



Alan German & Chris Taylor
Ottawa PC Users' Group

March 16, 2022

Follow-up

Disk Cleanup

Why does the Disk Cleanup tool's Windows Update Cleanup take so long and consume so much CPU?

Raymond Chen*

The Old New Thing



<https://devblogs.microsoft.com/oldnewthing/20200922-00/?p=104252>

** Raymond has been involved in the evolution of Windows for more than 25 years*

Windows Update Cleanup option is doing more than just deleting files:

- (1) It performs a **deep clean on Windows' system components** (the equivalent of: *dism /Online /Cleanup-Image /StartComponentCleanup*)*
- (2) It **compresses uncompressed operating system files** (compression algorithm is resource intensive whereas decompression is fast)

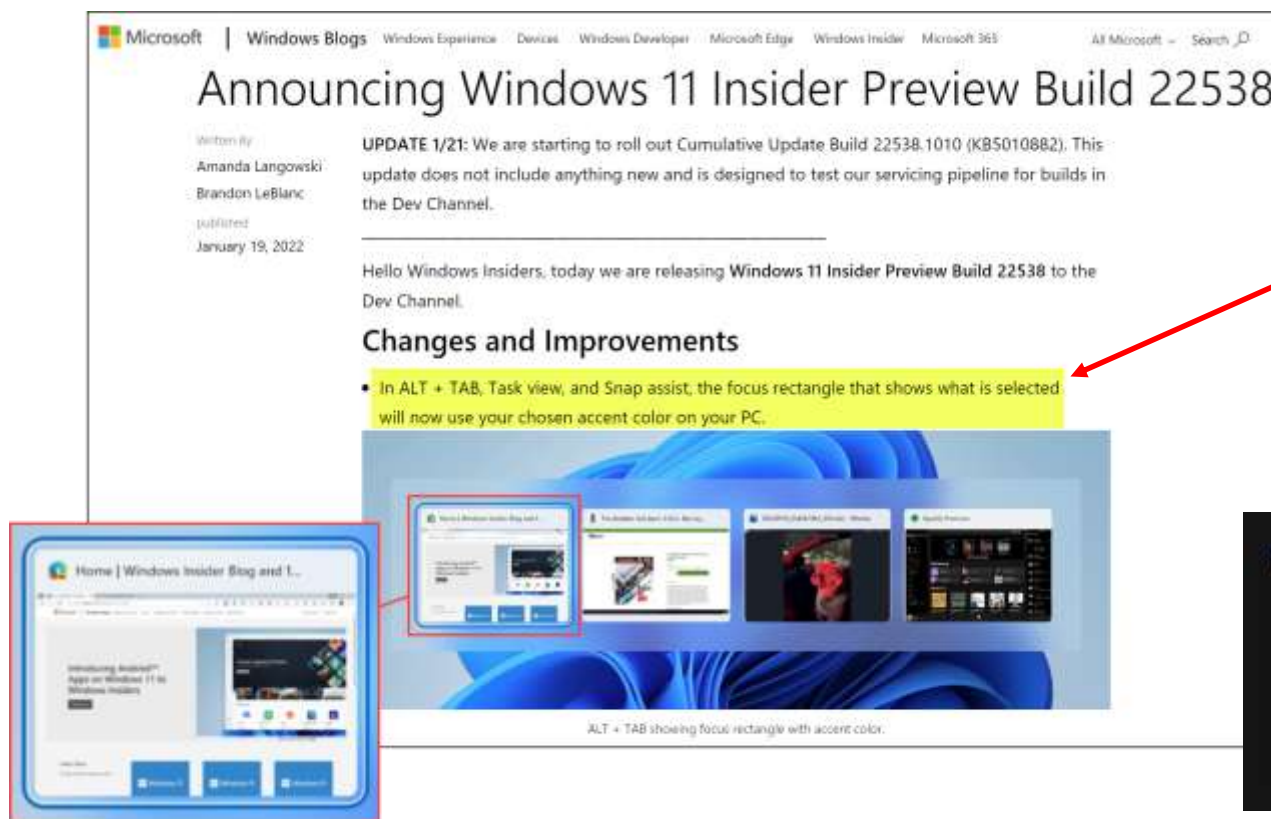
“...it's trying very hard to free up disk space... that's presumably why you are running the Disk Cleanup tool”

** Deployment image servicing and management tool*

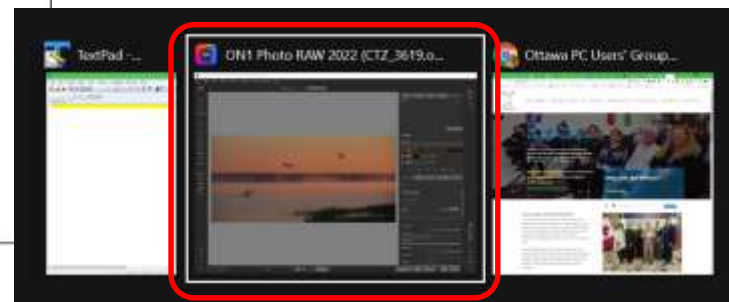
Share

Chris's rants

- Last rant: Microsoft hides scroll bars (2022-02-23)
- Today's rant: accent colour



In ALT + TAB, Task view, and Snap assist, the focus rectangle that shows what is selected will now use your chosen accent color on your PC.



<https://blogs.windows.com/windows-insider/2022/01/19/announcing-windows-11-insider-preview-build-22538/>

Used to be a white rectangle (at least in Windows 10...)

Share

Accent colour

Settings | Personalisation | Colours | Choose your accent colour
Title bars and window borders

User choice of colour for

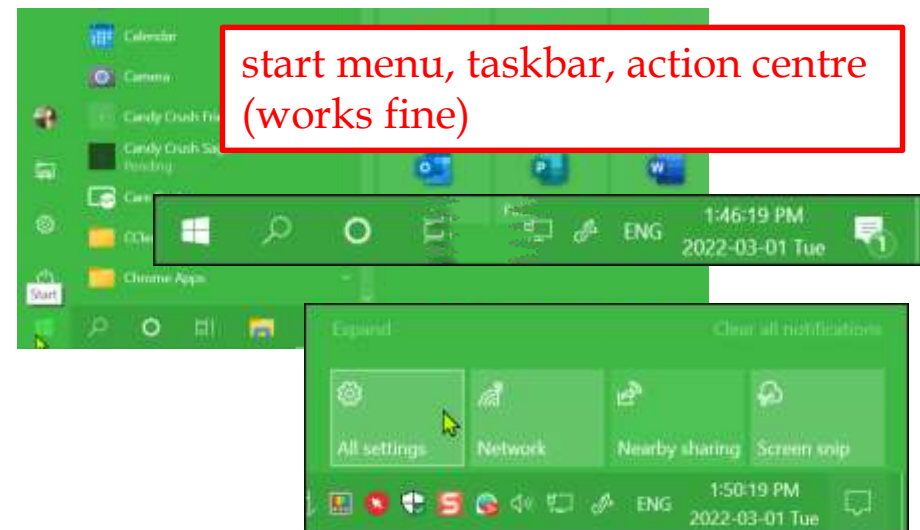
deselect

Select a colour
• e.g. green

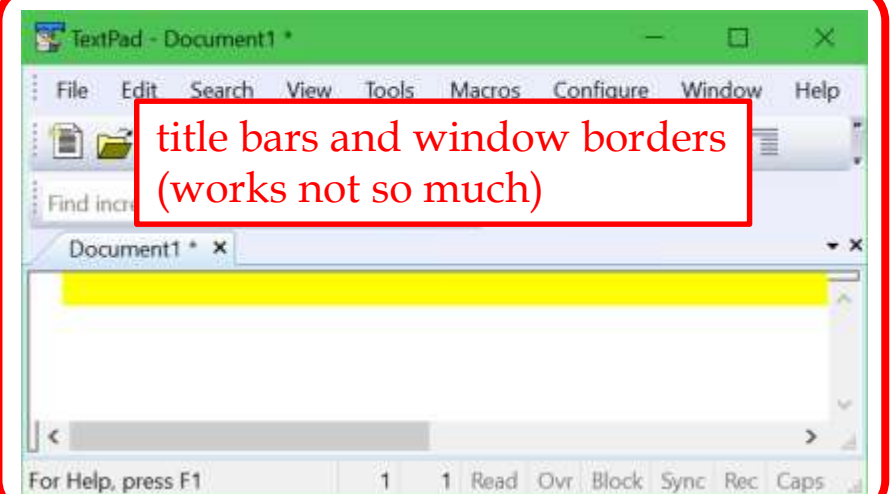
select



start menu, taskbar, action centre
(works fine)



title bars and window borders
(works not so much)

