

is helpful.

The upper left corner of the Add/Remove Software application window has a Search text input area. Type Scribus in the search bar and hit enter. You will see a feedback pop-up window that lets you know a search is underway. When the pop-up disappears there is still an array of options, each with a selection box to the left of its icon. I selected the one titled "Open Source Page Layout - stable branch / scribus-1.4.8+dfsg-1+b4". This causes a pop-up letting us know that the specific information about this package is being retrieved and then a package description populated the bottom center of the application window. I then clicked Apply in the lower right of the application window. A feedback pop-up appears letting us know the progress of the installation and advising us that a password authentication will be required. The default password for the user "pi" is "pi-top". When the installation is

valley fold

completed the icon to the left of the title will change in appearance to that of an open box with more saturated color. Also, a check mark will remain in the selection box. You will notice that two other packages were also installed along with Scribus. The package manager checks for Dependencies, other elements that our selection depends on and installs them too. Scribus, once installed, can be found and launched from the Graphics category of the Applications menu invoked by clicking on the lower-left hand corner of the screen in the Task Bar.

Installing Inkscape follows the same procedure as shared in the paragraph above. Begin by typing inkscape in the search bar. Again several packages present themselves. I selected the one titled "vector-based drawing program / inkscape-0.92.4-3". The precise version number may have changed by the time you follow this guide. Once again click apply and enter the password at the prompt.

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You will once again notice that several other packages are loaded along with Inkscape. I will leave a demonstration of Inkscape and the Gnu Image Manipulation Program on the Pi-Top for another zine.

The adding of typefaces on these Linux-based systems can be counter-intuitive and offputting. There are at least three different methods.

The one that is found by searching the World Wide Web involves Incantations on the command-line interface and then updating configuration files tucked away in the bowels of the folder hierarchy and then running another command-line incantation.

The one that involves using the Add/Remove Software package manager is, now, more familiar if you follow the steps above. There is a category of packages named Fonts that allows one to browse the available packages and install them directly as above. However, neither of these two methods

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Self-Documenting One-Sheet Zine

I have wanted to demonstrate to myself that it's possible to create a workflow for Desk Top Publishing on the Raspberry Pi. It is a test of the expressive potential of this particular computing platform. It's one measurement of the transformative and liberatory potential of a 35 USD Single-Board-Computer. Is the Pi (affectionately shortened) truly a general purpose computer, capable of this late 20th century task? Or is it a Froebel-like gift that will teach some lessons through the manipulation of its form but eventually exhaust its use-value? Or, further, is it a special purpose computer useful only in the Internet-of-Things-Edge-Computing-use-cases?

It came to my attention very recently that MagPi, the print magazine published by the Raspberry Pi Foundation, was produced, in part, with Scribus, a free and open-source page layout software, on Raspberry Pis. This

hill fold

means that, yes, it is possible. And so it becomes urgent for me to understand how. What are the parts that need to be assembled? And in what order? This zine is my first attempt at assembling all of the components for a workflow. What follows is an intensely detailed journal of the process.

This one-sheet zine was created on a Raspberry Pi 3B+ manufactured in 2015 which was built into a Pi-Top Laptop version in 2015 which Pi-Top has been updated to the latest Operating System for its hardware. Sirius, which is built on top of Raspbian/Debian Linux version named "Buster". This is one major version behind the current Raspberry Pi OS called "Bullseye". Sirius was flashed onto a 16 Gigabyte microSD card using another computer. Raspbian is the name formerly given to Raspberry Pi OS. Debian Linux continues to be the source for the Operating System. Debian names the version releases after characters in Pixar's Toy Story films.

valley fold

Sirius is a Graphical User Interface that has adopted many of its conventions from Microsoft Windows 10.

I have had to fight with the OS during the upgrade. This reminds me of a conversation I had several years ago with my colleague, Chris Coleman, who expressed a preference for not fighting with an Operating System as part of his creative practice. I also recall another, older, conversation with Krzysztof Lenk when he was mentoring me in assessing work by students. He taught me to observe what one does with the innate resistance of the tools and materials. Ever since then I have thought about the inertias and frictions of my creative tools, materials, and interfaces. The dialogue, the fight, becomes part of the work. This came to mind also at the end of the very long car ride to Marfa on our first trip to see the work of Donald Judd at the Chinati Foundation compound. That journey along the West Texas scrub-land is part of Judd's work.

