

8. Optimizing Your Vault

As your vault grows, so does the number of broken links, unused images, and other artifacts. Luckily for us, the awesome community has come up with different plugins that aid in our optimization efforts.

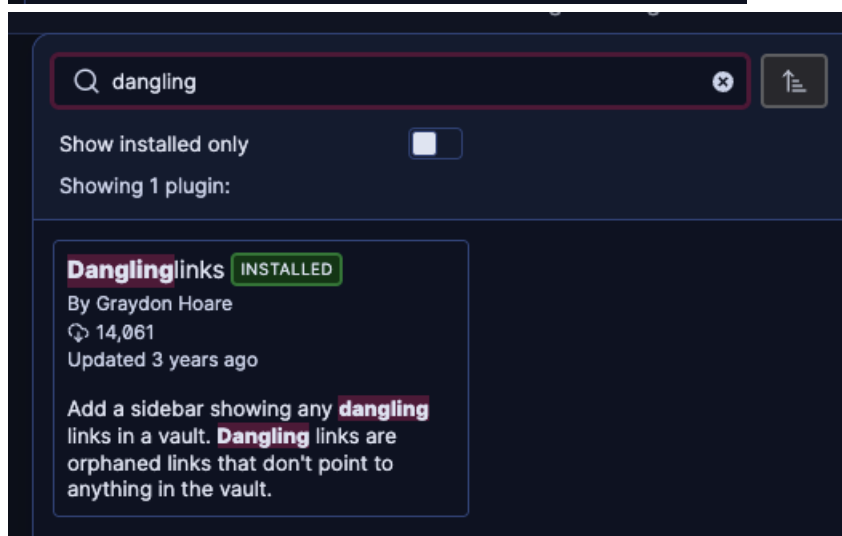
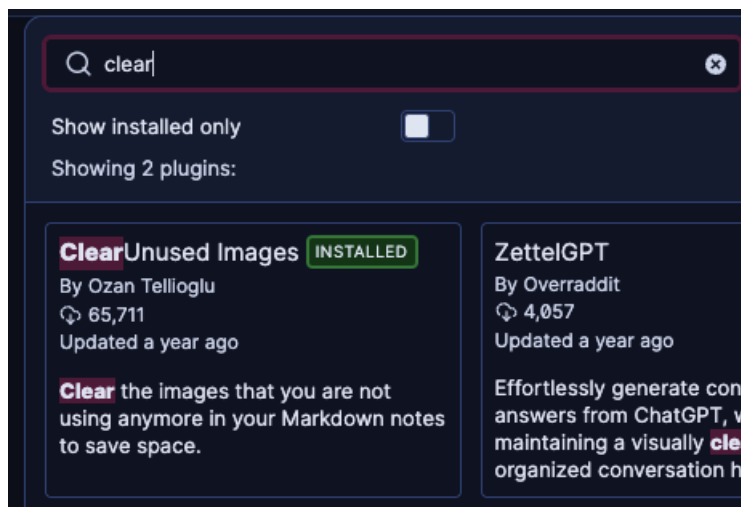
In this section, you will learn how to maintain an optimized vault with minimal effort.

8.1 Plugins Needed for This Methodology

1. **Clear Unused Images:** [Clear Unused Images](#) scans your attachments folder for images that are not linked to any note. This is very common when you paste a screenshot, delete it and paste another one since you are only deleting the link and not the image itself.
2. **Dangling Links:** [Dangling Links](#) scans your whole vault for links that point to a nonexistent note. This could happen due to spelling mistakes or creating links and forgetting to create the note.
3. **Janitor:** [Janitor](#) scans your vault for orphan notes (notes with no links), empty files, big files and more.
4. **Linter:** [Linter](#) the note formatting plugin that keeps reappearing, also has the capability of formatting all notes within a directory with a few clicks.
5. **Local Images:** [Local Images](#) can scan your whole vault for image URLs, download them to your "Attachments" directory, and replace them for locally stored images.
6. **Tag Wrangler:** [Tag Wrangler](#) scans your whole vault and allows you to manage your tags. I already explained how to use this plugin in the [Metadata](#) tutorial.

8.2 How to Implement This Methodology

Start by installing all plugins as usual.



