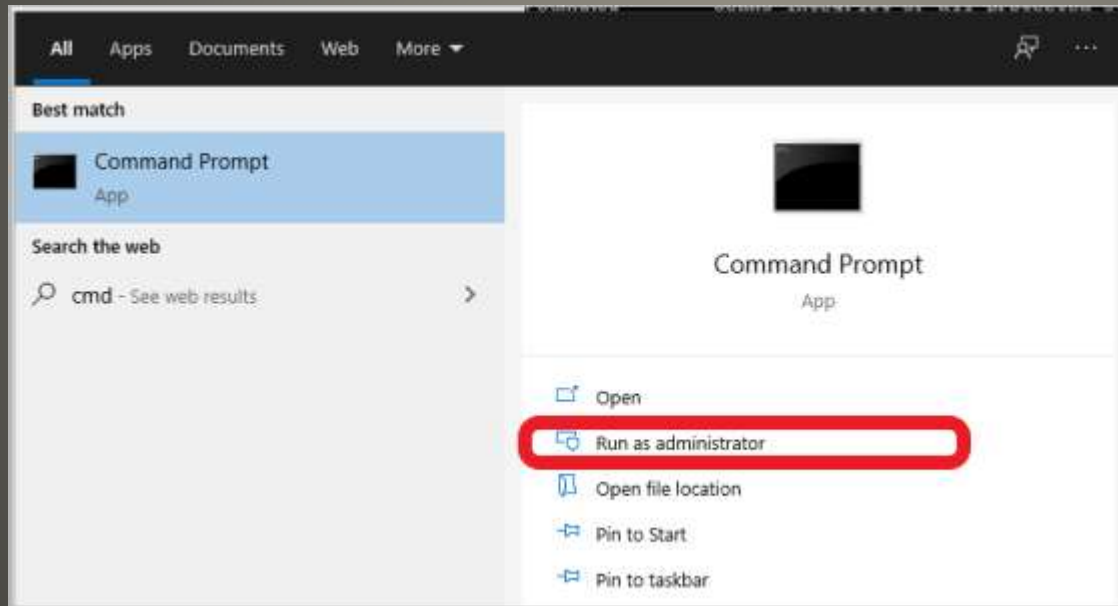
```
[ZoneTransfer]
```

```
ZoneId=3
ReferrerUrl=https://us02web.zoom.us/j/82850393858?tk=1aCmq9CwVTjH0Eu7L019c7VKZ_7sgdOk1CCo411K15k.DQIAAAAT5kSvAhY1S2ROMG1zV1EyMkwQd1JZRD1JRHBRAAAAAAAAAAAAAAAAAAAAAAAAAAAAA&pwd=c28GVk1XS3RwU3JqZ3N3UeVuRn
pLQT09
HostUrl=https://us02web.zoom.us/join/download/HV6p0Vc3s8EVX5eVs17SU0zGYPfM07ywBVEpapt1riHaVh4NC_QBfMP4ZufdyvJ-RoL_a9K0GTzmitxLqrX78q7MPfg3UjM4quzhytVnUJk1-Eh5sT2cS6Y3keclvsA-QQBse3ed-FYPmTRoIobfIO
H88nai5hY6D0CAzlyMC1jTQk094FxmUtyTcskxpa3-1_MLcfxj7P1eCz61268nbSpIIdqMxSp96qm58EX84x75iXPRD201Wc3cokXtyPc6SaWL24DoLtogwEajlyWZAOHgjoceuzgT0mI0wE9GLXe7A_7t1NcaW0Ag0S26yQ9c0TKtp-RVAgEm4_ub8FN3TuL65ht
MF5wnXMQ6s7Z24t8Vg185D78QLrKvKz-g5lgczrt1knttrzkjndjGen6QoNIW2swsCAXLwAQGEbTVmtjt7W1KxZb1Xharbygm5Kw3a4FNLqt3FMLPSCvY9JGvM79eD1VoZ3wZntT845a1PGSeKkRQ==/meeting/tZYLcumrpzgiH9wKZUMvTHTLucUnvyu089fi/Zo
om_launcher.exe
PS C:\Users\john\Downloads>
```



Check Digital Signature

- Scan, verify, fix operating system files
- Command line utility
- Start > Search > cmd



System File Check

Administrator: Command Prompt

```
C:\WINDOWS\system32>sfc \?
```

Microsoft (R) Windows (R) Resource Checker Version 6.0
Copyright (C) Microsoft Corporation. All rights reserved.

