

TadPath Diagnostic Histopathology Services

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Installation Guide for AppendIm v1.0 for MS Windows

(Dr P. J. Tadrous 12/04/2020)

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Introduction

‘AppendIm’ is a simple ‘drag-and-drop’ batch script I wrote to allow you to easily make a single jpeg image from multiple images. ‘AppendIm’ is free software. I hereby place it in the public domain. It is provided ‘as is’ with no warranty whatsoever.

The script uses the program 'ImageMagick' to do the actual appending. ImageMagick is free and open source and works on Windows, Unix, Linux, MacOS, iOS and Android. However, the drag-and-drop script here is only for MS Windows.

The script download folder is encrypted to prevent MS Windows from corrupting the files during download. Therefore you cannot use the standard MS Windows extraction (decompression) facility to extract the compressed files and so you must also install the free ‘7-zip’ software package.

STEP 1: Install ImageMagick and 7-zip

1. ImageMagick: Go to the ImageMagick website download page (the link is on the TadPath COVID-19 page and also below) and install the Windows version according to your system (32 bit or 64 bit) as per the instructions given there:

<https://imagemagick.org/script/download.php#windows>

(Hint: You may find the ‘static’ versions are less problematic compared to the ‘dll’ versions if you tried the ‘dll’ version and encountered problems).

2. 7-zip: Go to the 7-zip download page (link below and on the TadPath site) and download and run the automatic installer for your system (64 or 32 bit).

<https://www.7-zip.org/>

STEP 2: Install the ‘AppendIm’ batch Script

2.1. When you download the zipped file from www.tadpath.co.uk. Assuming you download it into your ‘Downloads’ folder it should look something like figure 1 (note I have previously downloaded the ImageMagick and 7-zip installers as per ‘STEP 1’ above and installed them).