Show installed only ☐

Showing 1 plugin:

Janitor INSTALLED
By Gabriele Cannata
📥 27,195
Updated a year ago
Perform cleanup tasks on your vault.

Show installed only ☐

Showing 2 plugins:

Linter INSTALLED
By Victor Tao
📥 405,309
Updated a month ago
Format and style your notes. **Linter** can be used to format YAML tags, aliases, arrays, and metadata; footnotes; headings; spacing; math blocks; regular Markdown contents like list, italics, and bold s...

Safe FilenameLinter
By sneaky-foxes
📥 3,651
Updated a year ago
Lint filenames for invalid or troublesome characters.

Show installed only ☐

Showing 3 plugins:

Localimagesplus
By catalysm, aleksey-rezvov, Sergei Korneev
📥 41,988
Updated 8 months ago
A reincarnation of **Local Images** to download **images** in Markdown notes to **local** storage.

Localimages INSTALLED
By catalysm, aleksey-rezvov
📥 32,139
Updated 3 years ago
Find all links to external **images** in your notes, download and save **images locally**, and adjust the image links in your notes to point to the saved image files.

Show installed only ☐

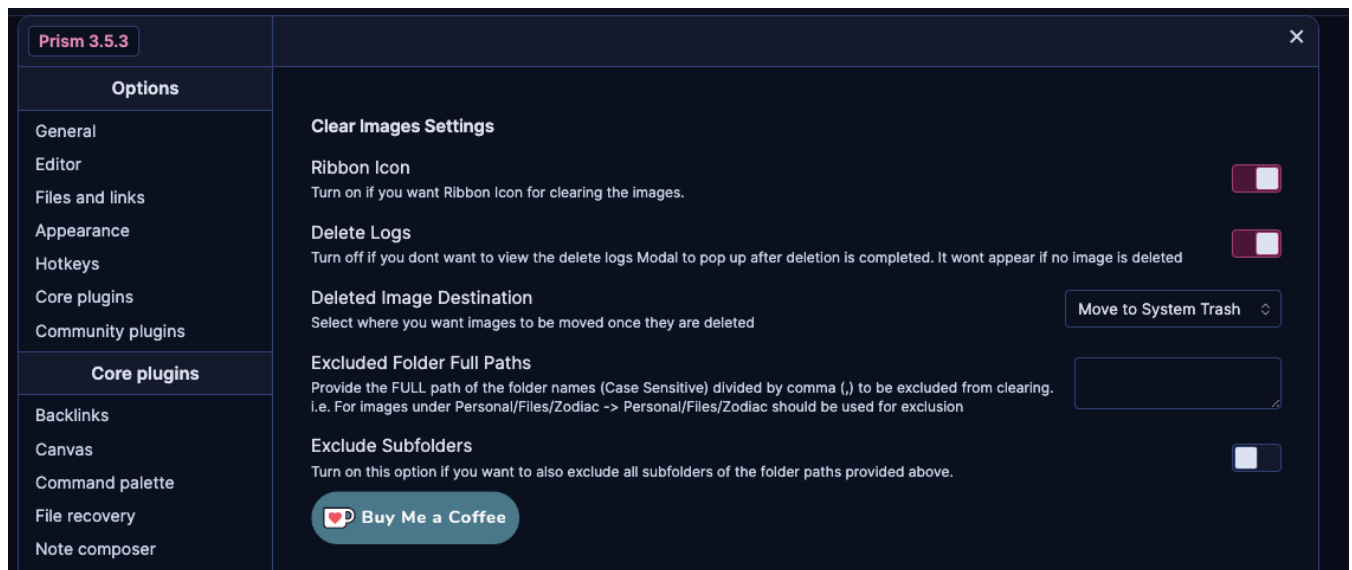
Showing 2 plugins:

TagWrangler INSTALLED
By PJ Eby
📥 511,826
Updated 9 months ago
Rename, merge, toggle, and search **tags** from the **tag** pane.

ColoredTagsWrangler
By AndreasSasDev
📥 10,684
Updated 9 days ago
Assign colors to **tags**. Has integrat with other plugins, like Kanban.