Scans the integrity of all protected system files and replaces incorrect versions with correct Microsoft versions.

SFC [/SCANNOW] [/VERIFYONLY] [/SCANFILE=<file>] [/VERIFYFILE=<file>]
[/OFFWINDIR=<offline windows directory> /OFFBOOTDIR=<offline boot directory> [/OFFLOGFILE=<log file path>]]

/SCANNOW	Scans integrity of all protected system files and repairs files with problems when possible.
/VERIFYONLY	Scans integrity of all protected system files. No repair operation is performed.
/SCANFILE	Scans integrity of the referenced file, repairs file if problems are identified. Specify full path <file>
/VERIFYFILE	Verifies the integrity of the file with full path <file>. No repair operation is performed.
/OFFBOOTDIR	For offline repair, specify the location of the offline boot directory
/OFFWINDIR	For offline repair, specify the location of the offline windows directory
/OFFLOGFILE	For offline repair, optionally enable logging by specifying a log file path

e.g.

```
sfc /SCANNOW
sfc /VERIFYFILE=c:\windows\system32\kernel32.dll
sfc /SCANFILE=d:\windows\system32\kernel32.dll /OFFBOOTDIR=d:\ /OFFWINDIR=d:\windows
sfc /SCANFILE=d:\windows\system32\kernel32.dll /OFFBOOTDIR=d:\ /OFFWINDIR=d:\windows /OFFLOGFILE=c:\log.txt
sfc /VERIFYONLY
```

```
C:\WINDOWS\system32>
```

/SCANNOW Scans integrity of all protected system files and repairs files with problems when possible.
/VERIFYONLY Scans integrity of all protected system files. No repair operation is performed.
/SCANFILE Scans integrity of the referenced file, repairs file if problems are identified. Specify full path <file>
/VERIFYFILE Verifies the integrity of the file with full path <file>. No repair operation is performed.
/OFFBOOTDIR For offline repair, specify the location of the offline boot directory
/OFFWINDIR For offline repair, specify the location of the offline windows directory
/OFFLOGFILE For offline repair, optionally enable logging by specifying a log file path

e.g.

```
sfc /SCANNOW
sfc /VERIFYFILE=c:\windows\system32\kernel32.dll
sfc /SCANFILE=d:\windows\system32\kernel32.dll /OFFBOOTDIR=d:\ /OFFWINDIR=d:\windows
sfc /SCANFILE=d:\windows\system32\kernel32.dll /OFFBOOTDIR=d:\ /OFFWINDIR=d:\windows /OFFLOGFILE=c:\log.txt
sfc /VERIFYONLY
```

```
C:\WINDOWS\system32>sfc /VERIFYONLY
```

Beginning system scan. This process will take some time.

Beginning verification phase of system scan.

Verification 100% complete.

Windows Resource Protection found integrity violations.