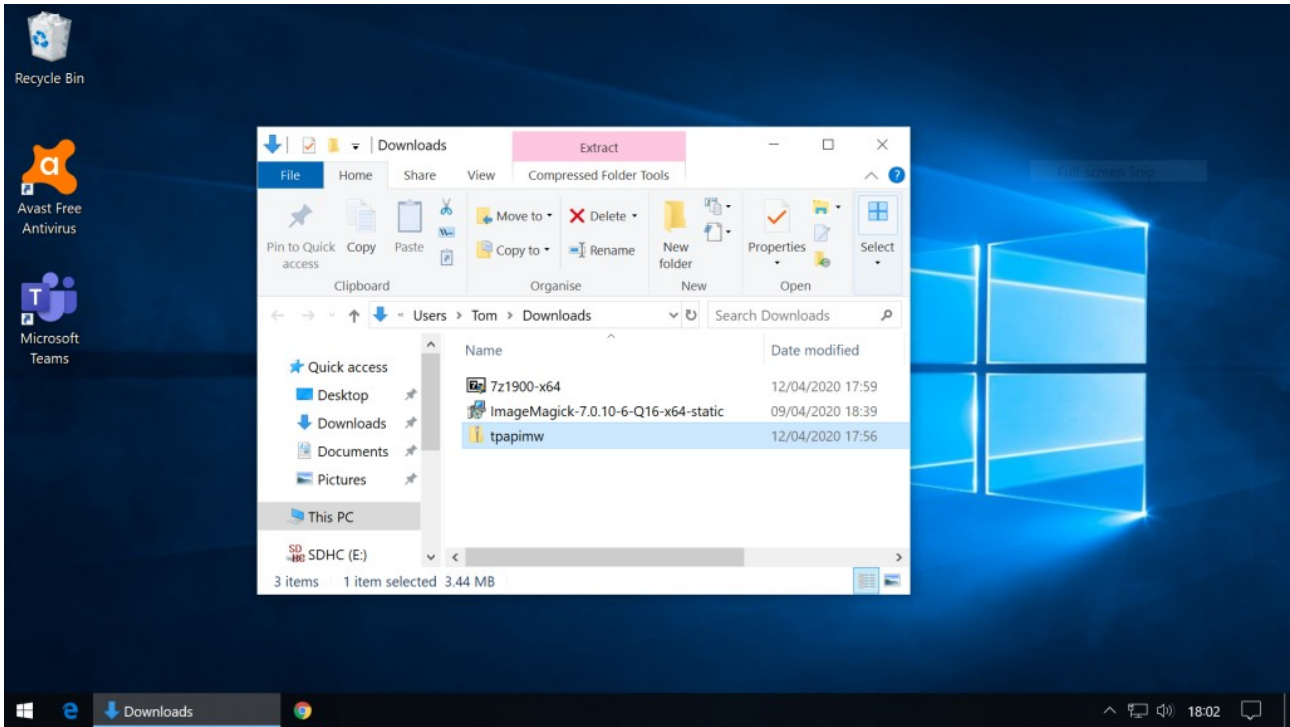


Figure 1. Downloaded files. ImageMagick and 7-zip should have been installed prior to following the rest of this guide. The file ‘tpapimw’ (also called ‘tpapimw.zip’) is the compressed folder you should have download from the COVID-19 page of www.tadpath.co.uk.

2.2. Uncompress and decrypt the tpapimw file using 7-zip (do NOT use the Windows 'Extract' function which will be offered to you by Windows). Do this by RIGHT-click on the tpapimw file to bring up the menu, then select 7-zip → Extract to "tpapimw\" options (see figure 2). Enter the password 'password' (without quotes) when prompted, as shown.

