FONTS FOR EVERYONE!

A presentation by
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For PATACS+OPCUG
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Some of the fonts I installed



AGENDA

- What is a font? Why add fonts?
- What are Postscript, TrueType and OpenType fonts?
- Online sources of font files
- Font faces and font styles: a file for each
- Installing and uninstalling fonts on Windows
- Installing and uninstalling fonts on Macintosh
- Installing and uninstalling fonts on Linux

What is a Font?

- A Font is a set of character Faces (sharing visual design features) and Styles (plain, bold, Italic).
- Fonts have always been a part of personal computers
- Font faces on personal computers became easy to change when the Macintosh and Windows introduced **What You See Is What You Get** (WYSIWYG).
- Fonts exist on your computer in **font files**. Each font file is named for its face. For example: arial.ttf
- Each style of a font exists in separate files: regular, bold, italic, and bold + italic files.

Reasons for adding fonts

- 1. You write or create for an organization that requires you to use a **specific font** in your work files.
- 2. You want a **font that adds a unique look** for your flyer, banner, brochure, calendar, slide deck, video, or other public document.
- 3. You receive a document. The document application that opens it chooses a substitute font that is not easily readable. The font used by the document creator is therefore not installed on your computer.

Example of a script font use

- A photo page from my 2026 photo calendar
- The circled text appears in a font named **Beyond the Mountains**



Writing with a required font

- Many organizations *require* writers to use a specific font in their files.
- My final employer required me to use the **Calibri** font. I was employed there as a tech writer for 13 years.
- APCUG requires articles written for its PUSH article sharing service to use the **Arial** font and 1 inch margins.

Font availability

- I found Calibri, Arial and many other fonts available on websites for downloading, mostly at zero cost.
- Some fonts have constraints on font use such as ***personal use only***.
- I write about solutions I discover so I can recall the solution details later. I assume others many need the same solutions.

History of personal computer fonts

- In 8-bit personal computers, each screen font was defined using 8x8 **character bitmaps,** rough and chunky, stored in Read Only Memory (ROM).
- The what-you-see-is-what-you-get (**WYSIWYG**) capability on personal computers became popular in the 1980s when MacOS and Windows were introduced.
- **Adobe Postscript fonts** are defined by lines and curves, and look great at large sizes.
- Microsoft created an alternative lines-and curves font file type called **TrueType** (file extension TTF).

TrueType and OpenType fonts

- Microsoft and Adobe later jointly created the **OpenType** font definition method (**file extension OTF**). OTF is now an **International Standards Organization (ISO) standard.**
- Windows, Macintosh and Linux computers use both TrueType and OpenType font files. Most applications use those fonts.
- Some companies and individuals create TrueType or OpenType font files and seek license fees when those font files are used for commercial purposes.
- Some font files are made available for personal use only with no license fee. Some font files are zero-cost for all uses.

Websites providing zero-cost font file downloads

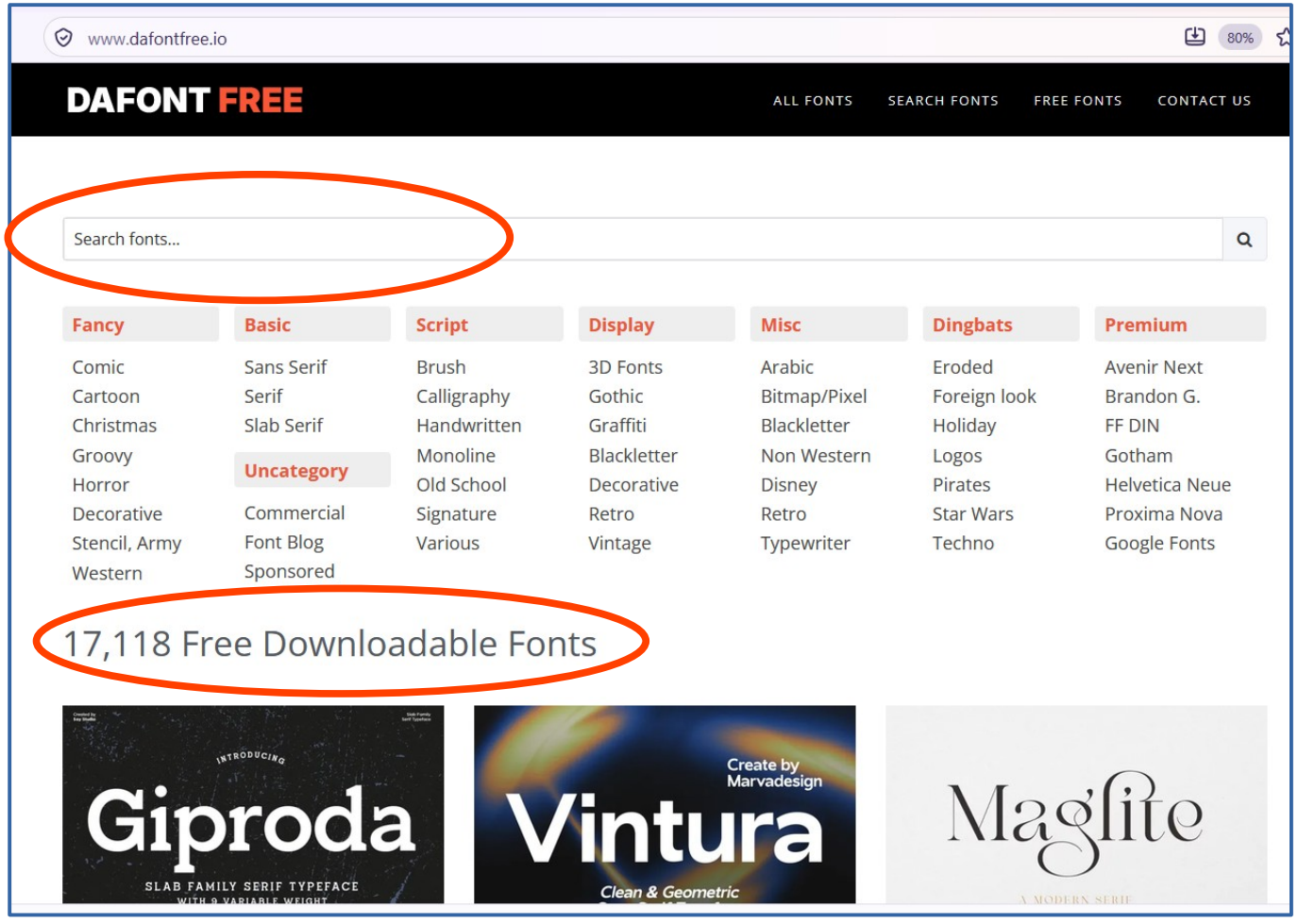
- **https://fonts.google.com/**
- **https://www.dafontfree.io** has both Calibri and Century fonts available at zero cost.
- Both these sites and others provide web page images of sample phrases in each font so you can see some of the font features.
- When you download font files, you need to know how to install the font files. You will learn how to do that today.

Dafontfree.io as of 10/16/26

FONT GROUPS

FONT SAMPLES

SEARCH FIELD



Browse and download a font from dafontsfree.io

- Select a subgroup. Browse the font sample tiles appearing below the Groups. Click the **font sample tile you want**. A new web page opens.
- Scroll down to find the Download link.
- When you click that link, you may find another web page in which to find and click a download link.
- Eventually a click on a download link will download the font file or a Zip file containing the font style files.

Font installation in a nutshell

- Step 1. Download a TTF or OTF file file or files.
- Step 2. Install the downloaded files.
- Why might more than one font file be needed?
- Each **font face style**, meaning regular, bold, italic, and bold italic, is provided in a separate font file.
- Some fonts include all four face files, and others include just one, the regular font face.
- A set of four files usually is downloaded in a Zip file with no password required to open the Zip file.

Consistent font management on all personal computers

- Each operating system maintains an installed font catalog for use by applications.
- When an app that uses fonts starts up, the OS provides the catalog to the app.
- When a new font face is installed, the catalog is updated by the OS.
- If a font is installed ***while an app is running***, then restart the app to refresh its copy of the catalog.

WINDOWS
MACINTOSH
LINUX

This section was developed using the Windows 10 operating system. Windows 11 works the same way.

Windows font installation

- When you download a font file or a Zip file, find the downloaded file(s) in your Downloads folder.
- Window File Explorer can open the Zip file.
- **Double-click** each OTF or TTF file.
- For each clicked file, a **font preview window** opens to show examples of the chosen font, and includes an **Install button**.
- The window includes an Install button. Click the Install button.
- Done!