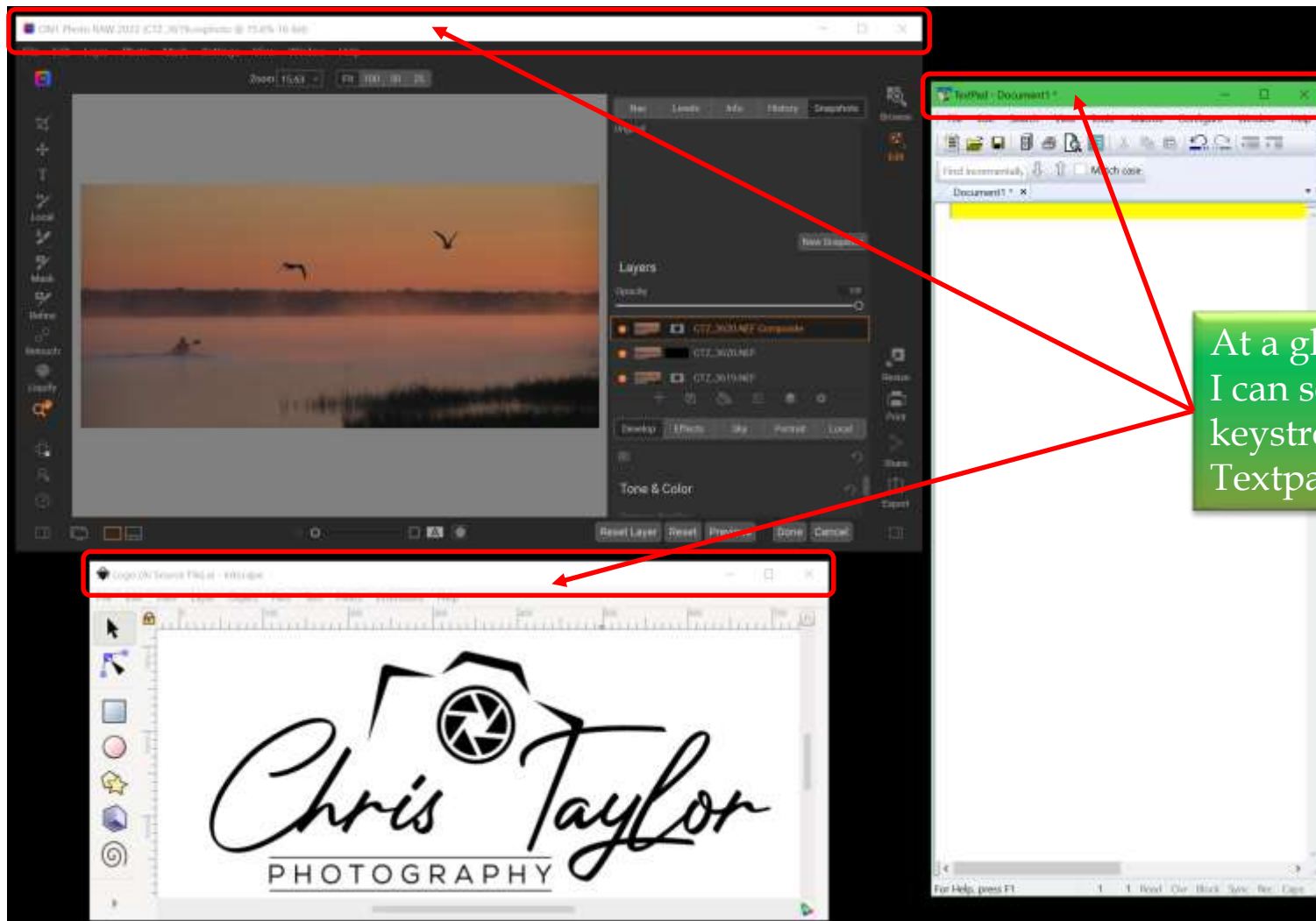


Share

Accent colour – title bars

This is how title bars should be

- Window with focus: **accent colour**
- Windows without focus: **white**



At a glance:
I can see Textpad has the focus
keystrokes will go into
Textpad

Share

Polite programs

Windows without focus have white title bars

ON1 Photo RAW

TreeSize

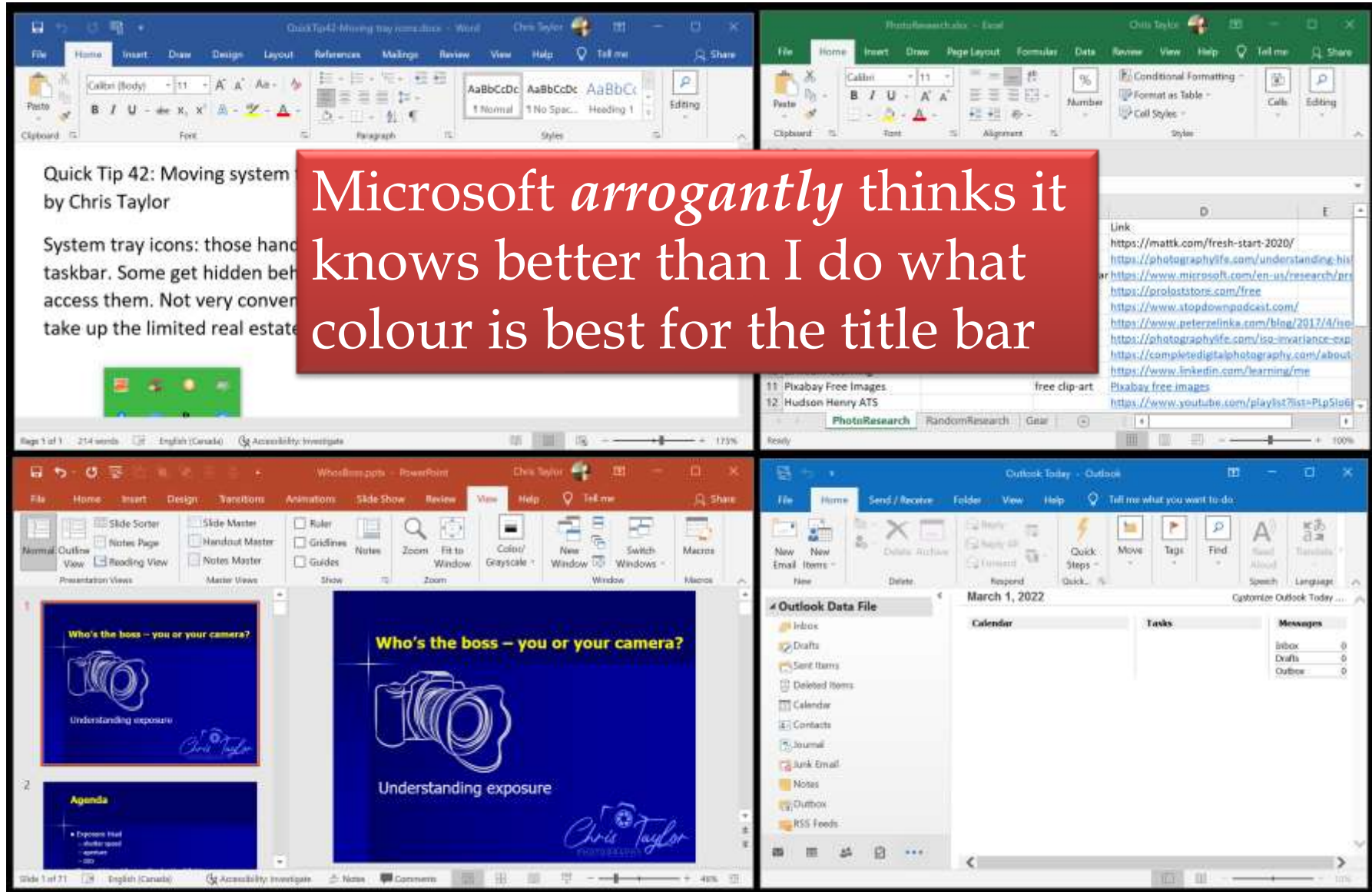
LibreOffice

SUMo

Share

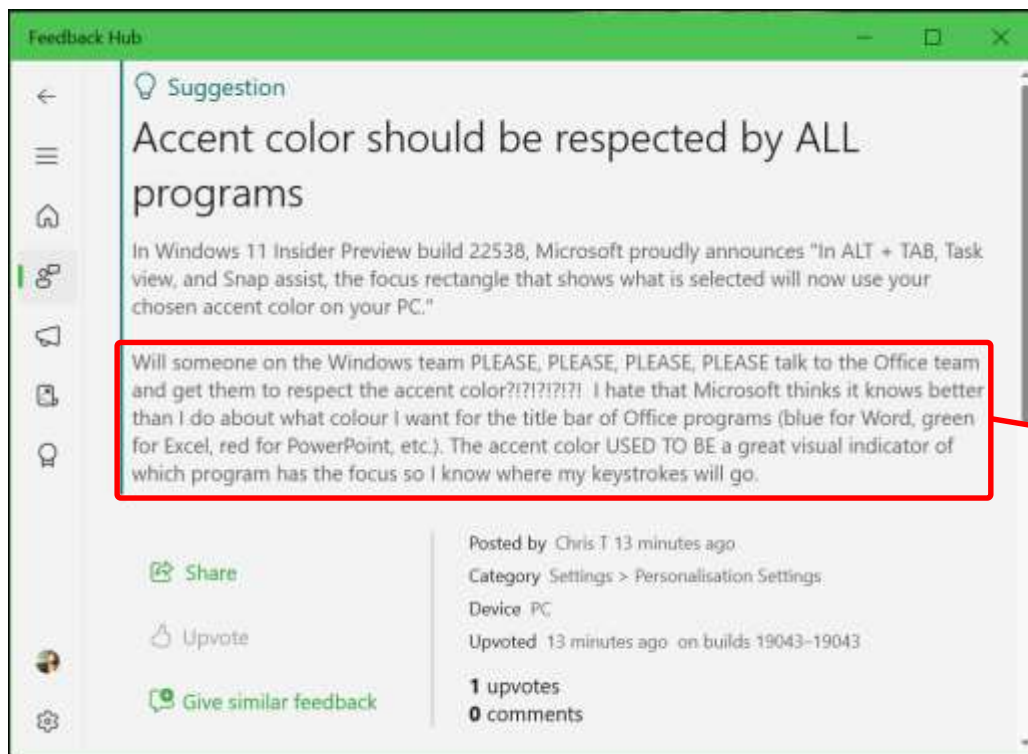
Microsoft Office hijacks *accent colour* in title bars

Microsoft *arrogantly* thinks it knows better than I do what colour is best for the title bar



Share

Feedback Hub *suggestion*



Will someone on the Windows team PLEASE, PLEASE, PLEASE, PLEASE talk to the Office team and get them to respect the accent color?!?!?!?!?

I hate that Microsoft thinks it knows better than I do about what colour I want for the title bar of Office programs (blue for Word, green for Excel, red for PowerPoint, etc.).

The accent color USED TO BE a great visual indicator of which program has the focus so I know where my keystrokes will go.

If you agree, you can upvote:
<https://aka.ms/AAg2a3b>

Microsoft is not the only offender...