For online repairs, details are included in the CBS log file located at
windir\Logs\CBS\CBS.log. For example C:\Windows\Logs\CBS\CBS.log. For offline
repairs, details are included in the log file provided by the /OFFLOGFILE flag.

```
C:\WINDOWS\system32>
```

```

2020-07-28 13:08:06, Info      CSI  00000094 CSIPERF - FilePI Queue 168ms
2020-07-28 13:08:06, Info      CSI  00000095 CSIPERF - FilePI Queue 164ms
2020-07-28 13:08:07, Info      CSI  00000096 CSIPERF - FilePI Queue 201ms
2020-07-28 13:08:07, Info      CSI  00000097 CSIPERF - FilePI Queue 150ms
2020-07-28 13:08:07, Info      CSI  00000098 CSIPERF - FilePI Queue 205ms
2020-07-28 13:08:08, Info      CSI  00000099 CSIPERF - FilePI Queue 150ms
2020-07-28 13:08:08, Info      CSI  0000009a CSIPERF - FilePI Queue 273ms
2020-07-28 13:08:08, Info      CSI  0000009b Warning: Overlap: Directory \??\C:\WINDOWS\System32\drivers\en-US\ is owned twice or has its security set twice
Original owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
New owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
2020-07-28 13:08:08, Info      CSI  0000009c Warning: Overlap: Directory \??\C:\WINDOWS\System32\wbem\en-US\ is owned twice or has its security set twice
Original owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
New owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
2020-07-28 13:08:08, Info      CSI  0000009d Warning: Overlap: Directory \??\C:\WINDOWS\help\mui\0409\ is owned twice or has its security set twice
Original owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
New owner: Microsoft-Windows-Foundation-Default-Security.Resources, version 10.0.18362.1, arch amd64, culture [l5]en-US, nonSxS, pkt [1:8 b:31bf3856ad364e35]
2020-07-28 13:08:08, Info      CSI  0000009e [SR] Verify complete
2020-07-28 13:08:08, Info      CSI  0000009f [SR] Verifying 100 components
2020-07-28 13:08:08, Info      CSI  000000a0 [SR] Beginning Verify and Repair transaction

```

Component-Based Servicing

C:\ Administrator: Command Prompt

Microsoft Windows [Version 10.0.18363.997]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>sfc /SCANNOW

Beginning system scan. This process will take some time.

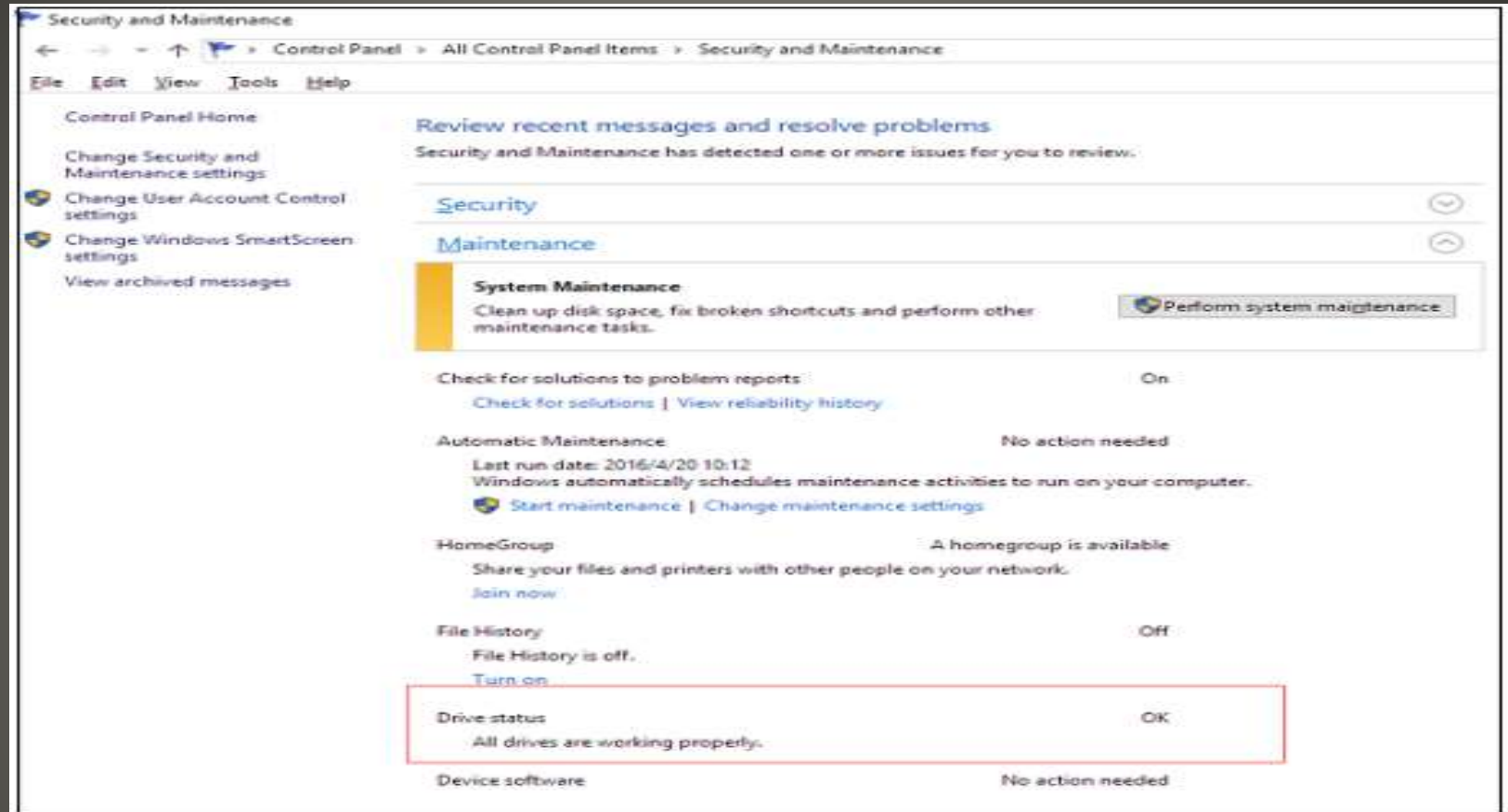
Beginning verification phase of system scan.
Verification 100% complete.