Windows font preview window

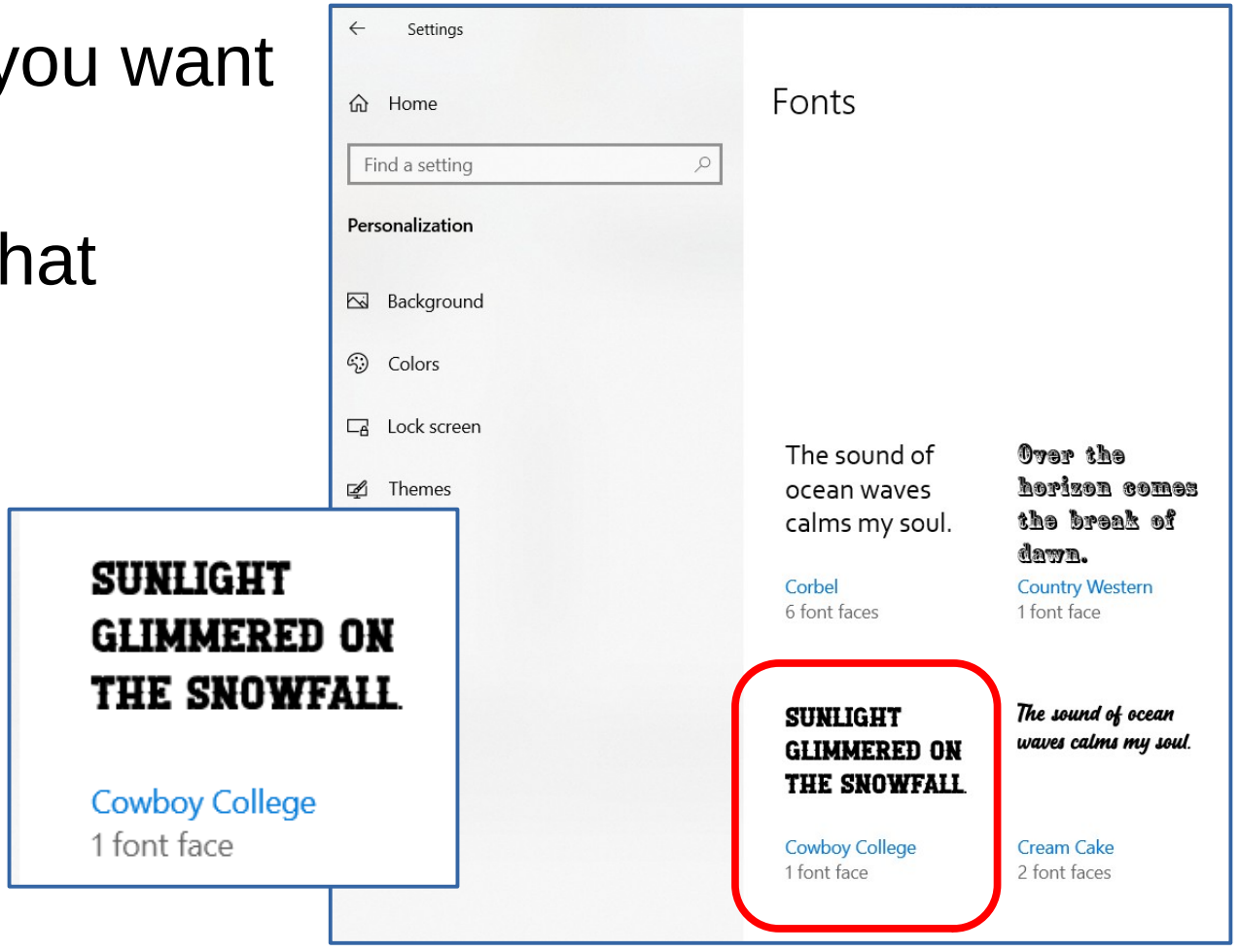


Uninstalling fonts in Windows

- Open the **Settings app.**
- Select **Personalization.**
- In the left pane, select **Fonts.**
- An alphabetic list of fonts appears.
- Scroll to the font you want to delete.

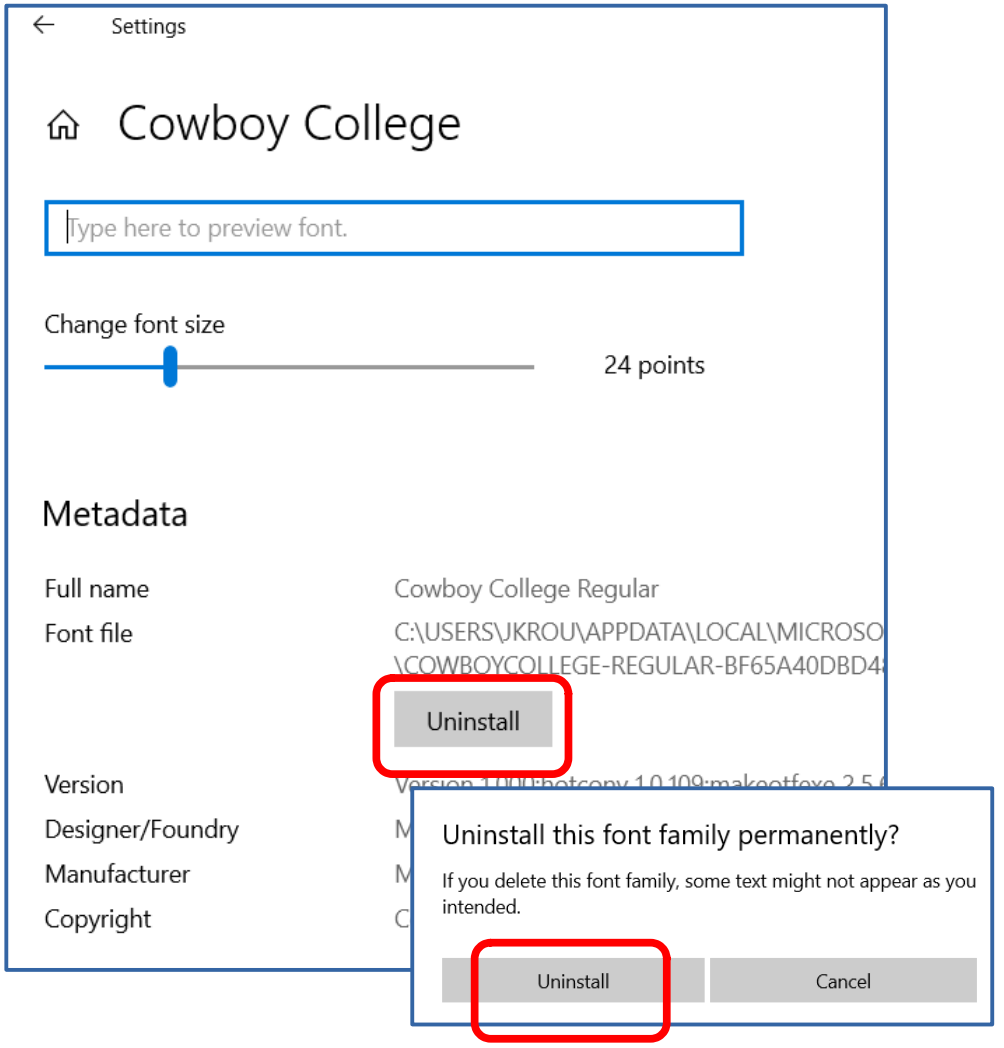
The alphabetic font list

- Find the font you want to remove.
- Double-click that font tile.



Example of a font deletion

- When you click the font tile in the alphabetic list, this Settings window appears.
- Click the **Uninstall button** (circled).
- A popup window appears, asking you to confirm the deletion.
- Click the **Uninstall button (circled)** in the popup**.**



Example of a font deletion

- The popup and the Settings window close.
- Settings displays the alphabetic list of fonts again.
- If you wish, you can confirm that the font you chose really is absent from the list.
- Done!