8.2.1 Clear Unused Images

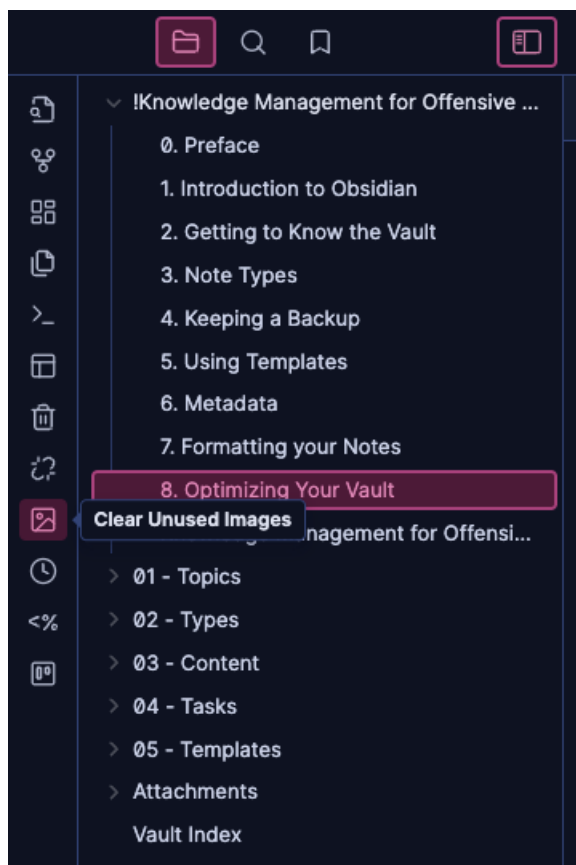
My settings are as follows:



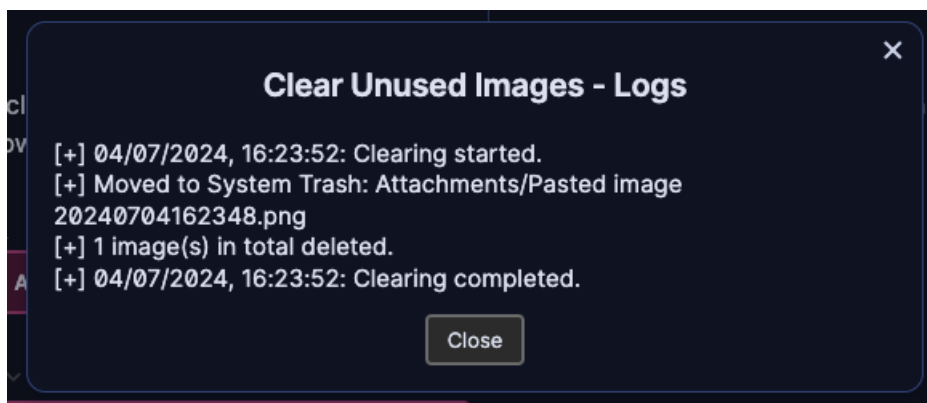
I like deleting images to my computer's trash as a failsafe if the plugin malfunctions. At this point I have never experienced this problem, but you never know.

8.2.1.1 Removing Unused Images

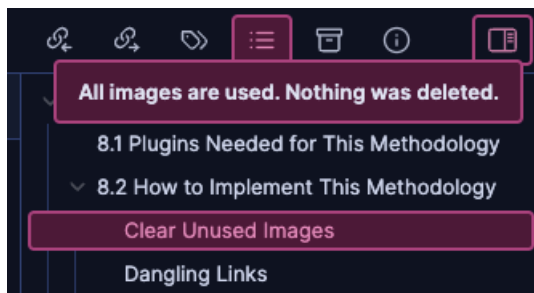
Now that you have installed this plugin, you can find its new icon on the left dashboard.