Share

Semi-polite programs

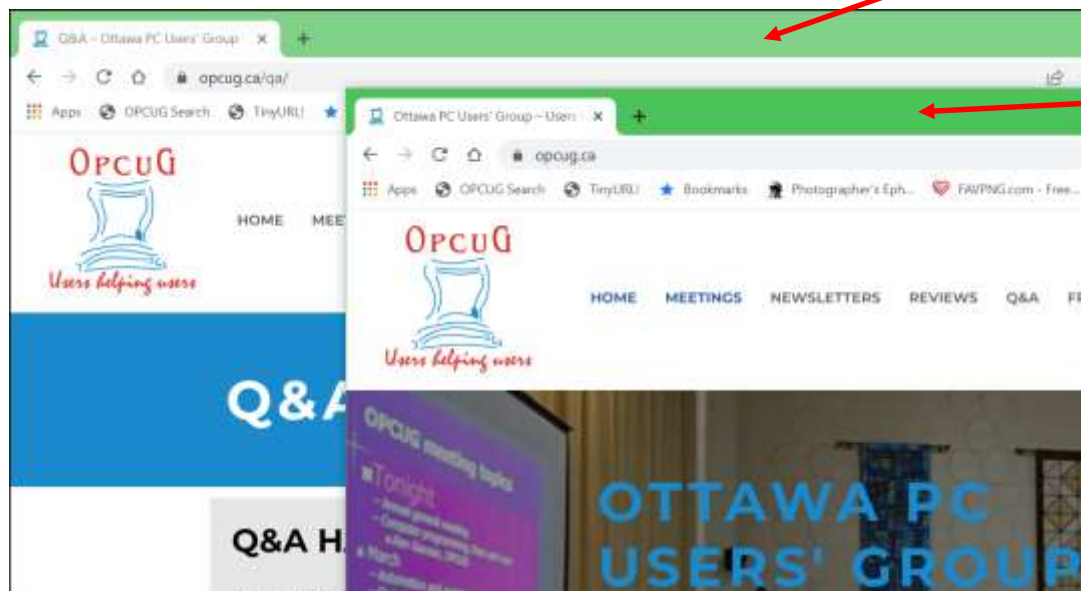
Window with focus follows chosen accent colour

Window without focus paler version of window with focus

Google Chrome

Window without focus

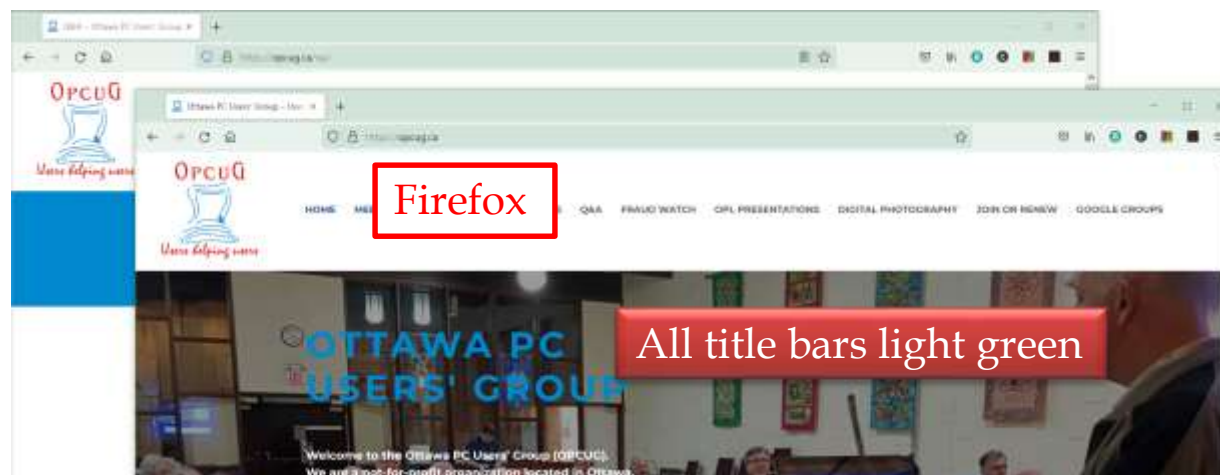
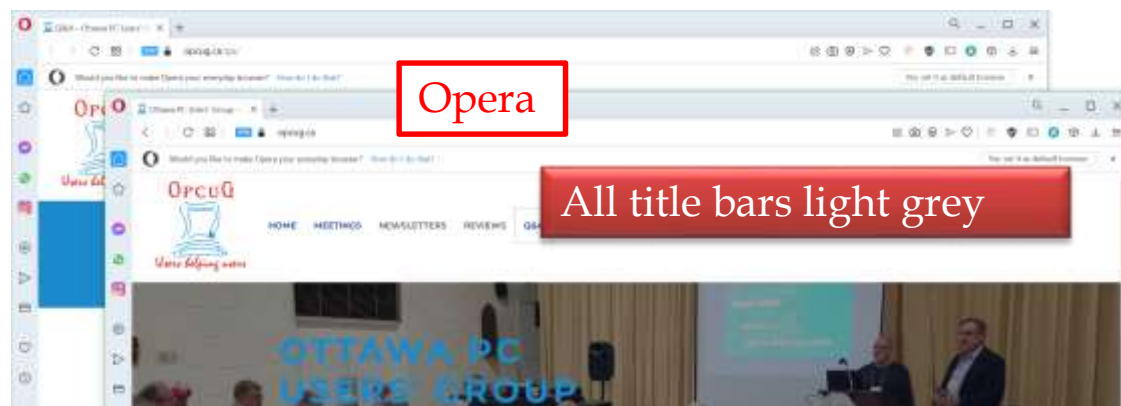
Window with focus



Microsoft Edge does this too
...this week

Share

Impolite programs



Share

SmartApps

- Useful apps for Android smartphones and tablets
- What are your favourites?



SuggestionBox@opcug.ca



Can also be a program for the PC

Share

Removing duplicate photos



<https://www.duplicatecleaner.com>

Awesome Duplicate Photo Finder

File Settings Help Donate

M:\Photos_Book04\Scotland_gold\Alan\
C:\Scotland_photos\Alan\

Folders:



Start Search

☐ Scan Subdirectories



JPG 4160 x 3120 4.15 MB



move browse delete

Similarity:

100%



JPG 4160 x 3120 4.15 MB



move browse delete

Files scanned: 215 Duplicates found: 93

Original Image

M:\Photos_Book04\Scotland_gold\Alan\IMG_20190720_164030.jpg
M:\Photos_Book04\Scotland_gold\Alan\IMG_20190720_165136.jpg
M:\Photos_Book04\Scotland_gold\Alan\IMG_20190720_165305.jpg
M:\Photos_Book04\Scotland_gold\Alan\IMG_20190720_165420.jpg

Duplicate Image

C:\Scotland_photos\Alan\scotland_alan_001.jpg
C:\Scotland_photos\Alan\scotland_alan_002.jpg
C:\Scotland_photos\Alan\scotland_alan_003.jpg
C:\Scotland_photos\Alan\scotland_alan_004.jpg

Similarity

100
100
100
100



Search criteria
What to findScan location
Where to look

Scan location



More options...



Help



Start scan



Upgrade to Pro

Available folders

C:\Scotland_photos\Alan

- Intel
- Moto
- PerfLogs
- Program Files
- Program Files (x86)
- Scotland_photos
 - Alan
 - Carol
 - DCIM
 - Eva
- Search
- Temp
- Users
- Windows
- DataDisk (D:\)



Folders to search

Folder name	Status	Protected	Scan subfo...	
Windows 10 (C:\) Fixed NTFS - 139 GB (5% Free)				Properties ^
C:\Scotland_photos\Alan\	Included	No	Yes	
My Book04 (M:\) Fixed NTFS - 3.64 TB (10% Free)				Properties ^
M:\Photos_Book04\Scotland...	Included	No	Yes	

Refresh folders ☐ Show hiddenClear list Select Folder... Enter folder name... Refresh list ☒ Group drives



Search criteria

What to find



Scan location

Where to look



Search criteria



More options...



Help



Start scan



Upgrade to Pro



Regular mode



Image mode



Audio mode



Find files with:

☒ Same content

Match files by their exact content.

☐ Ignore content

Ignore the content of the files, use another criteria specified below.



More duplicate options

☐ Same file name ☐ Same file extension☐ Same size☐ Same created date/time ☐ Match date only☐ Same modified date/time ☐ Match date only

Search filters



File filter

Included: *.*

Excluded:

Select

☐ Apply exclusions to folder names too

File sizes

☒ Any size Minimum file size 0 MB

Maximum file size 100 MB

File dates

☒ Any date☐ Created Between 2022-02-28☐ Modified and 2022-02-28

Advanced search options



- ☐ Exclude zero size files from the duplicate list
- ☒ Don't Follow NTFS Mountpoints and Junctions
- ☐ Count Hard-links in file
- ☐ Exclude Hard-linked files from duplicate List



Search criteria

What to find



Scan location

Where to look



Search criteria



More options...



Help



Start scan



Upgrade to Pro



Regular mode



Image mode



Audio mode



Find files with:

☒ Same content

Match files by their exact content.

☐ Ignore content

Ignore the content of the files, use another criteria specified below.



More duplicate options

☐ Same file name ☐ Same file extension☐ Same size☐ Same created date/time ☐ Match date only☐ Same modified date/time ☐ Match date only

File filter

Included: *.*

Excluded:

Select

☐ Apply exclusions to folder names too

File sizes

☒ Any size Minimum file size 0 MB

Maximum file size 100 MB

File dates

☒ Any date☐ Created Between 2022-02-28☐ Modified and 2022-02-28

Advanced search options



- ☐ Exclude zero size files from the duplicate list
- ☒ Don't Follow NTFS Mountpoints and Junctions
- ☐ Count Hard-links in file
- ☐ Exclude Hard-linked files from duplicate List

Search criteria
What to findScan location
Where to lookDuplicate files
186 Files

Duplicate files



File removal...



Image preview

Quick columns



Upgrade to Pro

No files in the list are currently marked.

Quick filters: Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time



Scan complete

Scan complete

186 hashes and 186 quick-hashes calculated.