WINDOWS

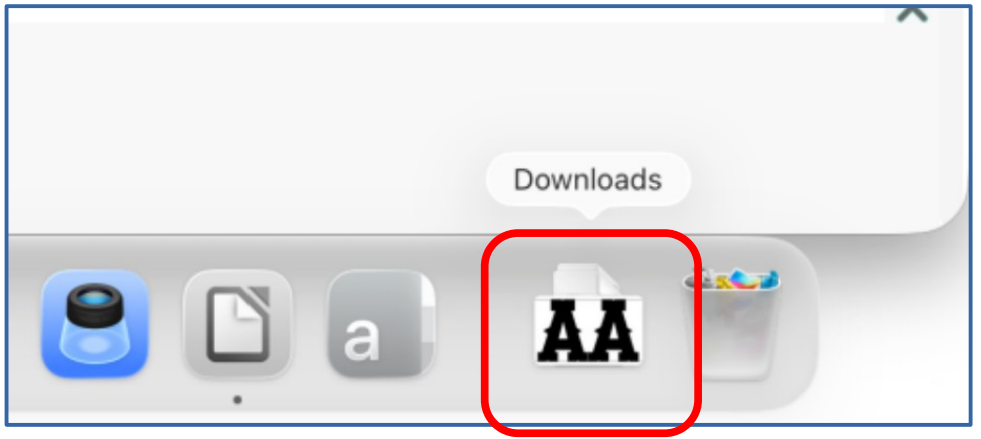
MACINTOSH

LINUX

This section was developed using a Mac Mini and the macOS 26 operating system

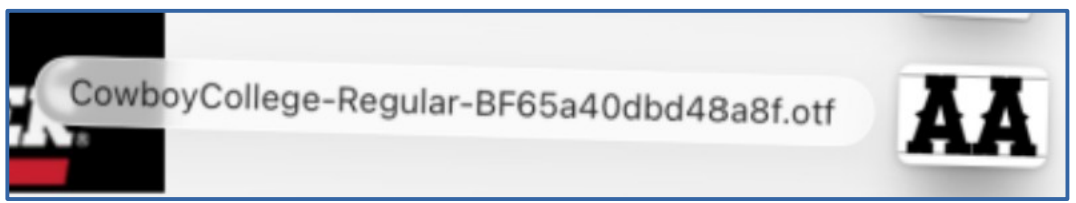
Find the new font file(s) in Downloads

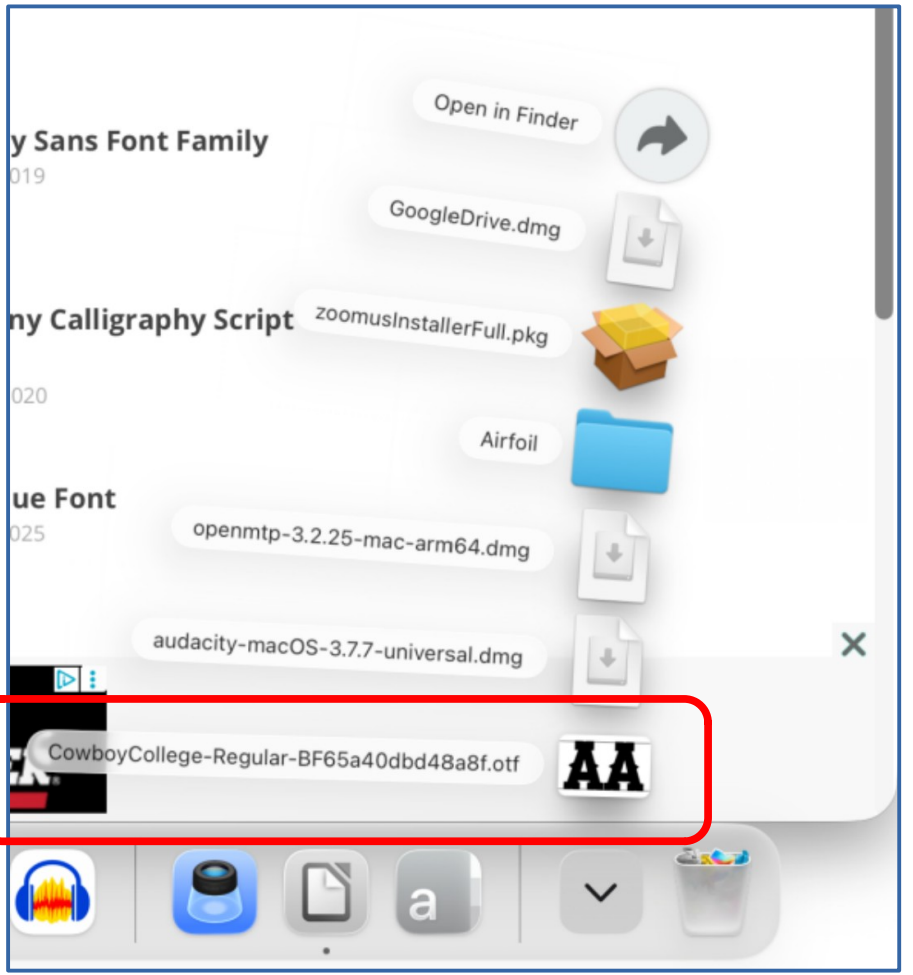
- Use Safari to download the font file or Zip file
- Find Downloads in the lower right corner of Mac screen
- A thumbnail of the most recent download is depicted (circled).
- Click the thumbnail.



The downloads list pops up

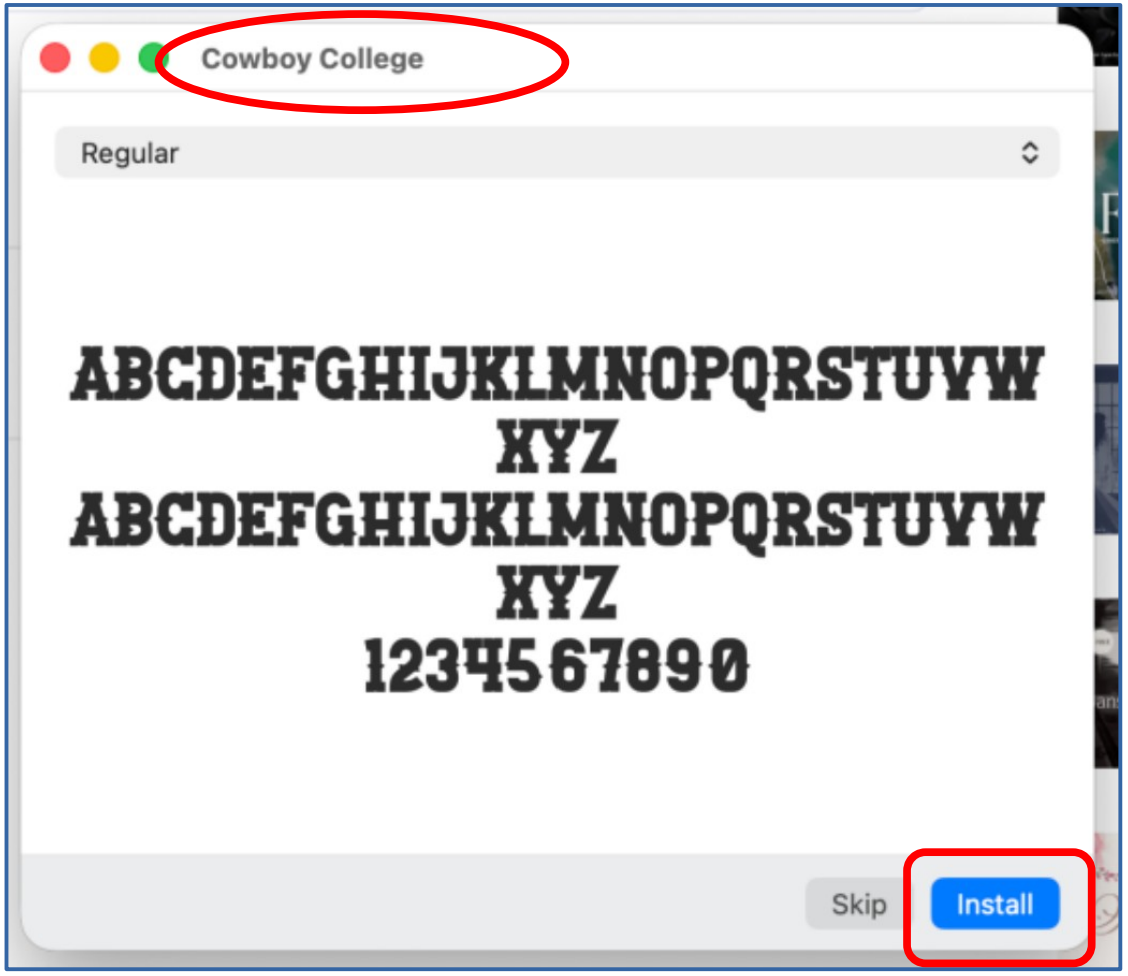
- The most recent download is at the bottom of the curved list.
- Find and click the Font file (circled).