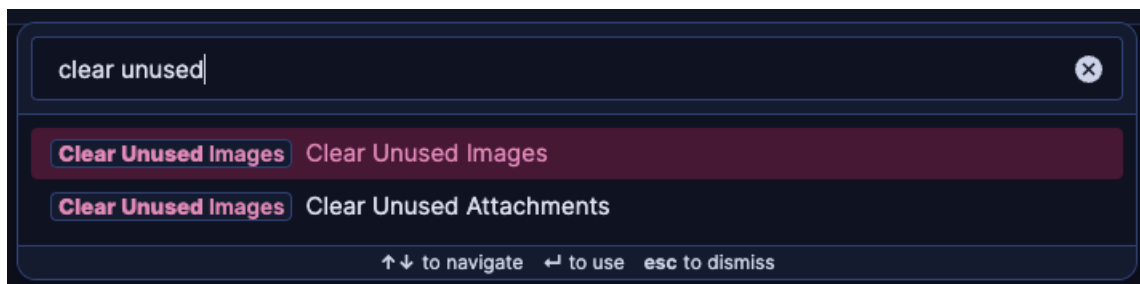
Upon clicking the icon, a pop-up will show you how many unused images were found and deleted.



If no images were found, a pop-up will appear at the upper right corner of your screen to notify you.



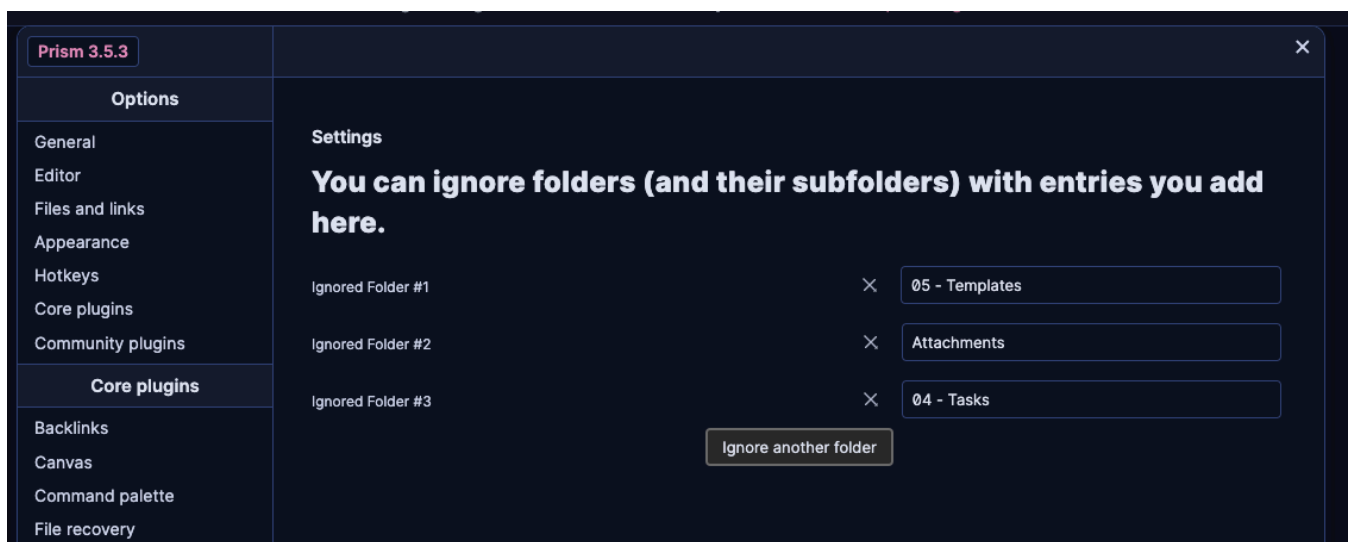
This plugin also has a feature to remove unused attachments. You can check it out by opening up the command palette with `Cmd + P` or `Ctrl + P`. I personally have never used this feature, but it is good to know that the option exists.



Always remember to check the command palette upon installing a new plugin to view available commands.