Windows Resource Protection found corrupt files and successfully repaired them.
For online repairs, details are included in the CBS log file located at
windir\Logs\CBS\CBS.log. For example C:\Windows\Logs\CBS\CBS.log. For offline
repairs, details are included in the log file provided by the /OFFLOGFILE flag.

C:\WINDOWS\system32>

2020-07-28 14:00:34, Info
2020-07-28 14:00:36, Info
2020-07-28 14:00:36, Info
2020-07-28 14:00:36, Info
2020-07-28 14:00:37, Info
2020-07-28 14:00:38, Info
2020-07-28 14:00:38, Info
2020-07-28 14:00:39, Info
2020-07-28 14:00:39, Info
2020-07-28 14:00:39, Info
2020-07-28 14:00:40, Info
2020-07-28 14:00:40, Info
2020-07-28 14:00:41, Info
2020-07-28 14:00:41, Info
2020-07-28 14:00:42, Info
2020-07-28 14:00:42, Info
2020-07-28 14:00:43, Info
2020-07-28 14:00:44, Info
2020-07-28 14:00:44, Info
2020-07-28 14:00:44, Info
2020-07-28 14:00:46, Info
2020-07-28 14:00:46, Info
2020-07-28 14:00:46, Info
2020-07-28 14:00:48, Info
2020-07-28 14:00:48, Info
2020-07-28 14:00:49, Info
2020-07-28 14:00:49, Info
2020-07-28 14:00:50, Info
2020-07-28 14:00:51, Info
2020-07-28 14:00:51, Info
2020-07-28 14:00:51, Info
2020-07-28 14:00:52, Info
2020-07-28 14:00:52, Info
2020-07-28 14:00:52, Info
2020-07-28 14:00:52, Info
2020-07-28 14:02:55, Info