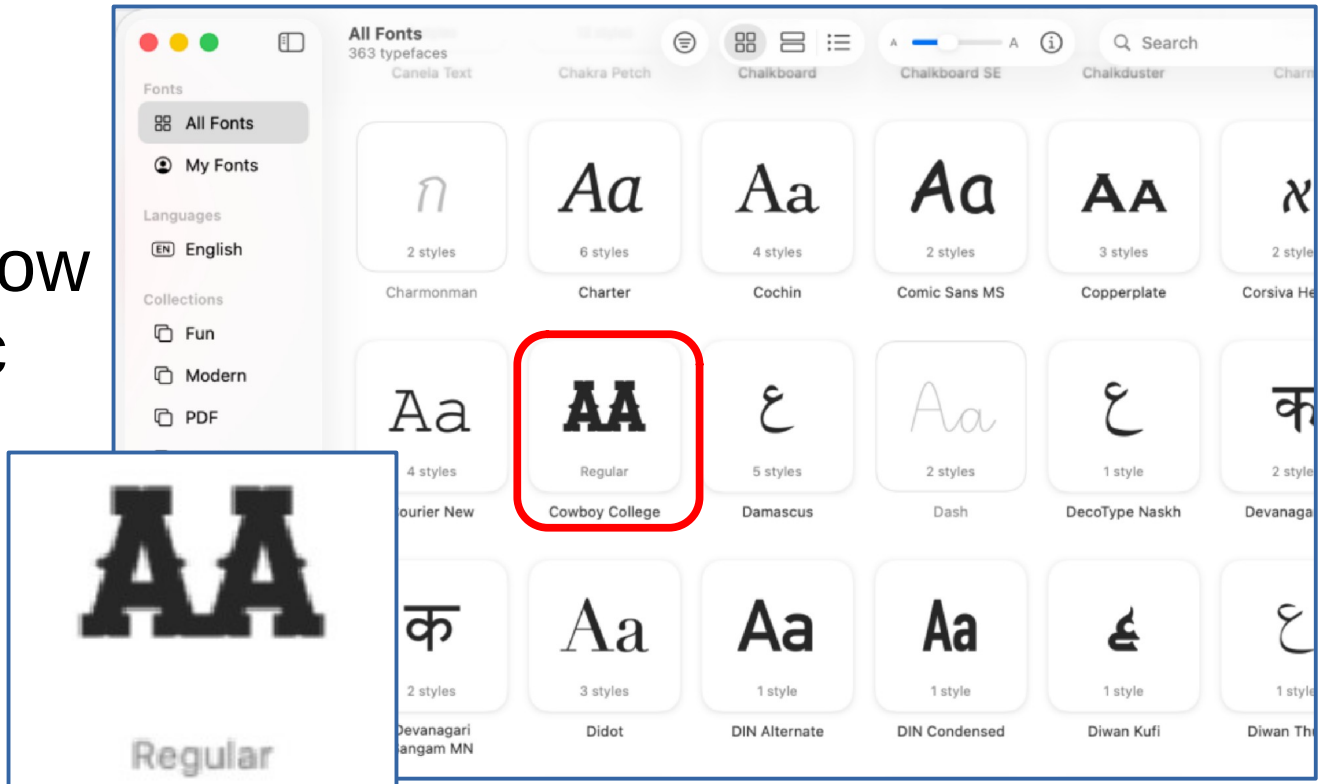
The installer popup window appears

- The font name is shown at the top.
- The font name is Cowboy College in this example.
- A text sample is displayed using the font.
- Click the **Install button** (circled).
- Done!



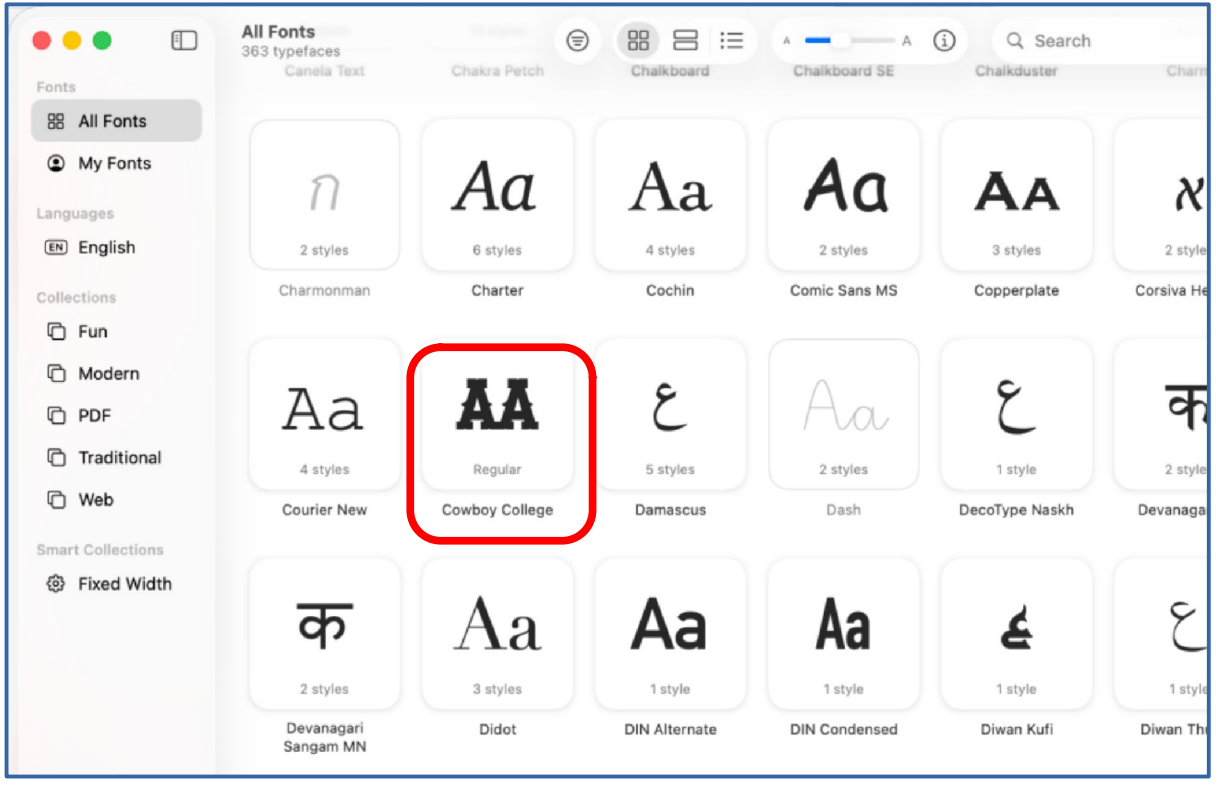
The Font Book Application

- The installer closes and the Font Book application opens.
- The Font Book window shows an alphabetic list of fonts.
- If you wish, scroll through the list to find the new font (circled).



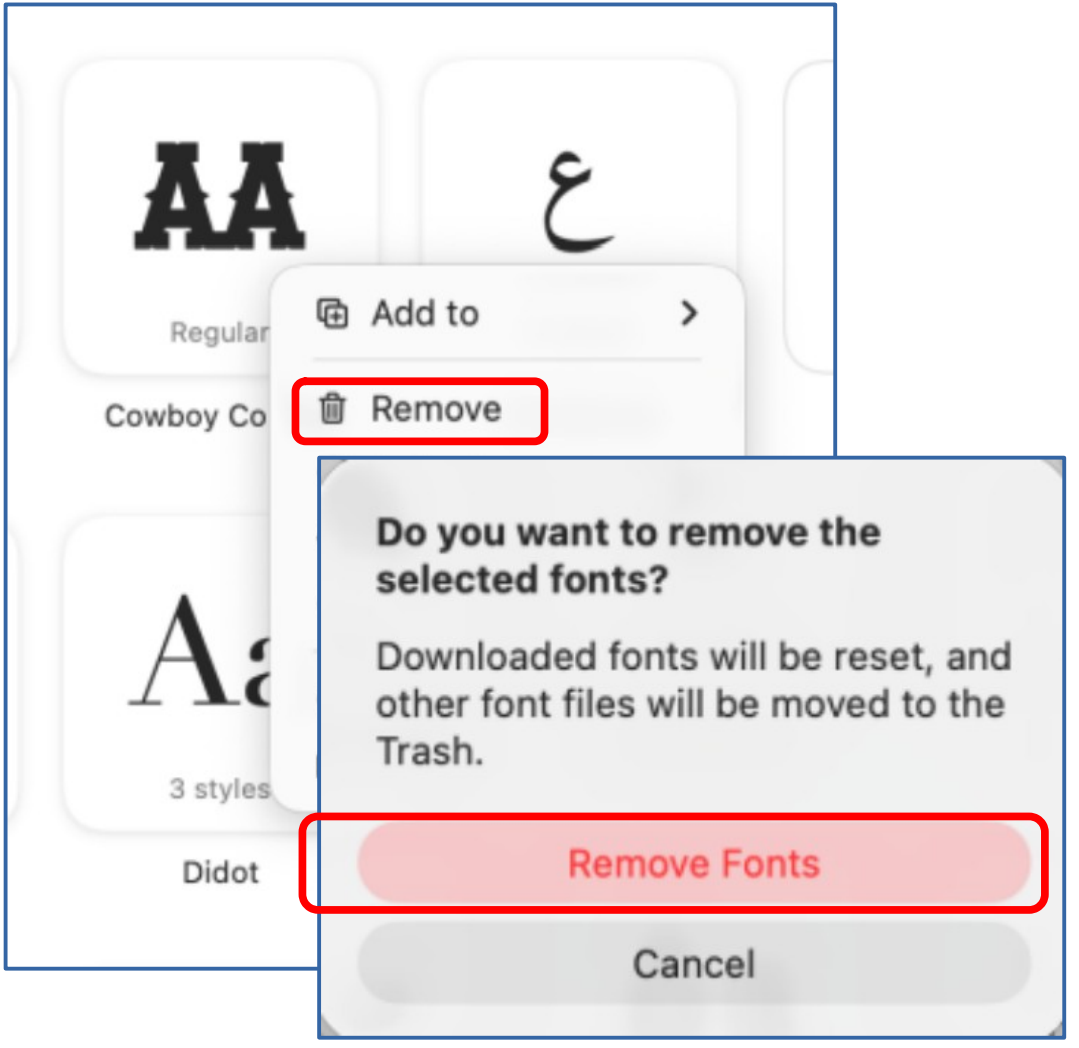
Uninstalling a font

- Open the Font Book application.
- The Font Book shows an alphabetic list of fonts.
- Scroll through the list. Find and click the font to uninstall (circled).
- A menu appears (next slide)