8.2.2 Dangling Links

These are my settings:



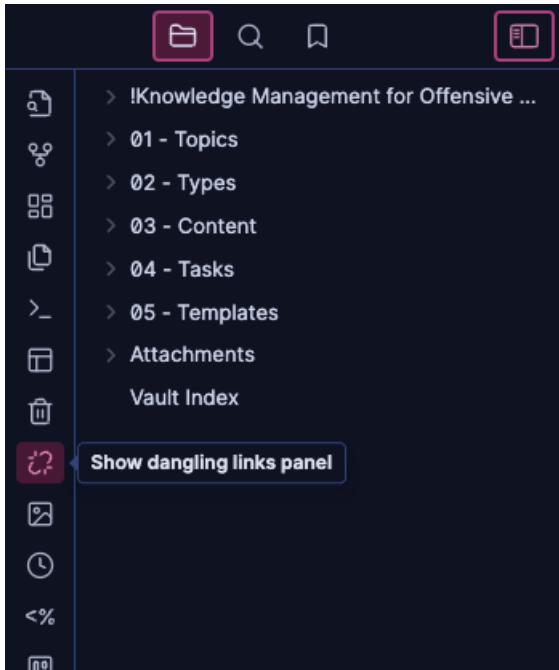
Basically, you want to ignore folders that contain special notes or files which you do not want the plugin to check. In my case, I don't need the plugin to check my templates, attachments, or special notes from my "04 -

Tasks" folder.

If you have other miscellaneous folders where arbitrary files are stored, make sure to ignore them as well.

8.2.2.1 Fixing Broken Links

Similar to Clear Unused Images, Dangling Links has a new icon that appears on the left dashboard.



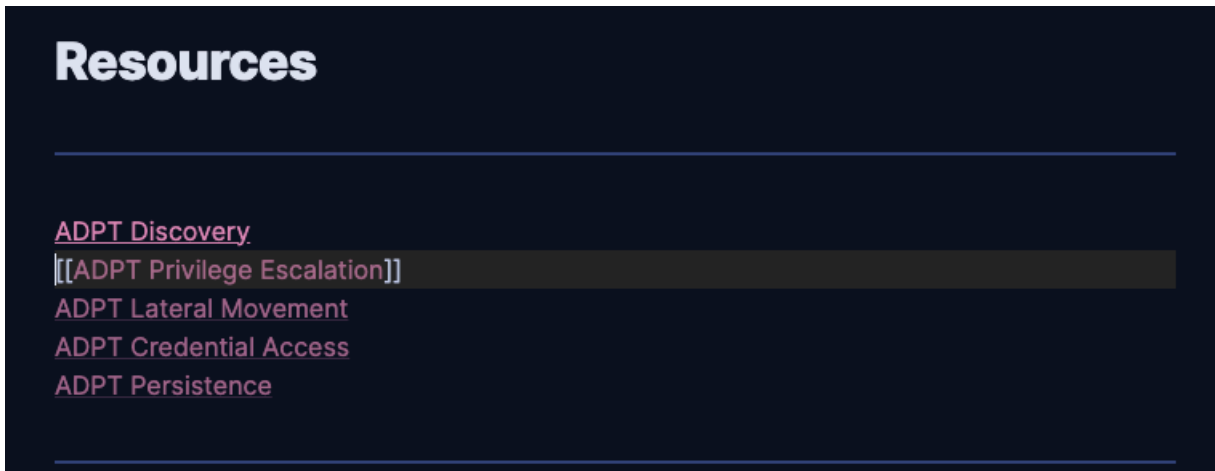
Upon clicking it, the right dashboard gets split into two, with the lower portion dedicated to dangling links.



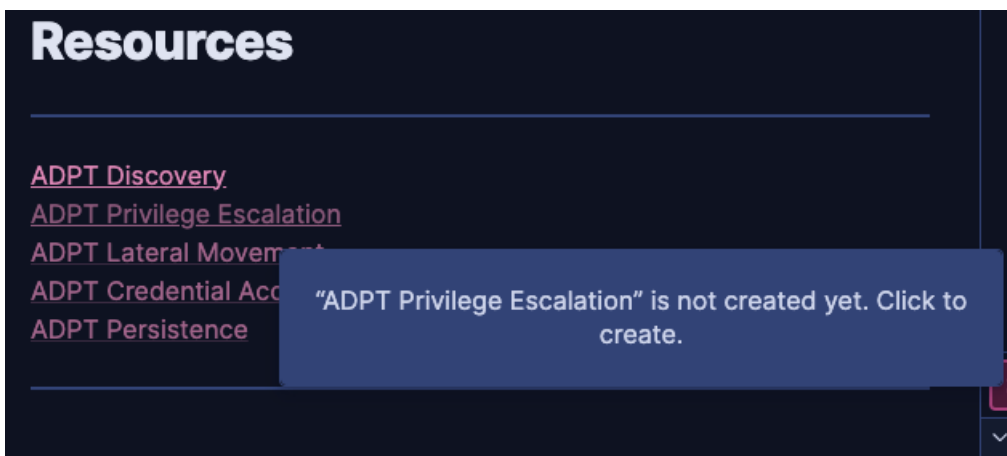
When dealing with this plugin, I like to start by collapsing all different occurrences. This makes it easier to understand and read what is going on. Since this vault has only one note with dangling links, this step is not really necessary.