CSI 0000025c [SR] Beginning Verify and Repair transaction
CSI 0000025d [SR] Verify complete
CSI 0000025e [SR] Verifying 100 components
CSI 0000025f [SR] Beginning Verify and Repair transaction
CSI 00000260 [SR] Verify complete
CSI 00000261 [SR] Verifying 100 components
CSI 00000262 [SR] Beginning Verify and Repair transaction
CSI 00000263 CSIPERF - FilePI Queue 115ms
CSI 00000264 CSIPERF - FilePI Queue 130ms
CSI 00000265 [SR] Verify complete
CSI 00000266 [SR] Verifying 100 components
CSI 00000267 [SR] Beginning Verify and Repair transaction
CSI 00000268 CSIPERF - FilePI Queue 104ms
CSI 00000269 [SR] Verify complete
CSI 0000026a [SR] Verifying 100 components
CSI 0000026b [SR] Beginning Verify and Repair transaction
CSI 0000026c CSIPERF - FilePI Queue 157ms
CSI 0000026d [SR] Verify complete
CSI 0000026e [SR] Verifying 100 components
CSI 0000026f [SR] Beginning Verify and Repair transaction
CSI 00000270 CSIPERF - FilePI Queue 414ms
CSI 00000271 [SR] Verify complete
CSI 00000272 [SR] Verifying 100 components
CSI 00000273 [SR] Beginning Verify and Repair transaction
CSI 00000274 CSIPERF - FilePI Queue 142ms
CSI 00000275 [SR] Verify complete
CSI 00000276 [SR] Verifying 100 components
CSI 00000277 [SR] Beginning Verify and Repair transaction
CSI 00000278 CSIPERF - FilePI Queue 109ms
CSI 00000279 CSIPERF - FilePI Queue 123ms
CSI 0000027a [SR] Verify complete
CSI 0000027b [SR] Verifying 33 components
CSI 0000027c [SR] Beginning Verify and Repair transaction
CSI 0000027d [SR] Verify complete
CSI 0000027e [SR] Repairing 0 components
CSI 0000027f [SR] Beginning Verify and Repair transaction
CSI 00000280 [SR] Repair complete
CBS Trusted Installer is shutting down because: SHUTDOWN_REASON_AUTOSTOP



Control Panel > Security & Maintenance

Error Checking (WINDOWS (C:))

You don't need to scan this drive

We haven't found any errors on this drive. You can still scan the drive for errors if you want.

→ Scan drive

You can keep using the drive during the scan. If errors are found, you can decide if you want to fix them.

Cancel

WINDOWS (C:) Properties

Security

Previous Versions

Quota

General

Tools

Hardware

Sharing

Error checking



This option will check the drive for file system errors.

Check

Optimize and defragment drive



Optimizing your computer's drives can help it run more efficiently.

Optimize

OK

Cancel

Apply

Disk Properties

Error Checking (WINDOWS (C:))

Your drive was successfully scanned

Windows successfully scanned the drive. No errors were found.

Close

Show Details

Event Viewer

File Action View Help

Event Viewer i

Custom V

Windows

Applic

Securit

Setup

System

Forward

Application

Subscripti

Application Number of events: 41,162

Filtered: Number of events: 1

Level	Date and Time	Source	Event ID	Task Categ...
Information	7/28/2020 2:51:10 PM	Chkdsk	26226	None

Event 26226, Chkdsk:

General Details

Chkdsk was executed in scan mode on a volume snapshot.

Checking file system on C:
Volume label is WINDOWS.

Stage 1: Examining basic file system structure ...
948480 file records processed.
13429 large file records processed.
Stage 2: Examining file name linkage ...
1203 reparse records processed.
1203 reparse records processed.

File verification completed.
0 bad file records processed.

1201540 index entries processed.
Index verification completed.

Stage 3: Examining security descriptors ...
Security descriptor verification completed.
126531 data files processed.
39830232 USN bytes processed.

CHKDSK is verifying Usn Journal...
Usn Journal verification completed.

Windows has scanned the file system and found no problems.
No further action is required.

964329471 KB total disk space.
558008904 KB in 642292 files.
434904 KB in 126532 indexes.
1095515 KB in use by the system.
65536 KB occupied by the log file.
404790148 KB available on disk.

4096 bytes in each allocation unit.
241082367 total allocation units on disk.
101197537 allocation units available on disk.

Stage 1: Examining basic file system structure ...

Log Name: Application
Source: Chkdsk
Event ID: 26226
Level: Information
User: N/A
OpCode:
More Information: [Event Log Online Help](#)

Logged: 7/28/2020 2:51:10 PM
Task Category: None
Keywords: Classic
Computer: DESKTOP-VQQR2K

Actions

Application

Open ...