A popup context menu appears

- In that menu, select the **Remove** choice (circled).
- The menu closes and a a popup appears.
- In the popup, click the **Remove Fonts** button (circled). The popups close and the selected font disappears from the Font Book window.
- Done!

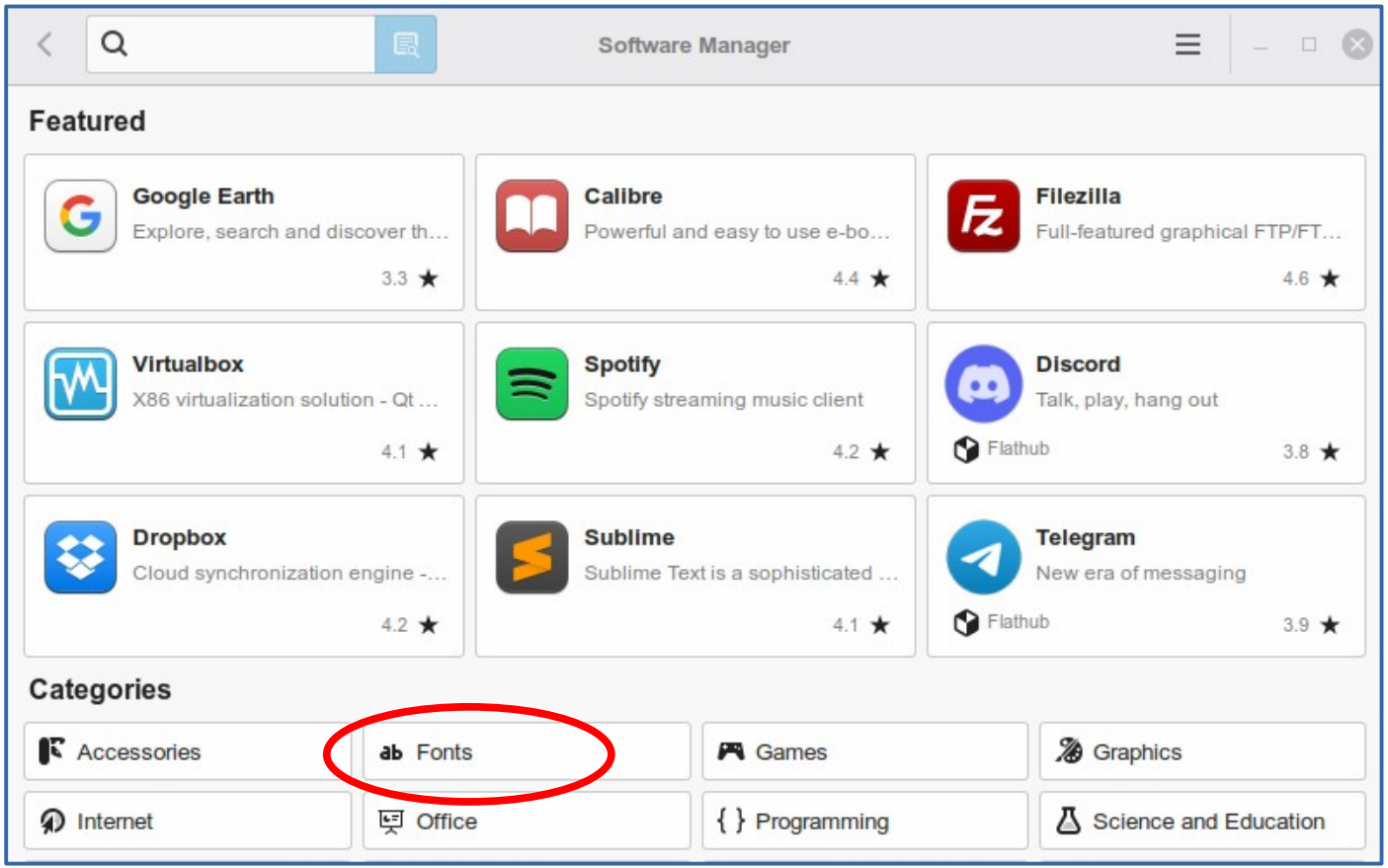


WINDOWS
MACINTOSH
LINUX

This section was developed using the
Linux Mint 22 OS + Cinnamon GUI

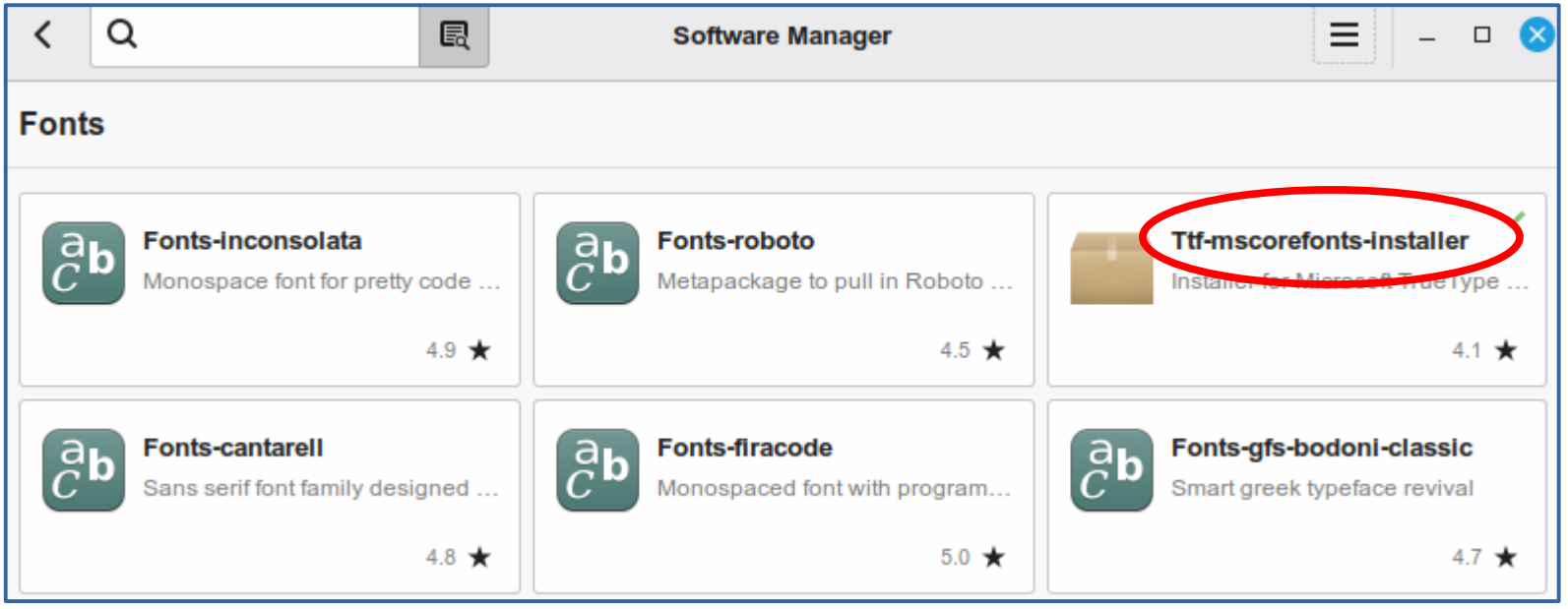
Arial font and the Linux Mint Software Manager

- The **Software Manager** has a ***package category*** called **Fonts** (circled).
- Click the Fonts category.



Arial font and the Linux Mint Software Manager

- A number of packages for font files are listed.
- Note the **Ttf-mscorefonts-installer** package (circled).