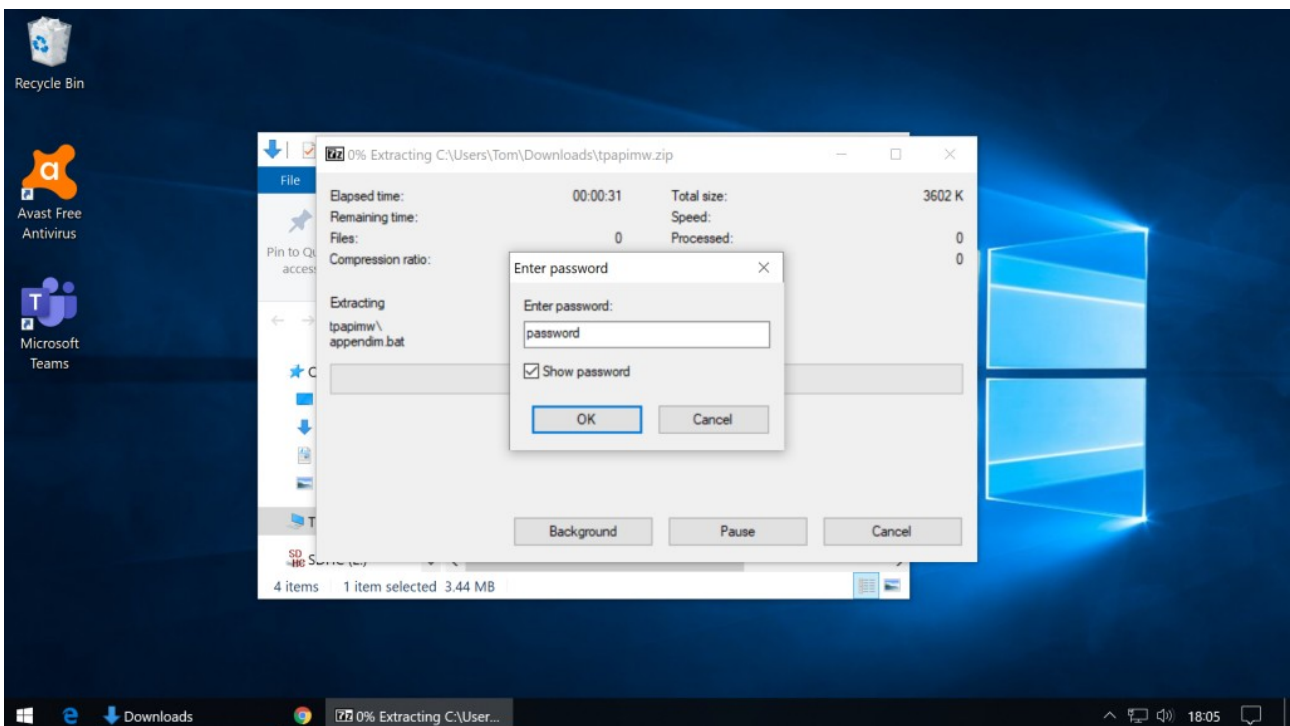
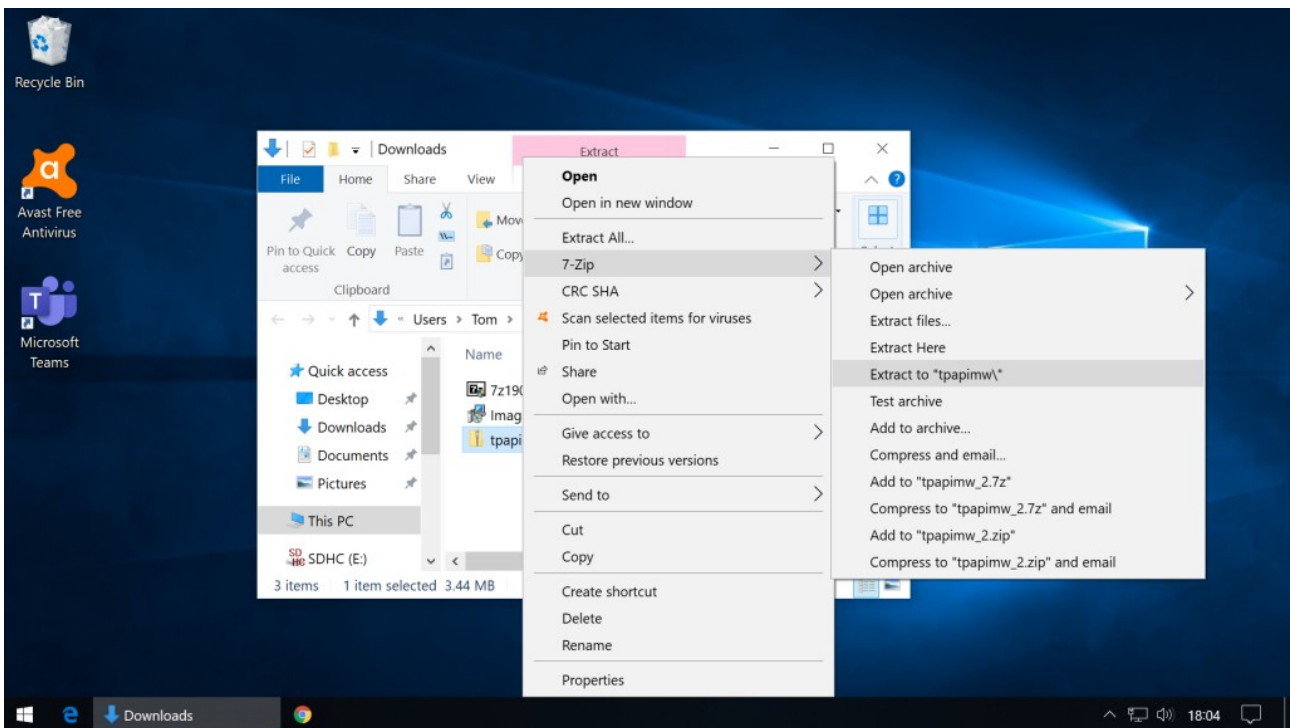


Figure 2. Right click on 'tpapimw' to bring up the menu then select the 7-zip options shown. The password for decrypting is: **password**

2.3. Open the extracted folder (also called tpapimw). In it you should see 3 files and 1 folder as shown in figure 3. The files are called 'appendim' (or 'appendim.bat' – this is the batch script), 'Installation' (or 'Installation.pdf' – this instructions file), 'ReadMe' (or 'ReadMe.txt' – a plain text version of this instruction file containing some additional technical information for those who want to modify the script) and the folder is called 'TestImgs' (this contains the test images you will soon use to test the script is working).