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The initialization of Sirius OS takes some time. Set aside several hours. It will also be necessary to have a stable internet connection, either wired or WiFi. Linux operating systems presume a connection to the internet. The default username for the Sirius operating system is pi, and the default password is pi-top.

Sirius comes preloaded with the Gnu Image Manipulation Program. This is an industry-grade photo/pixel/raster manipulation program and is one component of the workflow. The capability to author/edit vector-based documents is crucial for this workflow. Inkscape is a Free/Libre Open-Source Software package for creating vector drawings. The capability to visually compose and typeset multi-page documents is another crucial component of this workflow. Scribus is a Free/Libre Open Source Software for multi-page layout and composition. A linchpin component of this workflow is high quality

valley fold

typefaces. There are now a growing number of typeface families distributed under the generous SIL Open Font License which opens the source files that underlie these digital fonts, as well as grants free permission for their use. This last bit was not the case when I first started envisioning this workflow.

Pi-Top OS Sirius and Raspberry Pi OS come with a software package manager. On Sirius is can be found in the Applications menu at the left hand of extreme of the Task Bar which is at the bottom of the screen. Clicking once invokes the menu and reveals categories of softwares available on this device. The package manager can be found in the Preferences category and is called Add/Remove Software. This is a Graphical User Interface to the remote repository of software available for installation and use with this machine. The size of the library is overwhelming and the names of the individual packages can be inscrutable. A little guidance

hill fold

affords previews and so one either has to proceed blindly or one has to have some deep knowledge of typefaces and their package names in advance.

The third way offers a potentially friendlier way forward. There exists a software package called "font-manager" that can be found in the Add/Remove Software application. Font-manager was written for the Gnome Desktop, but I have tested it with Sirius successfully. It provides a Graphical User Interface for installing, removing, and previewing fonts on your system. Font-manager, once installed, can be found and launched from the Accessories category of the Applications menu.

A useful repository of SIL Open Font Licensed typefaces is available on the web at <https://fonts.google.com/> it provides previews and affords downloading of fonts in either True Type Format (ttf) or Open Type Format (otf) both of which are cross-platform compatible and can be loaded by font-manager. Yes, this is a service of the (formerly, don't be) evil megacorp. This is a situation where they are doing something culturally useful with their resources and are aggregating and disseminating the work of small boutique foundaries, as creative studios that make fonts are still called. The typeface for this 'zine is News Cycle which is a loving re-creation of News Gothic, which was originally created for newspaper want ads that needed to be legible in tight columns and small sizes.

To find and load News Cycle I opened the Chromium web browser that comes preloaded on Sirius OS and Raspberry Pi OS. I entered the URL for fonts.google.com and entered News Cycle into the Search bar. And then I clicked on the Download Family button in the browser window. The font will download as a .zip archive.

Actually, I found News Cycle as I was browsing sans serif font samples on the website, looking for highly legible faces that were narrow. This 'zine has some very tight column widths and this text is already very wordy. I downloaded a number of fonts that met the technical needs of this 'zine and which felt "human". Files downloaded through Chromium are placed in a folder called Downloads by default. There is a file-browser window available on Sirius called File Manager PCManFM and it's icon is available on the task bar. When invoked it will pop open a window with a set of folder icons. Double-clicking on Downloads will reveal the contents of this directory. You can then right-click on the .zip archive to invoke a pop-up menu of options. Select "Extract To..." which will invoke an interface window for the Archiver application. Type "/home/pi/Downloads/" into the destination prompt bar. Make sure that "Ensure A Containing Directory" is checked. This will place the extracted files into an appropriately named folder. News Cycle has two variants and so the folder will contain two .ttf files and one OFL.txt file with the license that permits our use.