Scan details

Scanning: Regular mode
- Same content (MD5)

Folders to search



215/215 files scanned (1000 MB)



93 groups of duplicates



186 files have duplicates (869 MB)



Total time taken: 00:00:10



Next mark the files you want to delete. Click on the checkboxes or use the Selection Assistant.

Close

	Group	Size
Alan\	1	4.15 M
Scotland_gold\Al...	1	4.15 M
Alan\	2	4.31 M
Scotland_gold\Al...	2	4.31 M
Alan\	3	4.72 M
Scotland_gold\Al...	3	4.72 M
Alan\	4	5.04 M
Scotland_gold\Al...	4	5.04 M
Alan\	5	3.45 M
Scotland_gold\Al...	5	3.45 M
Alan\	6	3.87 M
Scotland_gold\Al...	6	3.87 M
Alan\	7	4.54 M
Scotland_gold\Al...	7	4.54 M
Alan\	8	5.05 M
Scotland_gold\Al...	8	5.05 M
Alan\	9	5.84 M
Scotland_gold\Al...	9	5.84 M
Alan\	10	1.67 M



Search criteria

What to find



Scan location

Where to look



Duplicate files

186 Files



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro

No files in the list are currently marked.

Quick filters: Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

File Name	Folder	Group	Size
☐ scotland_alan_001.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☐ IMG_20190720_164030.jpg	M:\Photos_Book04\Scotland_gold\Al...	1	4.15 M
☐ scotland_alan_002.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☐ IMG_20190720_165136.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐ scotland_alan_003.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☐ IMG_20190720_165305.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐ scotland_alan_004.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☐ IMG_20190720_165420.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	5.04 M
☐ scotland_alan_005.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☐ IMG_20190721_121407.jpg	M:\Photos_Book04\Scotland_gold\Al...	5	3.45 M
☐ scotland_alan_006.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☐ IMG_20190721_121554.jpg	M:\Photos_Book04\Scotland_gold\Al...	6	3.87 M
☐ scotland_alan_007.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☐ IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	7	4.54 M
☐ scotland_alan_008.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☐ IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	8	5.05 M
☐ scotland_alan_009.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☐ IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	9	5.84 M
☐ scotland_alan_010.jpg	C:\Scotland_photos\Alan\	10	4.67 M

Search criteria
What to findScan location
Where to lookDuplicate files
186 Files

Thumbnail view



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro

No files in the list are currently marked.

Quick filters: Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

Group 1 : 2 File(s) shown (8.31 MB)



IMG_20190720_164030.jpg



scotland_alan_001.jpg

Group 2 : 2 File(s) shown (8.62 MB)



IMG_20190720_165136.jpg



scotland_alan_002.jpg

Group 3 : 2 File(s) shown (9.44 MB)





Search criteria

What to find



Scan location

Where to look



Duplicate files

186 Files



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro

No files in the list are currently marked.

Quick filters: Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only **Mark by group**

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

File Name	Folder	Group	Size
☐ scotland_alan_001.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☐ IMG_20190720_164030.jpg	M:\Photos_Book04\Scotland_gold\Al...	1	4.15 M
☐ scotland_alan_002.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☐ IMG_20190720_165136.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐ scotland_alan_003.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☐ IMG_20190720_165305.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐ scotland_alan_004.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☐ IMG_20190720_165420.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	5.04 M
☐ scotland_alan_005.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☐ IMG_20190721_121407.jpg	M:\Photos_Book04\Scotland_gold\Al...	5	3.45 M
☐ scotland_alan_006.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☐ IMG_20190721_121554.jpg	M:\Photos_Book04\Scotland_gold\Al...	6	3.87 M
☐ scotland_alan_007.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☐ IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	7	4.54 M
☐ scotland_alan_008.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☐ IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	8	5.05 M
☐ scotland_alan_009.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☐ IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	9	5.84 M
☐ scotland_alan_010.jpg	C:\Scotland_photos\Alan\	10	4.67 M



Search criteria

What to find



Scan location

Where to look



Duplicate files

186 Files



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro

93 files marked for deletion, total size 434 MB

Quick filters:

Show all

Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

File Name	Folder	Group	Size
☐ scotland_alan_001.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☒ IMG_20190720_164030.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	4.15 M
☐ scotland_alan_002.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☒ IMG_20190720_165136.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐ scotland_alan_003.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☒ IMG_20190720_165305.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐ scotland_alan_004.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☒ IMG_20190720_165420.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	5.04 M
☐ scotland_alan_005.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☒ IMG_20190721_121407.jpg	M:\Photos_Book04\Scotland_gold\Al...	5	3.45 M
☐ scotland_alan_006.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☒ IMG_20190721_121554.jpg	M:\Photos_Book04\Scotland_gold\Al...	6	3.87 M
☐ scotland_alan_007.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☒ IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	7	4.54 M
☐ scotland_alan_008.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☒ IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	8	5.05 M
☐ scotland_alan_009.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☒ IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	9	5.84 M
☐ scotland_alan_010.jpg	C:\Scotland_photos\Alan\	10	4.67 M



Search criteria

What to find



Scan location

Where to look



Duplicate files

186 Files



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro



93 files marked for deletion, total size 424 MB

Quick filters:

Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

File Name	Folder	Group	Size
☐ scotland_alan_001.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☒ IMG_20190720_164030.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	4.15 M
☐ scotland_alan_002.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☒ IMG_20190720_165136.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐ scotland_alan_003.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☒ IMG_20190720_165305.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐ scotland_alan_004.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☒ IMG_20190720_165420.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	5.04 M
☐ scotland_alan_005.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☒ IMG_20190721_121407.jpg	M:\Photos_Book04\Scotland_gold\Al...	5	3.45 M
☐ scotland_alan_006.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☒ IMG_20190721_121554.jpg	M:\Photos_Book04\Scotland_gold\Al...	6	3.87 M
☐ scotland_alan_007.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☒ IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	7	4.54 M
☐ scotland_alan_008.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☒ IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	8	5.05 M
☐ scotland_alan_009.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☒ IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	9	5.84 M
☐ scotland_alan_010.jpg	C:\Scotland_photos\Alan\	10	4.67 M



Search criteria

What to find



Scan location

Where to look



Duplicate files

186 Files



Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro



93 files marked for deletion, total size 434 MB

Quick filters:

Show all



Other filters: No filters



Always sort by group first



Selection assistant



Undo last select operation



Groups with all files marked



Mark by Location...



Mark by text pattern...



Invert marked files



Unmark all



Options

☐ Work only on currently selected files☐ Work on unmarked groups

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group



Mark by Modified Date/Time

Newest files in each group

Oldest files in each group



Mark by created date/time



Delete, move, rename or hard-link files



Duplicate files

93 file(s) marked for deletion, total size 434 MB



Skip problem files



Remove empty folders



Delete files



Delete to the Recycle Bin (Non-zipped files only)



Via Windows Shell

Delete files

Close

File Name	Folder	Group	Size
☐ JPG scotland_alan_007.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☒ JPG IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	4.15 M
☐ JPG scotland_alan_008.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☒ JPG IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐ JPG scotland_alan_009.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☒ JPG IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐ JPG scotland_alan_010.jpg	C:\Scotland_photos\Alan\	4	5.04 M
		4	5.04 M
		5	3.45 M
		5	3.45 M
		6	3.87 M
		6	3.87 M
		7	4.54 M
		7	4.54 M
		8	5.05 M
		8	5.05 M
		9	5.84 M
		9	5.84 M
		10	4.67 M

Search criteria
What to findScan location
Where to lookDuplicate files
186 Files

Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro



93 files marked for deletion, total size 434 MB

Quick filters:

Show all



Other filters:

No filters



Always sort by group first



Selection assistant



Undo last select operation



Groups with all files marked



Mark by Location...



Mark by text pattern...



Invert marked files



Unmark all



Options

☐ Work only on currently selected files☐ Work on unmarked groups

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group



Mark by Modified Date/Time

Newest files in each group

Oldest files in each group



Mark by created date/time

File Name

Folder

Group

Size



Delete, move, rename or hard-link files

Duplicate file

Delete files

☒ Delete to the Recycle Bin (Non-destructive)☒ Via Windows Shell

Delete files



About to delete 93 file(s). Are you sure?

Yes

No

Close

☐	scotland_alan_007.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☒	IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	4.15 M
☐	scotland_alan_008.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☒	IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Al...	2	4.31 M
☐	scotland_alan_009.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Al...	3	4.72 M
☐	scotland_alan_010.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☒	scotland_alan_011.jpg	M:\Photos_Book04\Scotland_gold\Al...	4	5.04 M
☐	scotland_alan_012.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☒	scotland_alan_013.jpg	M:\Photos_Book04\Scotland_gold\Al...	5	3.45 M
☐	scotland_alan_014.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☒	scotland_alan_015.jpg	M:\Photos_Book04\Scotland_gold\Al...	6	3.87 M
☐	scotland_alan_016.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☒	scotland_alan_017.jpg	M:\Photos_Book04\Scotland_gold\Al...	7	4.54 M
☐	scotland_alan_018.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☒	scotland_alan_019.jpg	M:\Photos_Book04\Scotland_gold\Al...	8	5.05 M
☐	scotland_alan_020.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☒	scotland_alan_021.jpg	M:\Photos_Book04\Scotland_gold\Al...	9	5.84 M
☐	scotland_alan_022.jpg	C:\Scotland_photos\Alan\	10	4.67 M

Search criteria
What to findScan location
Where to lookDuplicate files
186 Files

Duplicate files



File removal...



Image preview

Quick columns



View



Upgrade to Pro

93 files marked for deletion, total size 434 MB

Quick filters:

Show all



Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected files☐ Work on unmarked groups

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

Oldest files in each group

Mark by created date/time

File Name

Folder

Group

Size

Delete, move, rename or hard-link files

Duplicate files



Delete files

☒ Delete to the Recycle Bin (Non-zipped files)☒ Via Windows Shell

Finished deleting files.



93 file(s) have been deleted.