Arial font and the Linux Mint Software Manager

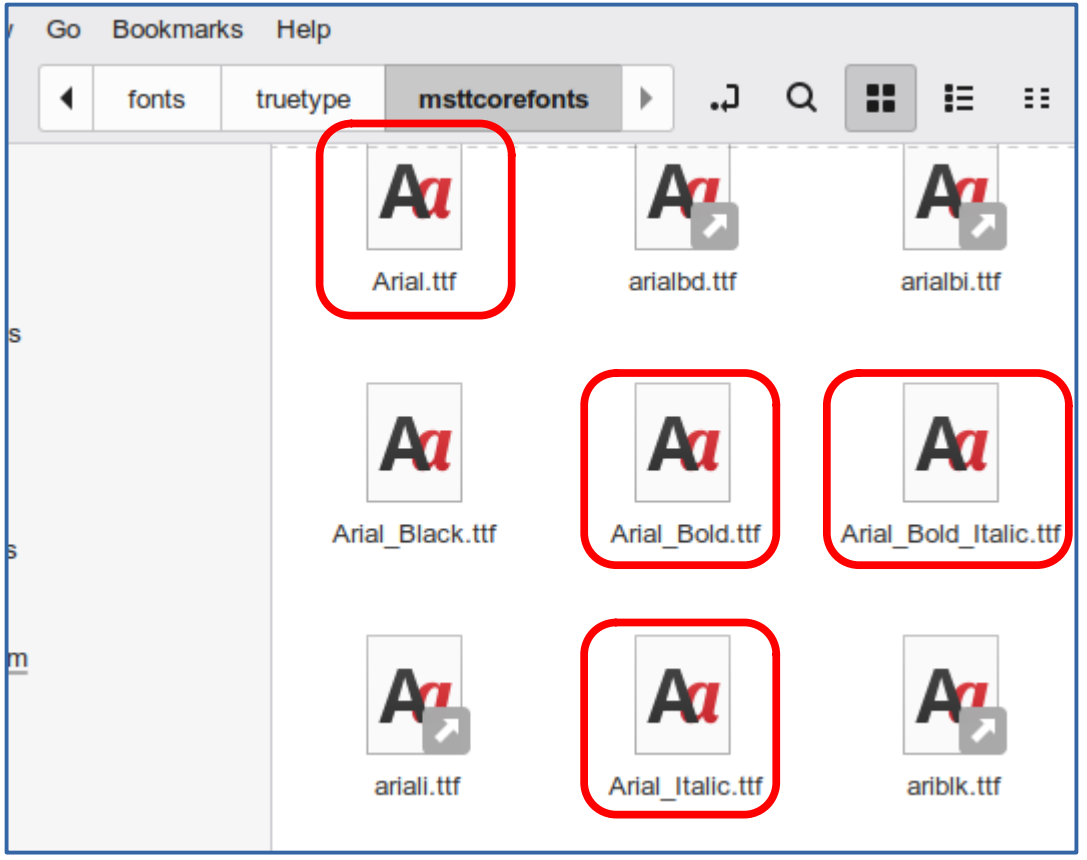
- TTF MSCORE fonts Installer contains ***twelve fonts***: Arial, Times New Roman, Courier New, Comic Sans MS, Verdana, Georgia, Impact, Trebuchet MS, Andale Mono, and the Webdings symbols font.
- I use Arial for articles I send to APCUG PUSH. In those articles, I use Times New Roman to label illustrations.

Arial font and the Linux Mint Software Manager

- I clicked **TTF MSCORE fonts Installer**.
- A popup asked me to agree to an **End User License Agreement** (EULA).
- That popup included a pane to display the EULA text, ***but that pane remained blank***.
- I clicked the Agree button anyway. The popup closed, and the fonts were installed automatically for use by every account on the Linux Mint computer. I did not have to know how to do that.

Regular, Bold, Italic, and Bold Italic

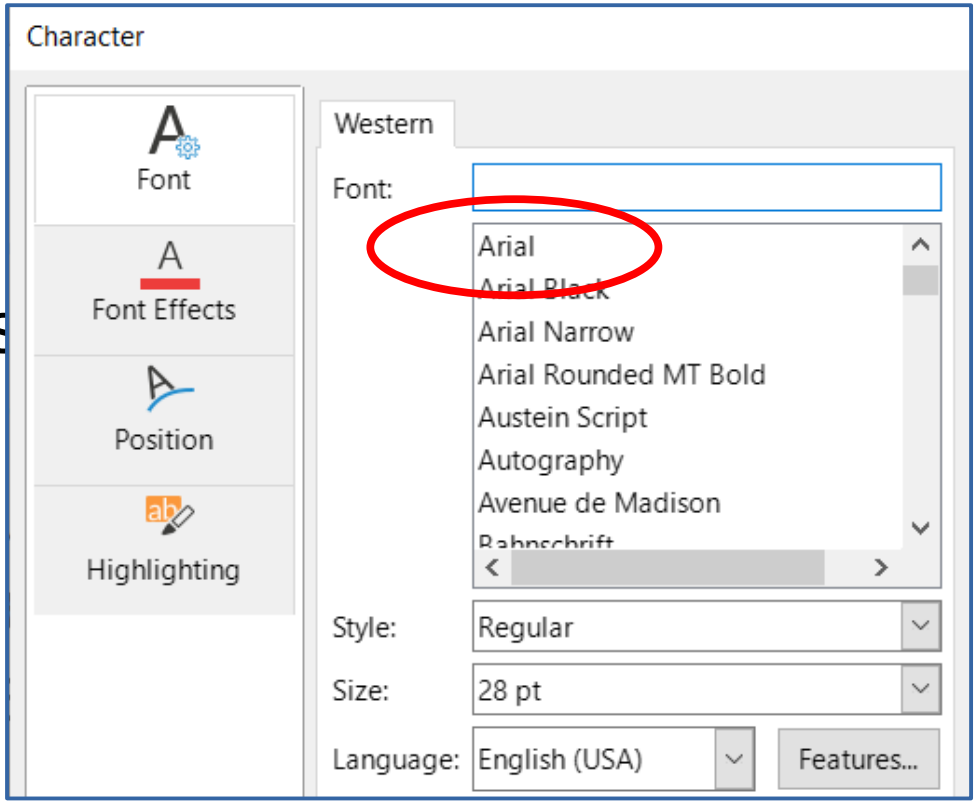
- Each is a separate style and is provided by a separate font file, such as Arial, Arial Bold, Arial Italic, and Arial Bold Italic.



- Those four Arial font style files are circled.
- The folder path is **/usr/share/fonts/truetype/mscorefonts**

Testing a font installation

- After installing TTF MSCORE fonts, I started LibreOffice Writer.
- I found in the LibreOffice Writer fonts menu that **Arial** and **Times New Roman** fonts were available for use in all four styles.
- Many downloadable fonts are available in Regular style only. That is typical for script fonts.



Downloading fonts from the Web

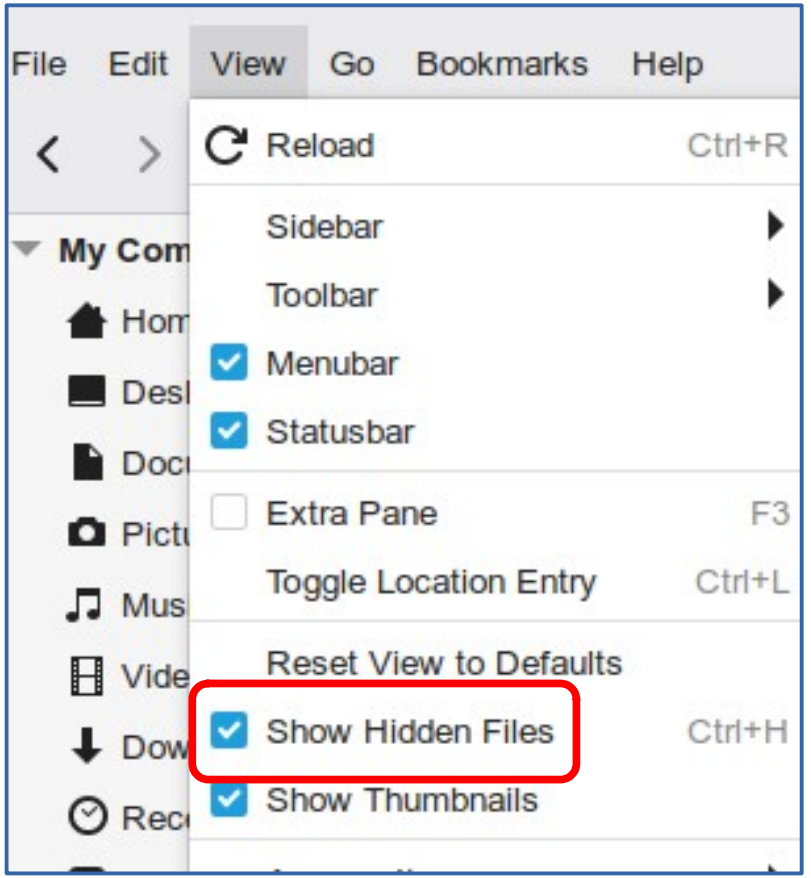
- Often a font is delivered in four styles, meaning four font files. Those are downloaded a Zip file with no password.
- Find those font files and Zip files in the Downloads folder.
- I created a personal Fonts folder in my home folder of my Linux account. I extract the four font files in the Zip file to my personal Fonts folder.
- Sometimes a font is delivered in Regular style only, as a single TTF or OTF file. I copy those files to my personal Fonts folder.