Creat...

Impor...

Clear ...

Filter ...

Clear ...

Prope...

Find...

Save ...

Attac...

Save F...

View

Refresh

Help

Event 2622...

Event ...

Attac...

Copy

Save S...

Refresh

Help

Event Viewer

File Action View Help

Event Viewer

> Custom V

Windows

Applic

Securit

Setup

System

Forwar

> Application

Subscripti

Application Number of events: 41,162

Filtered: Number of events: 1

Level	Date and Time	Source	Event ID	Task Categ...
Information	7/28/2020 2:51:10 PM	Chkdsk	26226	None

Event 26226, Chkdsk

General Details

☒ Friendly View ☐ XML View

+ System

- EventData

Checking file system on C: Volume label is WINDOWS. Stage 1: Examining basic file system structure ... 948480 file records processed. File verification completed. 13429 large file records processed, 0 bad file records processed. Stage 2: Examining file name linkage ... 1203 reparse records processed. 1201540 index entries processed. Index verification completed. 1203 reparse records processed. Stage 3: Examining security descriptors ... Security descriptor verification completed. 126531 data files processed. CHKDSK is verifying Usn Journal... 39830232 USN bytes processed. Usn Journal verification completed. Windows has scanned the file system and found no problems. No further action is required. 964329471 KB total disk space. 558008904 KB in 642292 files. 434904 KB in 126532 indexes. 1095515 KB in use by the system. 65536 KB occupied by the log file. 404790148 KB available on disk. 4096 bytes in each allocation unit. 241082367 total allocation units on disk. 101197537 allocation units available on disk. -----

Stage 1: Examining basic file system structure ... Stage 2: Examining file name linkage ... Stage 3: Examining security descriptors ... 00790E00F3B20B00CD3B150000000000A040000A900000000000000000000000000000000

Binary data:

In Words

```
0000: 000E7900 000BB2F3 00153BCD 00000000
0010: 0000040A 000000A9 00000000 00000000
```

In Bytes

```
0000: 00 79 0E 00 F3 B2 0B 00 .y..ó²..
0008: CD 3B 15 00 00 00 00 00 i:.....
0010: 0A 04 00 00 A9 00 00 00 ....@...
0018: 00 00 00 00 00 00 00 00 .....
```

Actions

Application

Open ...

Creat...

Impor...

Clear ...

Filter ...

Clear ...

Prope...

Find...

Save ...

Attac...

Save F...

View

Refresh

Help

Event 2622...

Event ...