In this case, the plugin is showing me that the note [Active Directory Penetration Testing Methodology Cheatsheet](#) has four dangling links (notes that point to non-existent notes).

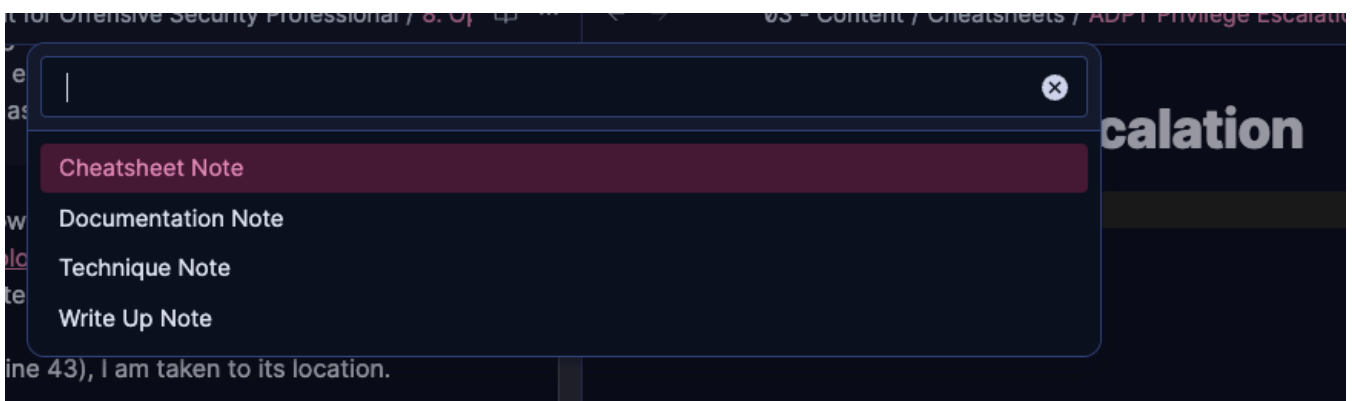
By clicking on the first link (Line 43), I am taken to its location.



The next step is to create the note, which can be done by clicking on the link.

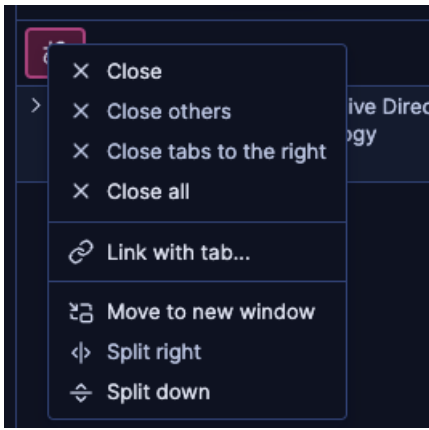


When I click on it, Templater triggers and starts executing our [Note Generator](#).



At this point, I would choose the right *note type* and start filling in my new note.

After you are done using Dangling Links, you can close its tab by right-clicking it and clicking on *Close*.



8.2.3 Janitor

These are my settings:

Prism 3.5.3

Options

General

Editor

Files and links

Appearance

Hotkeys

Core plugins

Community plugins

Core plugins

Backlinks

Canvas

Command palette

File recovery

Note composer

Page preview

Quick switcher

Templates

Community plugins

Admonition

Auto Glossary

Auto Link Title

Clear Unused Images

Codeblock Customizer

Dangling links

Dataview

Footnote Shortcut

Image Toolkit

Janitor

Kanban

Linker

Janitor Settings

Add Ribbon Icon

Adds an icon to the ribbon to launch scan

Run at Startup

The plugin will perform a scan automatically everytime you open a vault.