OK

Close

☐	scotland_alan_007.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☒	IMG_20190721_121704.jpg	M:\Photos_Book04\Scotland_gold\Alan\	4	4.15 M
☐	scotland_alan_008.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☒	IMG_20190721_121930.jpg	M:\Photos_Book04\Scotland_gold\Alan\	2	4.31 M
☐	scotland_alan_009.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	3	4.72 M
☐	scotland_alan_010.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	4	5.04 M
☐	scotland_alan_011.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	5	3.45 M
☐	scotland_alan_012.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	6	3.87 M
☐	scotland_alan_013.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	7	4.54 M
☐	scotland_alan_014.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	8	5.05 M
☐	scotland_alan_015.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☒	IMG_20190721_121944.jpg	M:\Photos_Book04\Scotland_gold\Alan\	9	5.84 M
☐	scotland_alan_016.jpg	C:\Scotland_photos\Alan\	10	4.67 M

Duplicate Cleaner Free 4.1.2

File

View

Options

Help

Search criteria

What to find

Scan location

Where to look

Duplicate files

93 Files

Duplicate files

File removal...

Image preview

Quick columns

View

?

Upgrade to Pro

No files in the list are currently marked.

Quick filters: Show all

Other filters: No filters

☒ Always sort by group first

Selection assistant

Undo last select operation

Groups with all files marked

Mark by Location...

Mark by text pattern...

Invert marked files

Unmark all

Options

☐ Work only on currently selected rows

☐ Work on unmarked groups only

Mark by group

All but one file in each group

Mark all but one in the same group and folder

Only one file in each group

Mark by Modified Date/Time

Newest files in each group

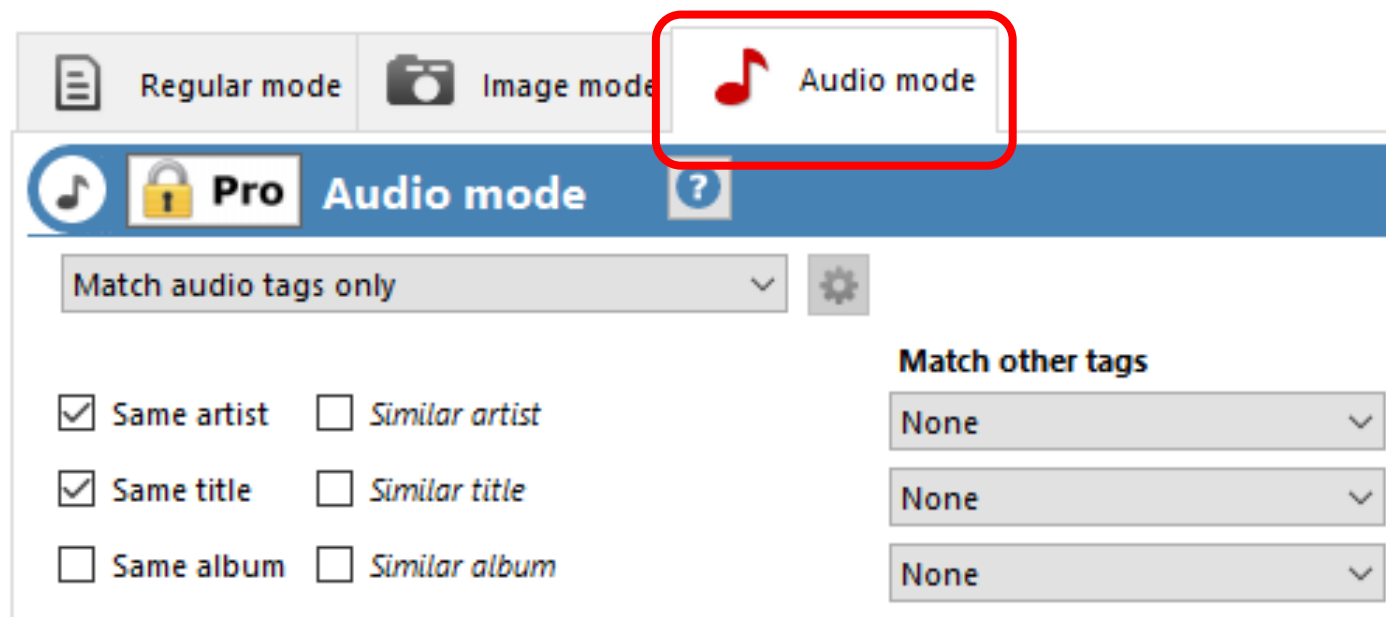
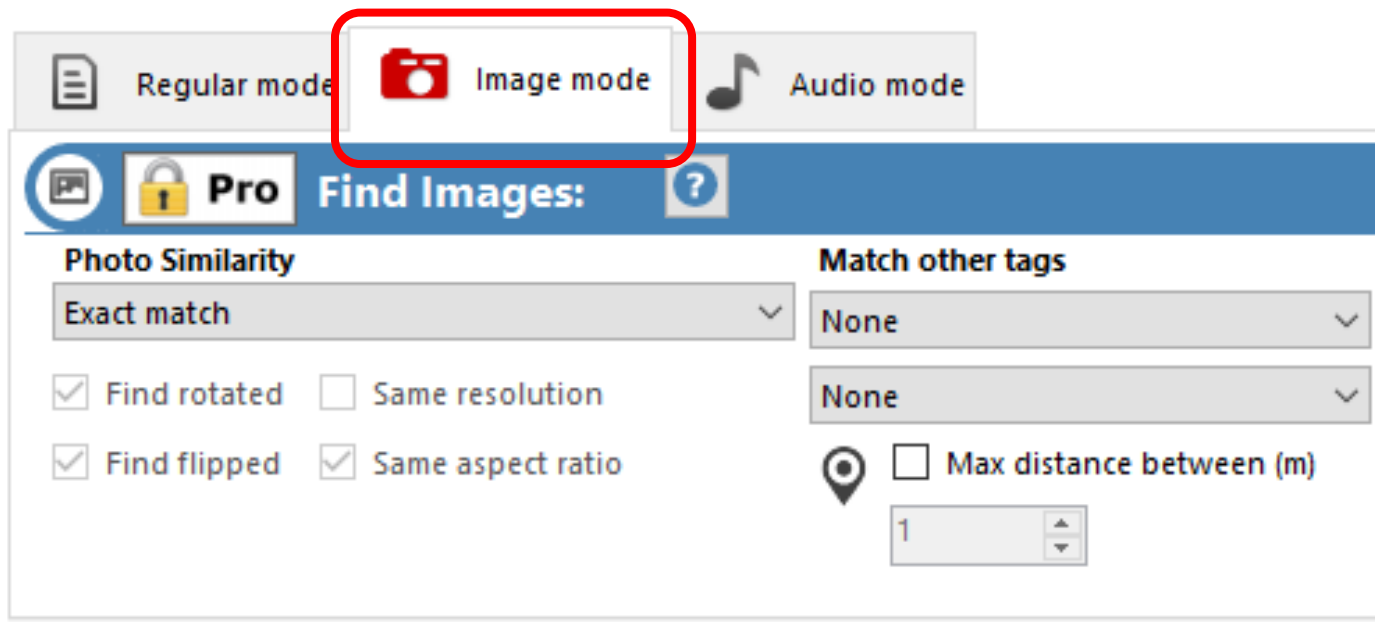
Oldest files in each group

Mark by created date/time

File Name	Folder	Group	Size
☐ scotland_alan_001.jpg	C:\Scotland_photos\Alan\	1	4.15 M
☐ scotland_alan_002.jpg	C:\Scotland_photos\Alan\	2	4.31 M
☐ scotland_alan_003.jpg	C:\Scotland_photos\Alan\	3	4.72 M
☐ scotland_alan_004.jpg	C:\Scotland_photos\Alan\	4	5.04 M
☐ scotland_alan_005.jpg	C:\Scotland_photos\Alan\	5	3.45 M
☐ scotland_alan_006.jpg	C:\Scotland_photos\Alan\	6	3.87 M
☐ scotland_alan_007.jpg	C:\Scotland_photos\Alan\	7	4.54 M
☐ scotland_alan_008.jpg	C:\Scotland_photos\Alan\	8	5.05 M
☐ scotland_alan_009.jpg	C:\Scotland_photos\Alan\	9	5.84 M
☐ scotland_alan_010.jpg	C:\Scotland_photos\Alan\	10	4.67 M
☐ scotland_alan_011.jpg	C:\Scotland_photos\Alan\	11	4.07 M
☐ scotland_alan_012.jpg	C:\Scotland_photos\Alan\	12	4.49 M
☐ scotland_alan_013.jpg	C:\Scotland_photos\Alan\	13	3.32 M
☐ scotland_alan_014.jpg	C:\Scotland_photos\Alan\	14	2.90 M
☐ scotland_alan_015.jpg	C:\Scotland_photos\Alan\	15	3.17 M
☐ scotland_alan_016.jpg	C:\Scotland_photos\Alan\	16	4.36 M
☐ scotland_alan_017.jpg	C:\Scotland_photos\Alan\	17	4.48 M
☐ scotland_alan_018.jpg	C:\Scotland_photos\Alan\	18	3.73 M
☐ scotland_alan_019.jpg	C:\Scotland_photos\Alan\	19	3.17 M

Ready.

93 File(s) shown



Duplicate Cleaner Features			Version		
Category	Feature	Additional information	Pro v5	Pro v4	Free
Main features	Find & remove duplicate files	<i>Four scan modes available - Regular, Image, Audio & Video.</i>	x	x	x
	Find & remove duplicate folders	<i>Find complete duplicated folder structures</i>	x	x	
	Find unique (non-duplicate)/remaining files	<i>Useful in drive/folder comparison scenarios</i>	x	x	
	Quick-start wizards	<i>Handy for getting a quick start with a range of scanning scenarios</i>	x		
	Themes	<i>Clean new GUI with user-changable themes (including dark mode)</i>	x		
	Load and Save scans	<i>Load and save complete scan sets or just the settings for later.</i>	x		
	Virtual folders	<i>Create your own offline 'virtual folders' to scan against - no need for the original drive/network share to be present.</i>	x		
	Toolkit	<i>Useful standalone tools including empty folder removal and file hashing.</i>	x		
	Scan your portable devices	<i>Duplicate Cleaner can now read portable media devices such as smartphones and mp3 players.</i>	x		

Pro version has many other features
e.g. *Find files with Similar Content*

<https://www.digitalvolcano.co.uk/dcfeatures.html>

SINGLE USER
\$52.00 CAD

Share

Google Pay - Which is Best?