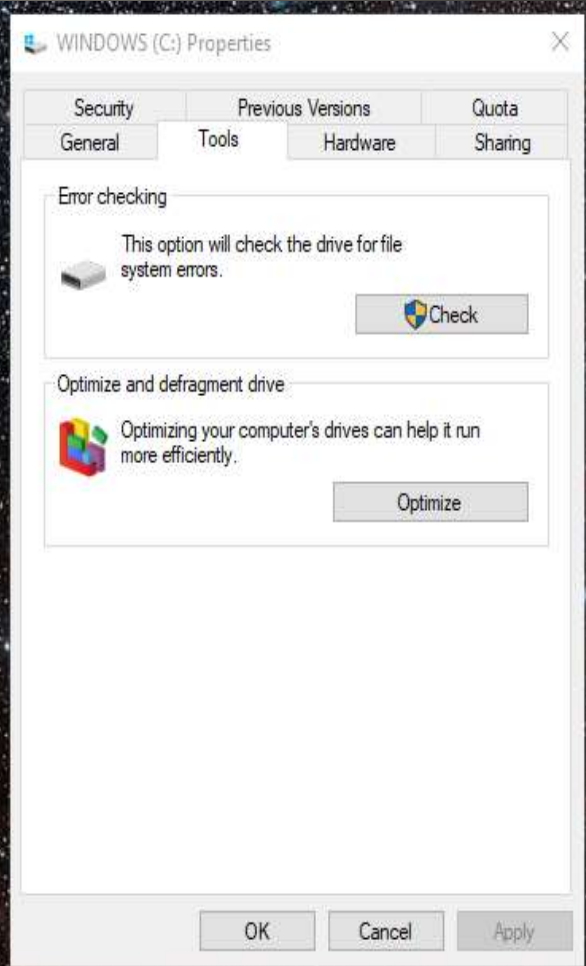
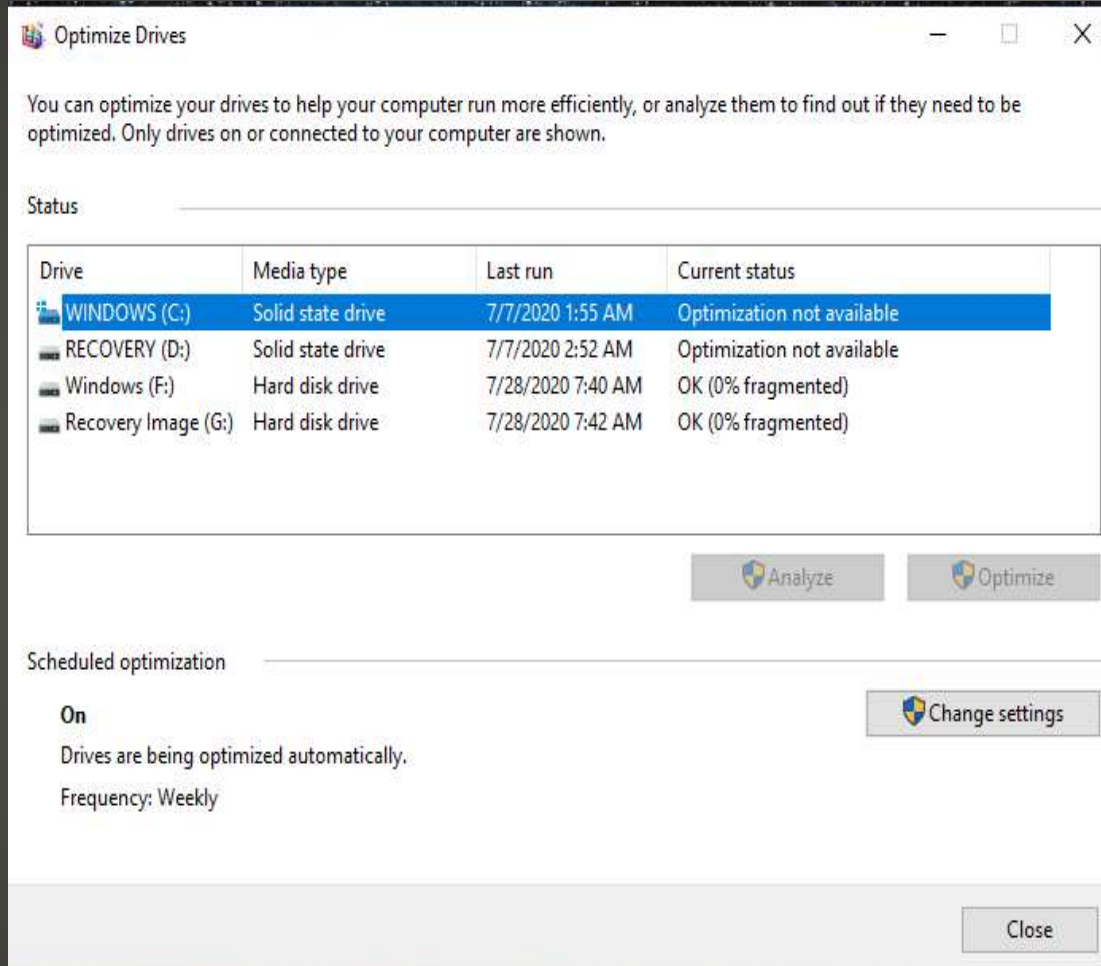
Attac...

Copy

Save S...

Refresh

Help



Hard drive or SSD

- More information
- Computer Club Wiki



chkdsk

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