Ask Confirmation

The user will be able to select which files to remove

Always Prompt for big files

Always prompt before deleting big files

Process Orphans

Remove media and attachments that are not in use

Process Empty

Remove empty files or files with only whitespace

Process Big Files

Removes files with big dimensions

File Size Limit (KB)

Files larger than this size will be considered for removal.

1024

Process Expired

Remove notes that have expired

Expiration Processing

Metadata Attribute

The frontMatter key in which to search for expiration date

expires

Date Format

The format in which the expiration date is stored (e.g. YYYY-MM-DD)

YYYY-MM-DD

File Exclusions

Ignore Obsidian Excluded Files

Does not process files matching the Excluded Files filters in Obsidian Settings

Excluded Files

Excluded files will not be processed

• 05 - Templates/
• Attachments/

Manage

Clear Unused Images

Codeblock Customizer

Dangling links

Dataview

Footnote Shortcut

Image Toolkit

Janitor

Kanban

Linker

File Exclusions

Ignore Obsidian Excluded Files

Does not process files matching the Excluded Files filters in Obsidian Settings

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Excluded files will not be processed

• 05 - Templates/
• Attachments/

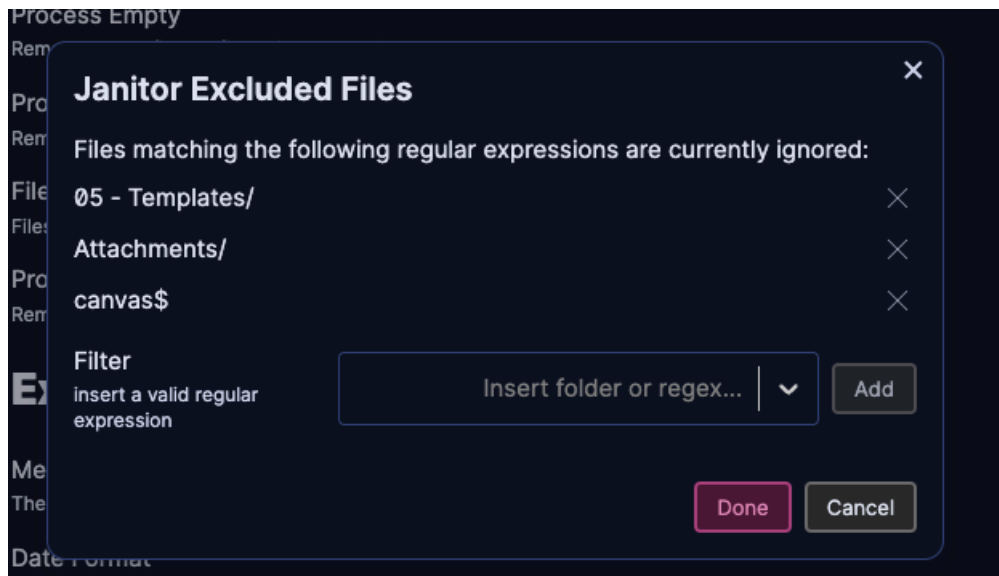
Manage

These options are self-explanatory, but the most important one is *File Exclusions*.