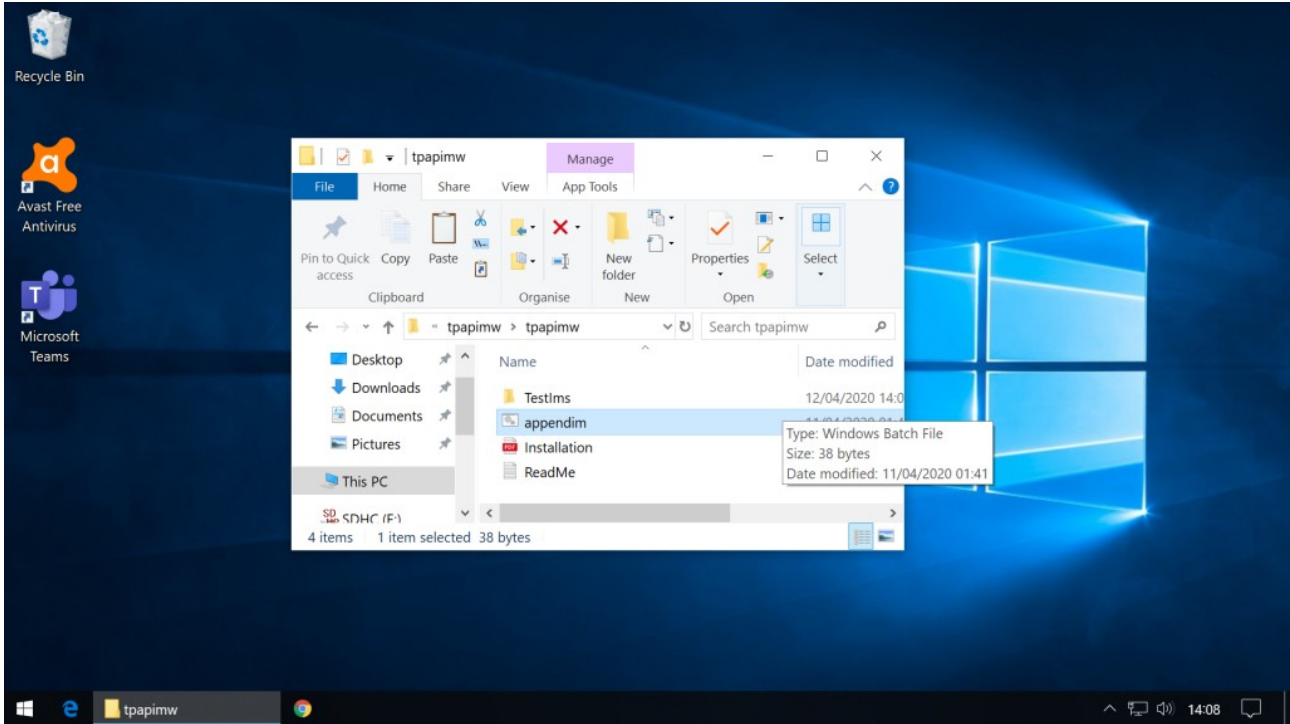


Figure 3. Find the 'appendim' ('appendim.bat') file.

2.4. Copy the file 'appendim' (or 'appendim.bat') onto your desktop. You can simply drag and drop it there. (Be sure to copy or move the actual file, do not make a shortcut). See figure 4