Where to Put Downloaded Font Files

- For font files usable by all Linux accounts: **/usr/share/fonts**
- That folder path is owned by Root. You will learn a convenient way to install fonts there.
- For font files used by your Linux account only: **~/.local/share/fonts** (for example, /home/john/.local/share/fonts)
- Your Linux account owns that folder path.
- ~/.local/share exists on my Linux Mint account, but ***I had to create the fonts folder under the share folder.***

How to make the ~/.local folder visible in the Files application

- Open the Files application
- Pull down the **View menu,** like you see here.
- In that menu, select **Show Hidden Files** (circled)



How to install font files

- Copy the font files to one of the folders I identified.
- The first one I learned about and used was **/usr/share/fonts**
- That path contained a number of sub-folders in my Linux Mint computer.
- At first, I opened that path as Root in the Files app, and copied the font files there.

How to install font files

- After adding one or more font files, a command in the Terminal window must be executed so that Linux Mint adds the new font to the Linux font catalog.
- **sudo fc-cache -fv**
  Adds font files put in /usr/share/fonts
- **fc-cache -fv**
  Adds font files put in ~./local/share/fonts
- The **v** in **-fv** is for verbose output and can be omitted

Critique of how to install font files

- Every time I installed another font, I used these steps.
- I opened the Zip file in my Downloads folder
- I extracted the font file(s) to my personal Fonts folder,
- I copied the font files(s)
- I opened /usr/share/fonts as Root,
- and pasted the font file(s) to that folder.
- I opened a terminal window and executed
  sudo fc-cache -fv

Critique of how to install font files

- That process got old because, over several days, I downloaded and installed many script font files to try out in my annual photo calendar.
- I had the font files in **three places**:
  Downloads, and
  my personal Fonts folder, and
  /usr/share/fonts
- The files are not huge, but the collection can become huge.

What is a Linux softlink?

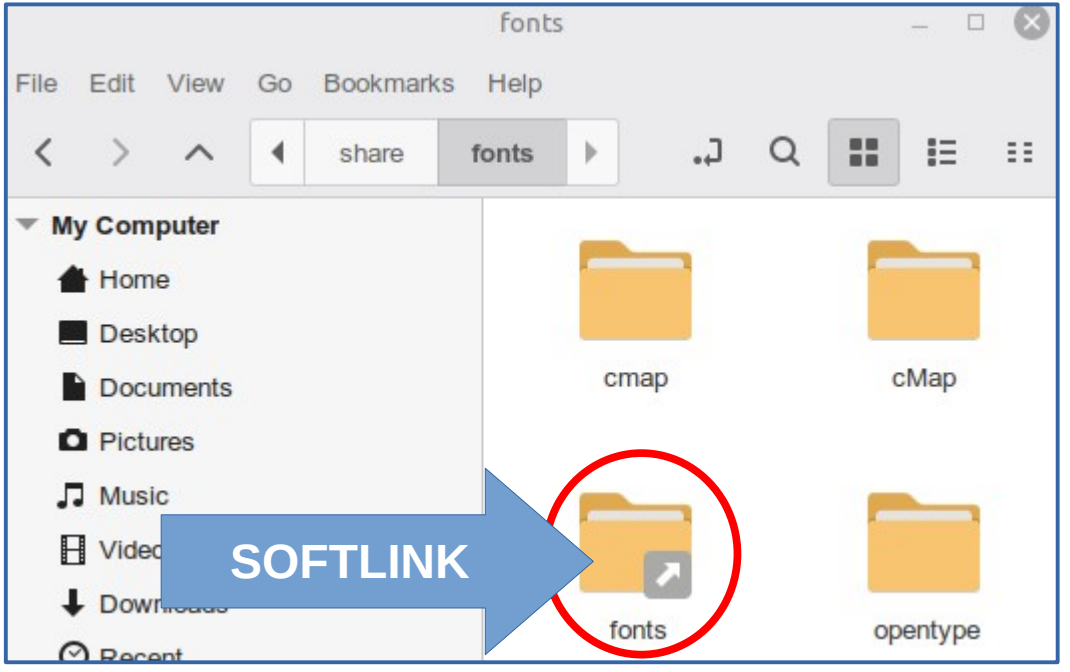
- Like a Windows shortcut, a Linux softlink allows a file or a folder that exists in one folder to be seen and used in another folder.
- The second folder contains only a very small pointer to the file in its original folder.
- I deleted the downloaded font files from my Downloads folder and from /usr/share/fonts.
- I copied the font files from my personal Fonts folder and ***pasted softlinks of those font files to /usr/share/fonts.***
- I still had to run **sudo fc-cache -fv** after that.

Critique of that softlink technique

- It does reduce the bulk of pasted copies of font files in /usr/share/fonts
- It does not reduce the number of steps required to install fonts or uninstall fonts.
- Next, we will learn now to eliminate that copy and paste work to /usr/share/fonts.

A more efficient softlink use

- Create **just one softlink** in /usr/share/fonts: a softlink for your personal account **Fonts folder**.



- After creating that softlink, each font file you place in your personal account Fonts folder is seen and catalogable in the /usr/share/fonts folder immediately.

- The font files are stored only in your Fonts folder, but can be found and used by Linux Mint in /usr/share/fonts.

A more efficient softlink use

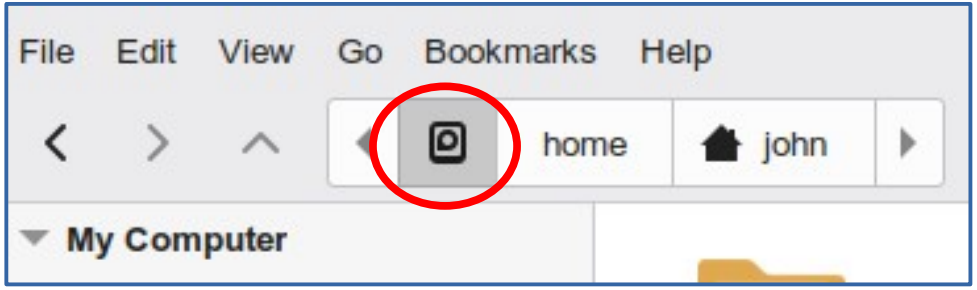
- All of that is accomplished without creating a softlink for each font file, and without using the Files app to access /usr/share/fonts as Root every time to paste font files or font file softlinks.
- This works even when adding fonts ***after*** creating a softlink for your personal Fonts folder in /usr share/fonts
- The terminal command **sudo fc-cache -fv**
  finds the font files in /usr/share/fonts and adds those font files to the Linux fonts database. Do that every time you add font files to your personal account Fonts folder.

What is the status of font files seen inside the softlinked folder?

- Those files do not appear to be file softlinks. The Files app does not show an arrow in the lower right corner of each font file.
- However, the font files are the original files, not copies.
- The folder softlink directs the OS to the original folder, and allows access to the original files in that original folder.
- This technique therefore also minimizes the number of softlinks in your file system.

How to browse to any path using the Files app

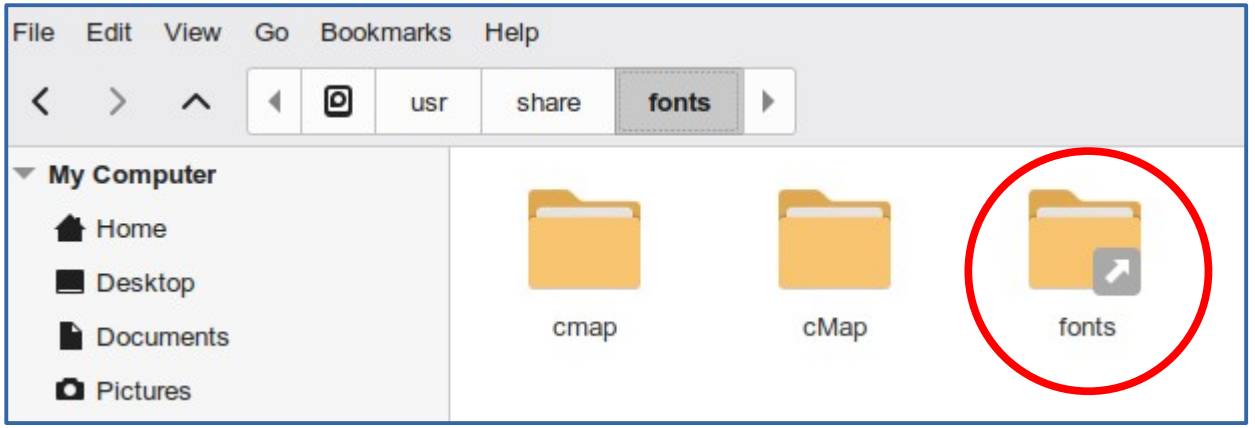
- To browse to **/usr/share/fonts**, click the circled icon at the left of the path at the top left corner of Files.