Google Pay

Google LLC Finance

*Currently available in Canada
supporting payment & loyalty cards*



Google Pay: Save, Pay, Manage

Google LLC Finance

*Latest generation of the app and not yet available
in Canada but probably on its way*

*Will probably support peer-to-peer payments
similar to PayPal and various other fintech apps*

Stewart Bruce



Less Secure Apps and Google



On 30 May, you may lose access to apps
that are using less secure sign-in
technology

- Will I be able to access Gmail with my browser?
- Can I use Thunderbird on my laptop?
- What about K-9 on my smartphone?

- To help keep your account secure, starting May 30, 2022, Google will no longer support the use of third-party apps or devices which ask you to sign in to your Google Account using only your username and password
- If an app or site doesn't meet our security standards, Google might block anyone who's trying to sign in to your account from it
- If the app or the operating system on your device is out-of-date, updating to the latest version might allow you to use the app with your Google Account



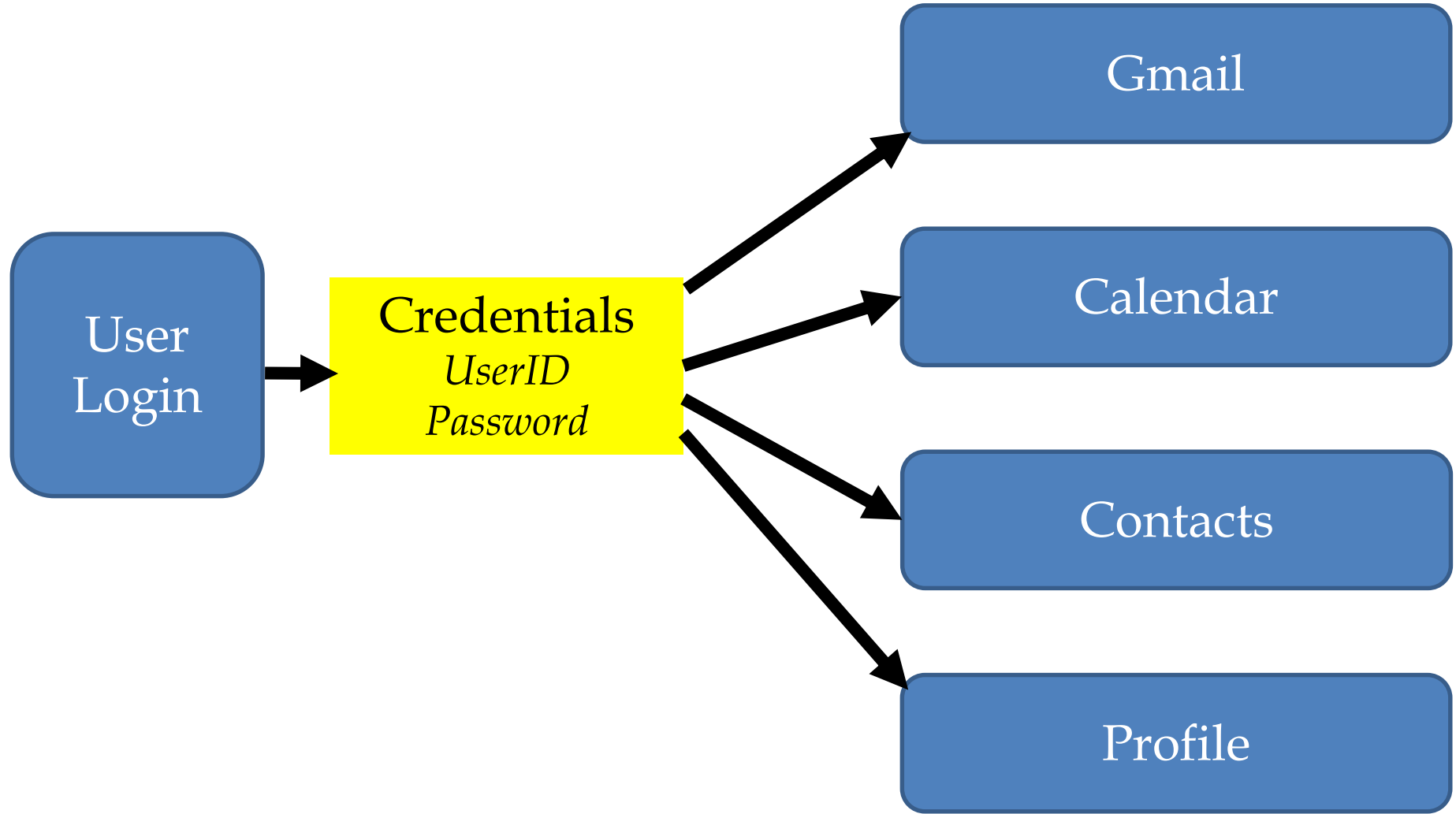
OAuth 2.0 – Open Authorization

OAuth 2.0

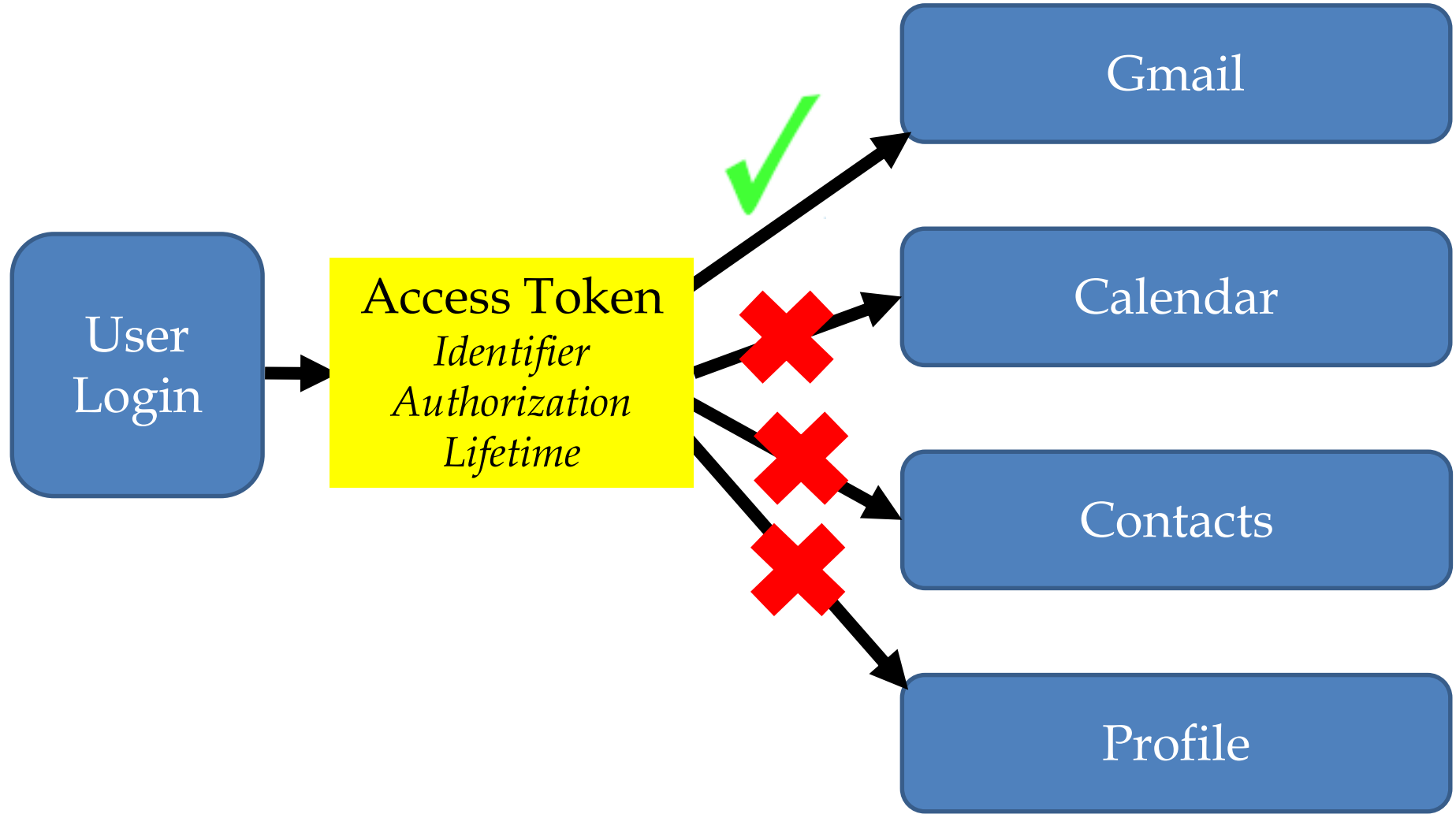
OAuth 2.0 is the industry-standard protocol for authorization. OAuth 2.0 focuses on client developer simplicity while providing specific authorization flows for web applications, desktop applications, mobile phones, and living room devices. This specification and its extensions are being developed within the [IETF OAuth Working Group](#).

<https://oauth.net/2/>

Basic Authorization



Open Authorization (OAuth)





Thunderbird and OAuth2



B. Stewart Original Poster

6 days ago



Will we no longer be able to use Thunderbird with gmail?

I got a notice saying 3rd party apps will be permanently disabled on May 30th

Can I no longer access gmail even using the latest version of Thunderbird?



bkc56  Diamond Product Expert

6 days ago



You will need to use an e-mail client or app that supports OAuth 2.0 (<https://oauth.net/2/>) as using the username/password combination will no longer be sufficient.