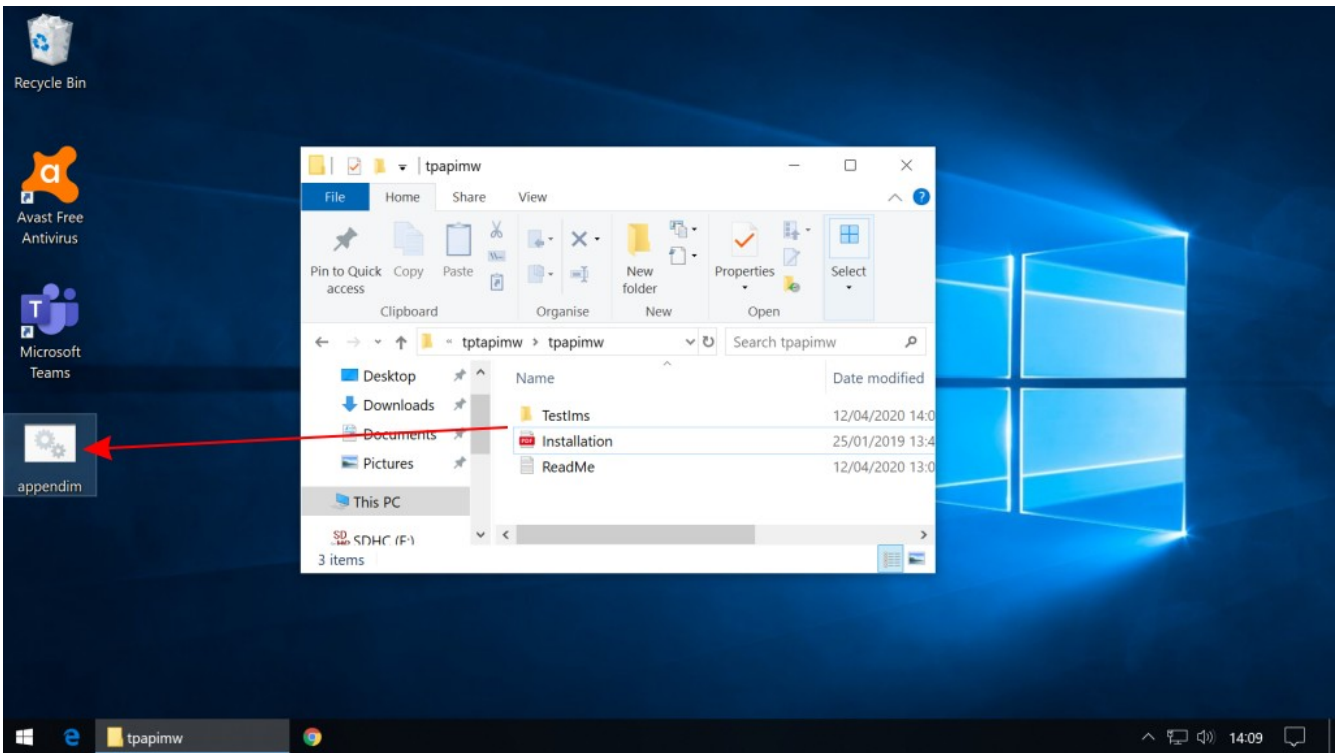


Figure 4. Drag the 'appendim' ('appendim.bat') file to the desktop to move it there.

STEP 3: Test It Works

3.1. Open the folder called ‘TestIm’s and select all the images in there, then drag the whole selection on top of the ‘appendim’ file icon on the desktop (see figure 5). Only let go of the mouse button when the ‘appendim’ icon gets highlighted (to show that it is ready to accept the files). You may need to move the mouse around a bit to ‘hit the spot’ which causes the icon to highlight.

If you are unfortunate enough to have MS Windows display a popup window asking if you want to ‘search for an app in the store’ – just click ‘No’ and it will work just fine. Despite what the popup window tells you, you do **not** require any additional app to work this. I have no idea why Microsoft imposes this inconvenience on you but I don’t know how to stop that annoying behaviour.