- That path area becomes blank.
- In that path area, type **/usr/share/fonts** <enter>.

/usr/share/fonts on a Linux Mint computer

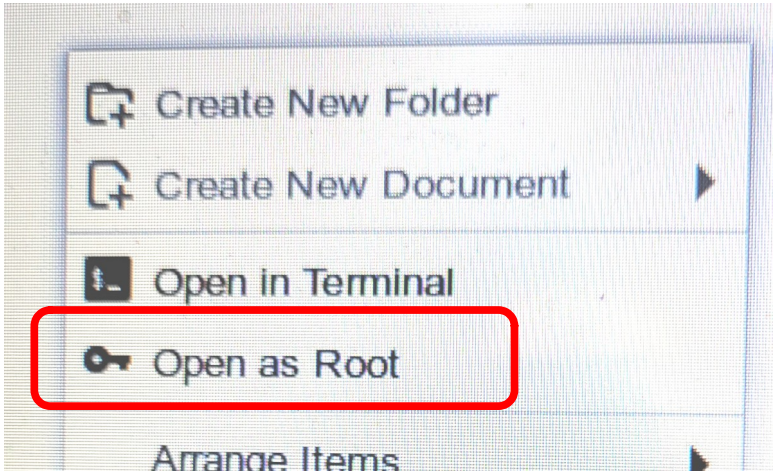
- The softlink to my personal Fonts folder is circled.



- You can recognize any softlink already in the folder by the **arrow in the lower right corner** of the icon.
- To open the /usr/share/fonts folder as Root so you can add a softlink to that folder, **right-click any blank part** of the right hand pane.

/usr/share/fonts on a Linux Mint computer

- A context menu appears, including the choice **Open as Root** (circled).
- Select that choice.
- Another Files instance opens for the same folder path, showing a banner labeled **Elevated Privileges**.



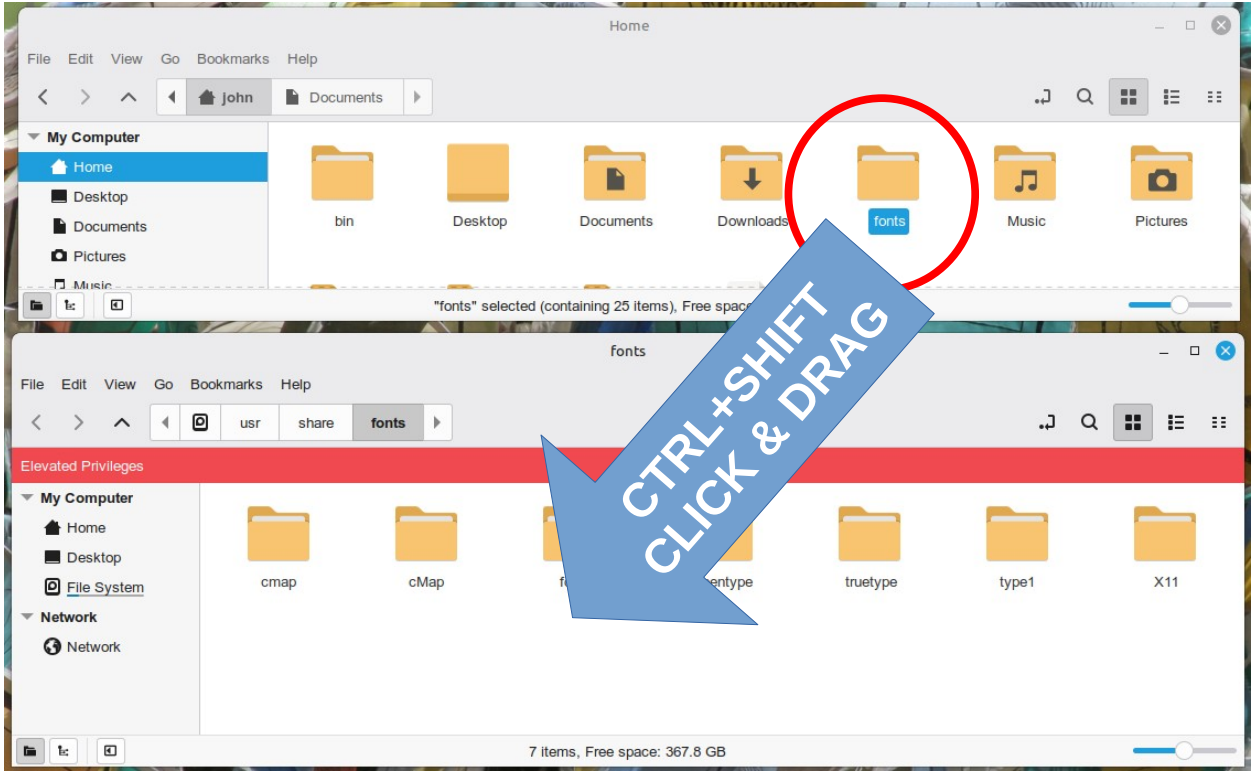
- This red banner instance of the Files application is ready to accept a Softlink of your personal Fonts folder.

How to create a softlink of your Fonts folder using Files

- Make sure the Elevated Privileges Files instance occupies less than the full screen.
- Make sure the Files instance showing your Fonts folder occupies less than the full screen.
- Click the Files instance showing your Fonts folder, then hold down both the CTRL and SHIFT keys.
- While holding down both keys, Click & Drag your Fonts folder into the Elevated Privileges Files instance right hand pane.

How to create a softlink of your Fonts folder using Files

- Select the personal Fonts folder (circled).
- Hold down CTRL and SHIFT
- While holding down those keys, **Click & Drag the personal Fonts folder** to the destination folder.



This works for creating a softlink in any folder path

- If your account has Root privileges, or you softlink from one of your own folders to another of your own folders, you do not need to use Elevated Privileges.
- On my Linux Mint computer, **~/.local/share** exists, but no fonts folder exists there. I created the fonts folder there.
- I created my personal Fonts folder softlink in that new folder. Then I ran the command **fc-cache -fv.** It worked!

What I learned about the fc-cache cataloging command

- In Linux Mint, that command appears to create a font catalog ***belonging to the account creating it***.
- Another account in the Linux computer has to **build its own catalog** using the command fc-cache -fv
- I created a new account on my Linux Mint computer. In the new account, I saw two failures.
  1. The account did not have the rights to use the sudo command.
  2. The files in /usr/share/fonts/fonts, my softlinked folder, were not visible to the new account.

What I learned about the fc-cache command

- For the fc-cache command to see the font files in /home/john/fonts via the softlinked folder /usr/share/fonts/fonts, I learned some permissions must be set in the path /home/john/fonts.
- /home must have the global x (execute) permission set – that permission usually is set by default in Debian, Raspian, Ubuntu and Linux Mint.
- /home/john (the font folder owner account on my computer) must have the global x permission set. I did that by Terminal command **chmod 755 /home/john**

What I learned about the fc-cache command

- The font folder itself must have the x bit set, i.e., **chmod 755 home/john/fonts**
- If the second user account does not have rights to execute the sudo command, then in an account that does have sudo rights, this command assigns sudo rights: **sudo usermod -aG sudo new.account.name.**
- After I did all that then, in the new user account, the terminal command **sudo fc-cache -fv** worked. All the fonts I stored in /home/john/fonts were cataloged and showed up in LibreOffice Writer in the new user account.

How to delete a font in Linux

- Find the font files to delete in your personal Fonts folder.
- Delete the font file(s)
- Open a Terminal window and type **sudo fc-cache -fv <enter>** to update the catalog or **fc-cache -fv <enter>** to update your account catalog. Do the same in other accounts using those font files.
- Finding font files installed by LibreOffice or another font-heavy app: look in **/usr/share/fonts**.
- Be careful when removing fonts you did not install. Removing them may radically change the appearance of an application or even the Linux OS itself.

THE END