<https://support.google.com/accounts/answer/6010255>

The latest version of Thunderbird should be OK.



Thunderbird

Using OAuth2 with Thunderbird and Gmail

- To use Thunderbird to access your Gmail account, Google will tell you that you must allow “Insecure apps” in your Google security settings
- However, since Version 38, Thunderbird has supported OAuth2 with Gmail, so you don’t have to enable “Insecure apps”
- Google just doesn’t tell you that

<https://www.supertechcrew.com/thunderbird-oauth2-gmail/>

Things to do:

- Change authorization for sending mail
- Remove old, saved passwords
- Restart Thunderbird
- Login to Gmail



In your Google Account

- Provide permission to use Thunderbird
- Turn *Allow Insecure Apps* off



File Edit View Go Message Events and Tasks Tools Help

Inbox - alan.german@opcug.ca Account Settings

Server Settings

Copies & Folders

Composition & Addressing

Junk Settings

Synchronization & Storage

End-To-End Encryption

Return Receipts

alan.german@opcug.ca

Server Settings

Copies & Folders

Composition & Addressing

Junk Settings

Synchronization & Storage

End-To-End Encryption

Return Receipts

Account Actions

Thunderbird Preferences

Add-ons and Themes

Server Settings

Server Type: IMAP Mail Server

Server Name: Port: Default: 993

User Name:

Security Settings

Connection security:

Authentication method:

Server Settings

☒ Check for new messages at startup

☒ Check for new messages every minutes

☒ Allow immediate server notifications when new messages arrive

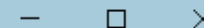
When I delete a message:

☒ Move it to this folder:

☐ Just mark it as deleted

☐ Remove it immediately

Advanced...



Tools – Account Settings – Outgoing Server – Edit

SMTP Server

Settings

Description:

Server Name:

Port: Default: 465

Security and Authentication

Connection security:

Authentication method:

User Name:

OK Cancel

Add...

Edit...

Remove

Set Default

Composition & Addressing

Junk Settings

End-To-End Encryption

Return Receipts

▼ alan.german@opcug.ca

Server Settings

Copies & Folders

Composition & Addressing

Junk Settings

Synchronization & Storage

End-To-End Encryption

Return Receipts

▼ Local Folders

Junk Settings

Disk Space

Outgoing Server (SMTP)

Account Actions

⚙ Thunderbird Preferences

🧩 Add-ons and Themes

Things to do:

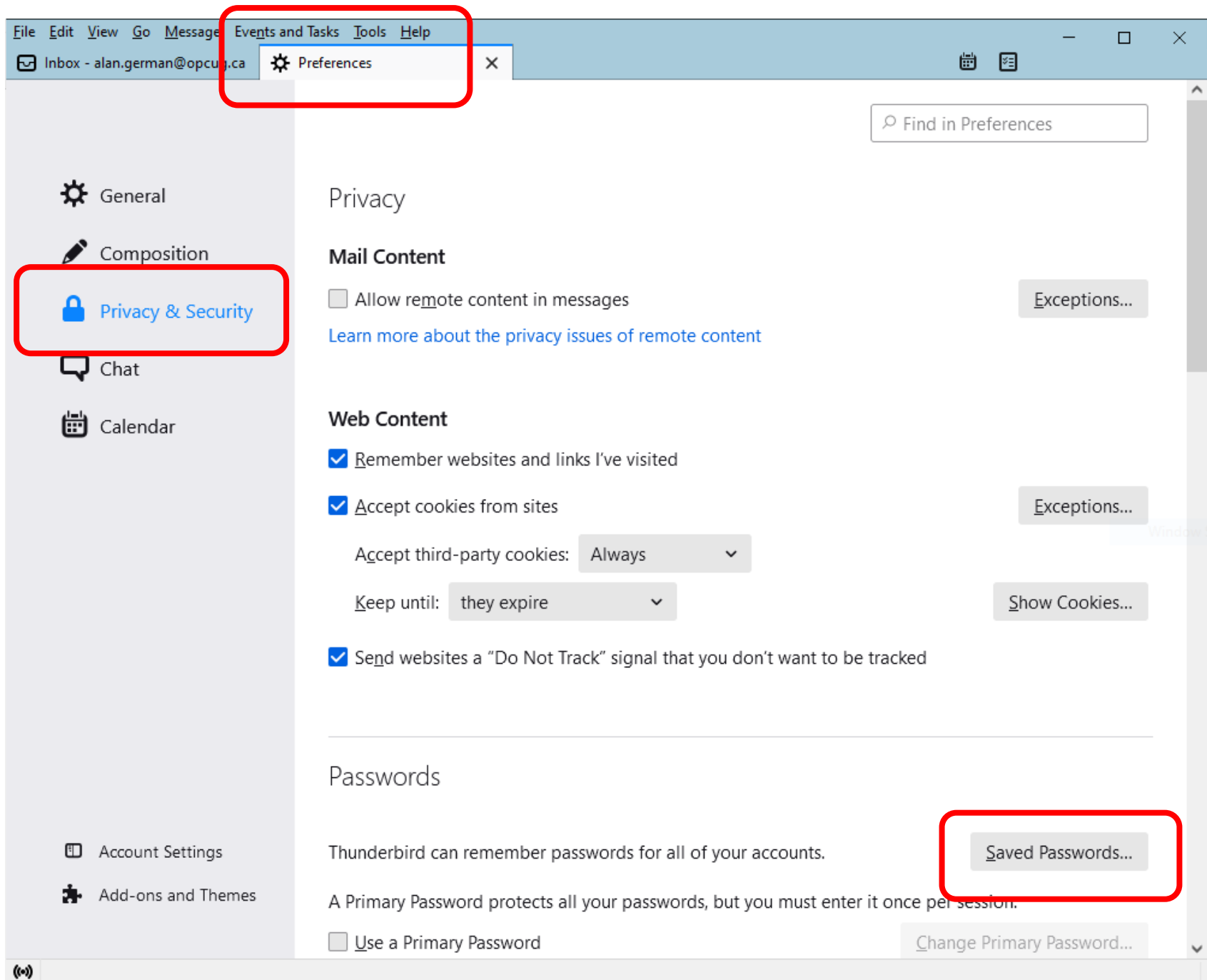
- Change authorization for sending mail
- Remove old, saved passwords
- Restart Thunderbird
- Login to Gmail

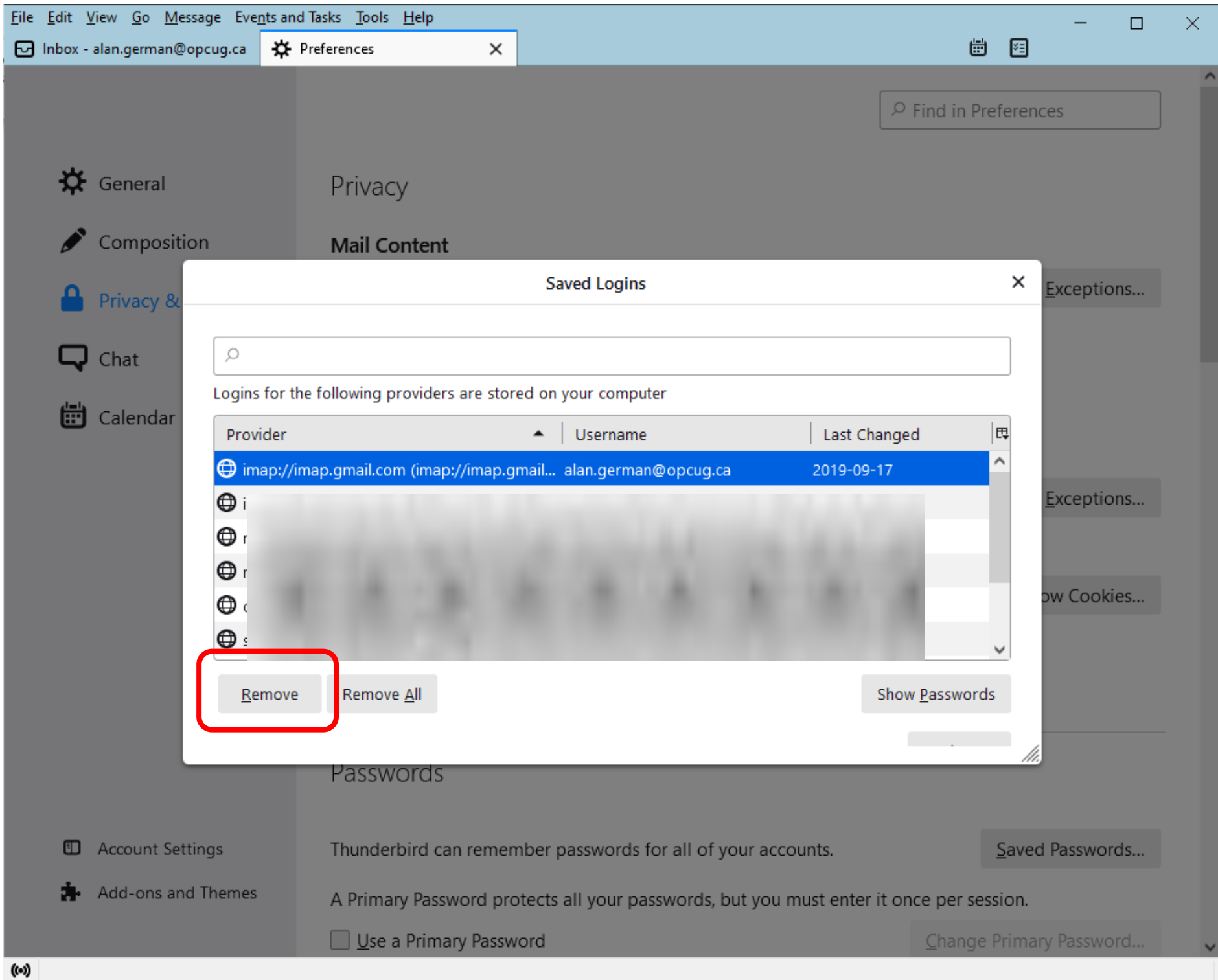


In your Google Account

- Provide permission to use Thunderbird
- Turn *Allow Insecure Apps* off







Things to do:

- Change authorization for sending mail
- Remove old, saved passwords
- Restart Thunderbird
- Login to Gmail



In your Google Account

- Provide permission to use Thunderbird
- Turn *Allow Insecure Apps* off



Security - Third-party apps with account access

Third-party apps with account access

You gave these sites and apps access to some of your Google Account data, including info that may be sensitive. Remove access for those you no longer trust or use.



nvidia sif

Has full access to your Google Account



Mozilla Thunderbird Email

Has access to Gmail



UpdraftPlus

Has access to Google Drive

[Manage third-party access](#)

← Apps with access to your account

Third-party apps with account access

You gave these sites and apps access to some of your Google Account data, including info that may be sensitive. Remove access for those you no longer trust or use. [Learn about the risks](#)



nvidia sif

Has full access to your Google Account



Mozilla Thunderbird Email

Has access to Gmail

[REMOVE ACCESS](#)

Has access to:



Gmail

Read, compose, send, and permanently delete all your email from Gmail

Homepage: ?