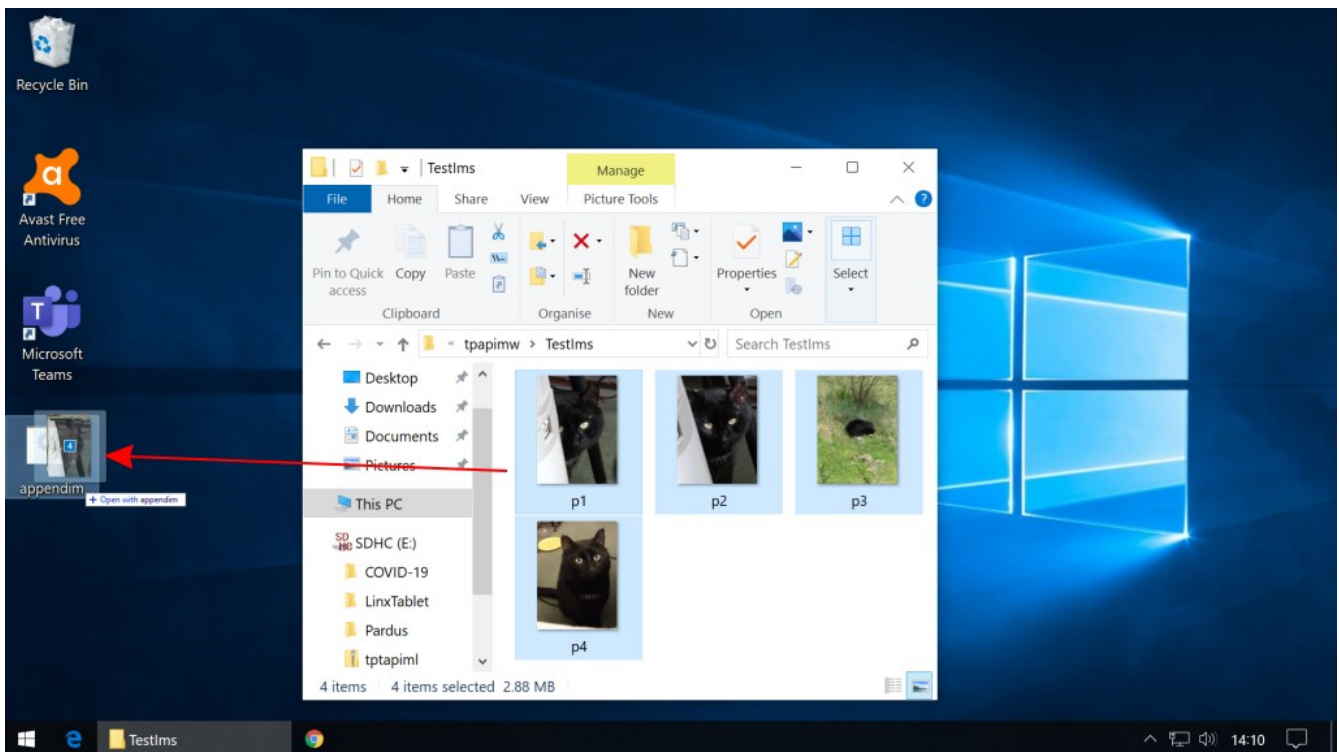


Figure 5. Select all image files you want to append and drag the selection to the ‘appendim’ icon on the desktop. Only let go when the ‘appendim’ icon gets highlighted.

3.2. If all goes well, a command prompt will pop-up and perform the appending using ImageMagick automatically then close again. At which point you should see the result image called 'allpages' (or 'allpages.jpg') in the same folder as the original separate page images (see figure 6).