Invoke Font-Manager from the Accessories category of the Applications menu. It calls up a window with a set of actions across the upper menu bar above a "rainfall" preview of the first font already loaded on your system. The + icon will open a file browser with directories/folders along the left-hand side. Click on the icon for Downloads and the folder for News Cycle will appear to the right of the list of directories. Select that folder and click on the Open button in the lower right-hand corner of the file browser window. The News Cycle folder icon will be replaced by the list of the folder contents: NewsCycle-Bold.ttf and, NewsCycle-Regular.ttf. You can shift select or type ctrl-a to select all the files and then click the Open button in the lower-right hand corner. This will bring back the preview window. You can either scroll through the list or search by name to call up previews of fonts.

As my word count continues to grow it makes sense to share that I am writing these steps in an application called Mousepad which is a lightweight text editor included with Sirius OS. We also have access to the Libre Office suite pre-loaded, but I don't need a full-featured word processing application to write these paragraphs.

Also, in the struggle and tussle with the operating system, I lost at least one full day of effort when I tweaked a setting on my display resolution and was left with an unresponsive black-screen-of-death. I had a first-draft this text and completed layout in Scribus. I tried to edit configuration files on another computer, reading the system microSD card like an external drive

to no avail. I had to re-flash the microSD card with a fresh copy of Sirius and start over from scratch. At that point I chose to use a 128 GB USB thumb-drive as an external disk to use for my working files. Sirius was designed for the Pi-Top [4] with the new Raspberry Pi 4 Single-Board-Computer. There has been a period of adjustment as the operating system recalibrates for the older specifications of my Pi-Top. There was a moment when Sirius signaled system updates available and the entire visual interface changed. So far so good.

This one-sheet 'zine is composed for/on a US Letter-sized sheet of paper measuring 8.5 inches wide by 11 inches tall, known also as ANSI A format. When folded, trimmed, and folded again, the resulting pages of the 'zine are 2.75 inches wide by 4.25 inches tall.

When one opens Scribus one is presented with an interface for setting document parameters. Scribus comes with millimeters as the default units of measure. This setting is tucked in the lower-right of this window. The paper/page size is along the upper-right. For the sake of simplicity I have left the document type to be single-sided pages. If this had been a more traditional book form then selecting double sided pages would be the correct choice. I chose 0.25 inch margins all around for ease of measurements. The document is 2 pages long.

After accepting these settings the next task is to Edit Styles to set the Default Character Style to News Cycle, 9 points in size. Then set the default paragraph style to 12 points of leading (the space between lines) and to take Default Character Style as its Character Style basis. I also set the first-line indent to 0.25 inches, which is more than necessary but echoes the other spatial decisions to come.

Next edit the master pages. The word "master" here is a relic and it should be changed to "model" or "matrix". It could also be "template" but it could be confused for Template documents at a higher scale of complexity. Matrix would be a good word since document pages will inherit their forms from them. Edit / Master Pages brings up a dialogue window and changes the mode of the main application window. Any element you add to the page will now appear on every page of the document. I added guides for placement of lines that indicate folds and cuts. I also added guides for the placement of Text Frames. Editable text frames have to be placed after creating/editing master pages. One cannot edit the content of text frames from master pages in the normal document pages. The text frames for this document were manually place and rotated, and then linked so that the text would flow in the correct order. Each text frame on page one is 2.25 inches wide by 3.75 inches tall. The text frame on page two is 8 inches wide and 10.5 inches tall and is given the attribute of two-columns in the Windows / Properties inspector window, under the Text tab. A gap of 0.5 inch has been defined between the columns in the same tab.

Once the text frames were in place and linked, right-clicking invoked a context-sensitive menu with an option to Get Text. That menu item called up a file browser window. Since this text was written in a simple text editor no fussy filtering was necessary. Clicking on the file name and then clicking Okay completed the interaction, closed the file browser window and populated the linked text frames with this text.

A zipped archive of this project is available for download at <http://rafaelfajardo.com/one-sheet.zip> so you can have your own template for self-documenting one-sheet 'zines craftable in Scribus. Maybe you will also endeavor to craft on a Raspberry Pi. Maybe we can one day have an Open Hardware printer to complete the means of production. Maybe one day we can have transistors, micro-processors, and batteries that don't rely on extractive capitalist colonialism for their raw materials.

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