<https://www.thunderbird.net>

Access given on:

September 17, 2019

See something suspicious? [Report this app](#)



UpdraftPlus

Has access to Google Drive

Less secure app access

Your account is vulnerable because you allow apps and devices that use less secure sign-in technology to access your account. To keep your account secure, Google will automatically turn this setting OFF if it's not being used.

On May 30, 2022, this setting will no longer be available. [Learn more](#)

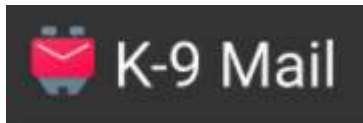


! On



Less secure apps & your Google Account

To help keep your account secure, starting May 30, 2022, Google will no longer support the use of third-party apps or devices which ask you to sign in to your Google Account using only your username and password.



ianola

Aug '21

The new K9mail is great and not as tired as the old version.

Is it possible to include an OAuth2 authentication option when setting the Authentication in Incoming server settings? I have a Gmail account that prefers this setting and I believe that Yahoo mail does too. I currently have to set my Gmail account to *Less secure app access* which is not ideal, to get Gmail to work. I believe OAuth2 is now the de facto industry standard for online authorization and would sit well with the new version of K2mail.



MonkeyMatt

Aug '21

Some people have tried to work on OAuth2 but it is quite a big change so hasn't been properly implemented yet. Basically just waiting on a developer willing to dedicate the time to continue the implementation

Latest work on OAuth2: [Add oauth2 support for gmail and outlook by Monkey-Matt](#) · Pull Request #5385 · [k9mail/k-9](#) · GitHub 231

<https://forum.k9mail.app/t/oauth2-authentication/2671>





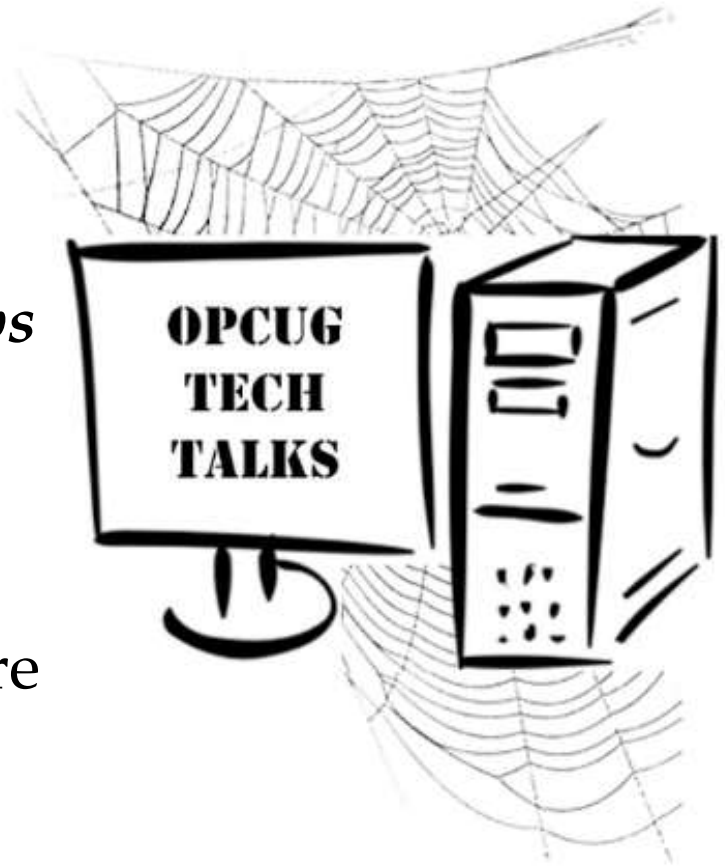
**Any other:
Questions
Comments
Shares?**

Spring Clean-up

April 4th, 7:00 pm

Ten tips to remove those digital cobwebs

1. Hard Disk Backup
2. Data File Synchronization
3. Security Settings
4. Double check your anti-virus software
5. Manage your Passwords
6. Software Updates
7. Remove Unused Software
8. Manage your E-mail
9. System Performance
10. Clean Up the Disk



Registration required

Free for OPCUG members

\$20.00 for non-members

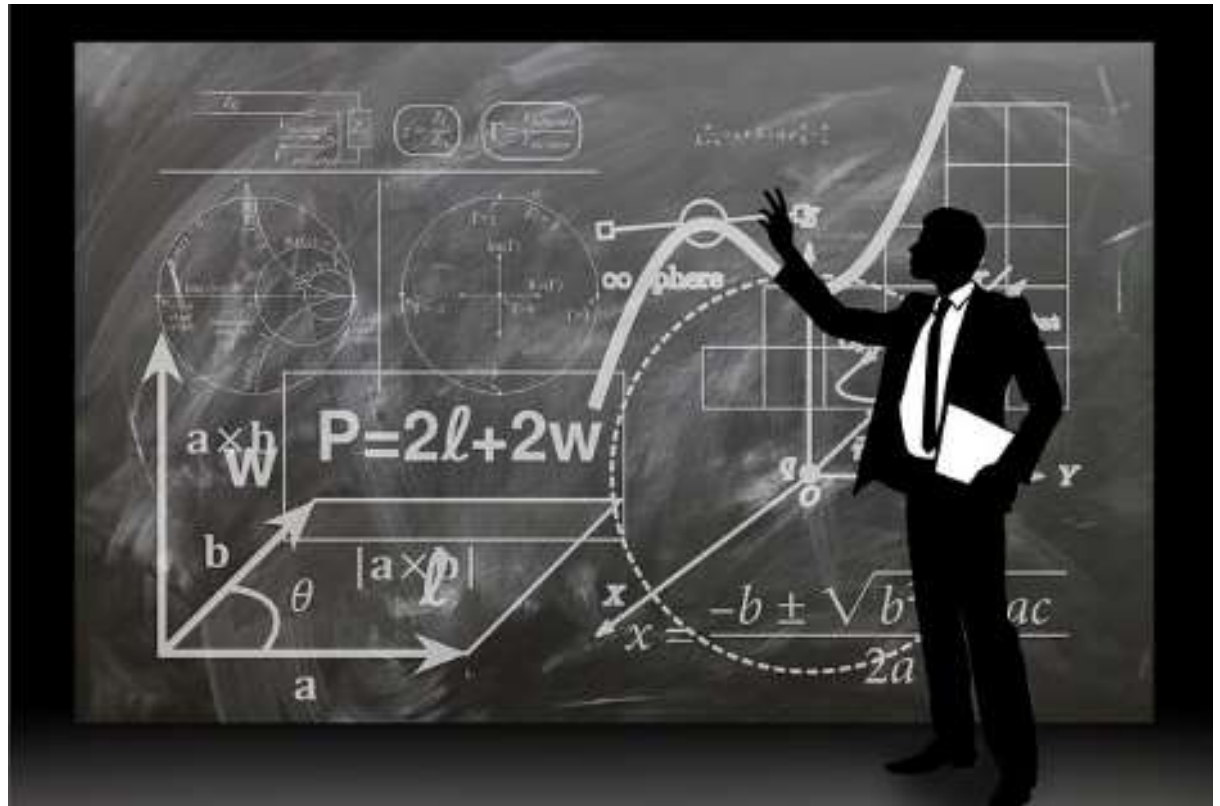
(including one-year membership)

Full details at:

<https://opcug.ca/events/springcleanup/>

**SPECIAL
OFFER!**

2 for 1



Our membership offer isn't that hard

Buy a one-year membership (\$20) and
get an additional year absolutely free!

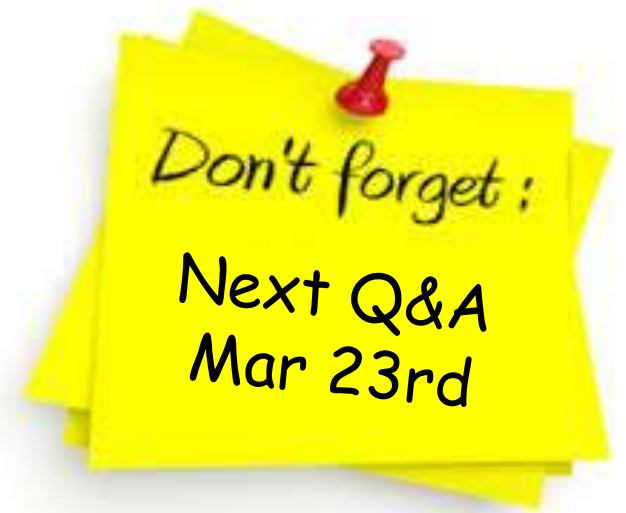
(But, only until March 31st)

Already an OPCUG Member?



Don't renew your membership !

Your membership
expiry date will be
extended by another
year at no cost



**Send your questions,
answers, and topics
you wish to share to:**

SuggestionBox@opcug.ca