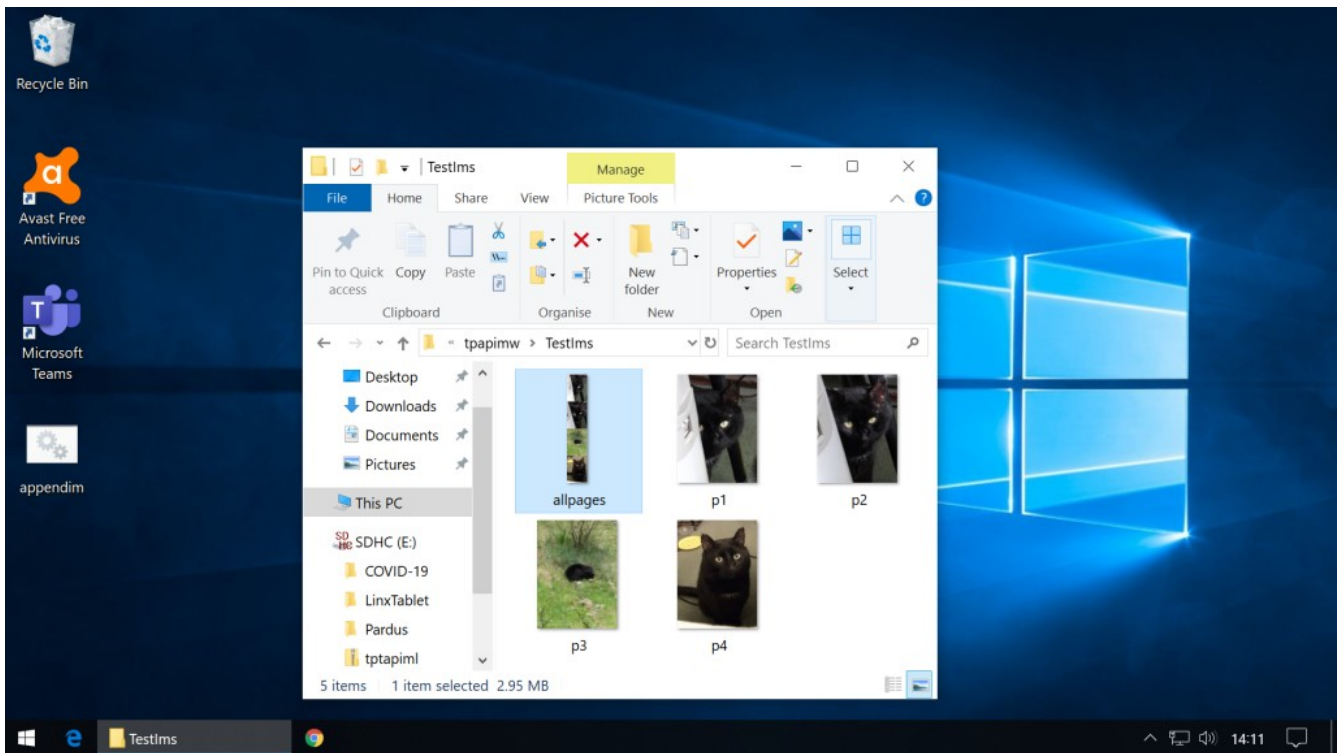


Figure 6. If it works, you will see the newly created 'allpages' file – open and view it to check.

3.3. Open the resulting 'allpages' jpeg file with whatever default image viewer you use to check it has worked correctly.

Notes on Usage and Troubleshooting

If you got this far and it works with the test images you're all set to start using it with your own images. Here are some general points of advice re usage:

* Page Order

If the multi-page image shows the pages in the wrong order this could be because your folder is not sorting files in name-order. To fix this, place the mouse cursor anywhere in the folder that is not over a file and right click to bring up the folder menu. Select 'sort' -> 'by name'. Of course, for this to work, the actual names of your page image files must also be chosen such that they are in alphanumerical order – see point on 'Image File Names' below.

* Resolution:

When scanning and saving pages as individual images try to use the lowest resolution at which you can easily read all print - otherwise you could end up creating huge multi-page JPEGs with problems for uploading and opening at the other end.

* Image File Names:

- When saving your individual pages use file names with a sequential page number at the end of the name and avoid spaces in the names. For example: p1.jpg p2.jpg p3.jpg (NOT 'page 1.jpg', 'page 2.jpg', etc.).
- If you are going to scan more than 9 pages, use double digits from the start with a prefixed '0': p01.jpg, p02.jpg, etc.
- Use simple consistent page names, do not use descriptive page names (so stick to p1.jpg, p2.jpg, p3.jpg, etc. but AVOID 'Front_1.jpg', 'Back_2.jpg', etc.)
- Failure to adhere to the above rules may result in problems with pages being appended out of order or the script not working at all.

* **ImageMagick** can handle other input formats and the format of the input images need not all be the same, so you could use tiffs or png files as input pages. The output will always be jpeg regardless.

* Caution 1:

The drag-n-drop script is very simple and does not do any checking. You should **always** check the final image to ensure it has all required pages in the required order and that they all pertain to the same patient/subject. If you accidentally drag pages from one subject together with pages from another subject the script will happily append them all together for you - it has no intelligence. That's your responsibility.

* Caution 2:

You should delete the individual pages once you have your multipage image to avoid the risk of combining pages from multiple subjects accidentally. Use whatever secure deletion mechanisms you need to satisfy your data protection SOP requirements.