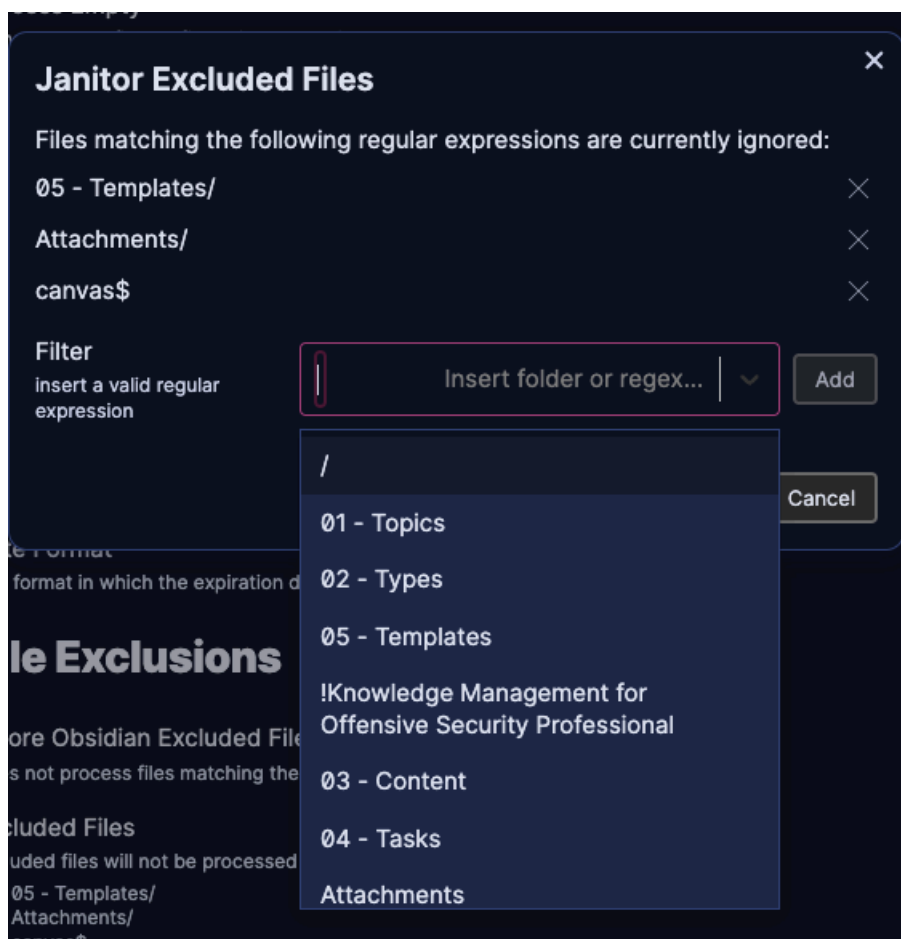
You want to ignore your Templates and Attachments folders since these two contain special notes and files which could trigger false positives. You should also create an exclusion for `.canvas` files, or these will show up as orphans.

If you have other miscellaneous folders where arbitrary files are stored, make sure to exclude them as well.

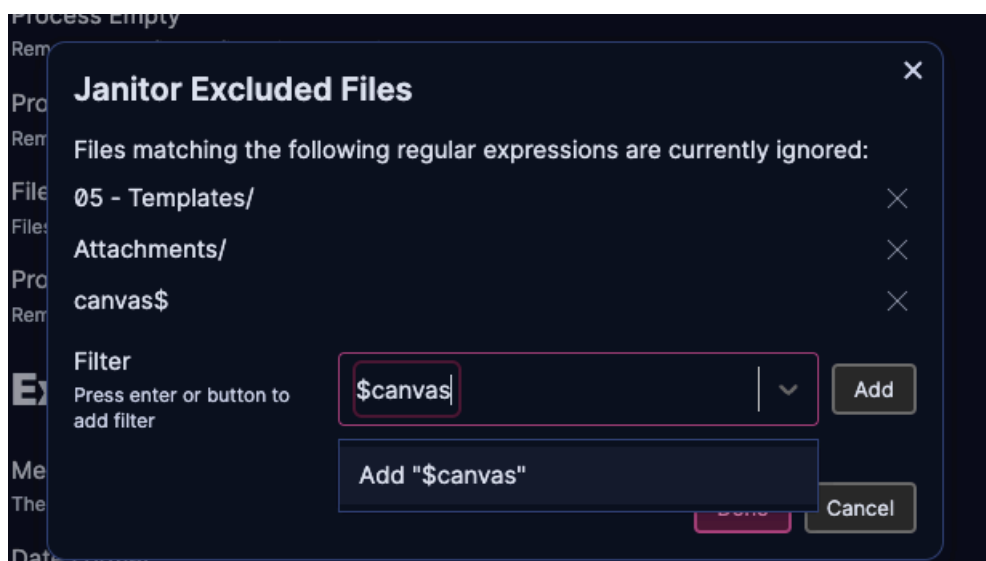
To add file and folder exclusions, click on *Manage*.



In the *Filter*, select your desired folders by clicking on the arrow. Choose the appropriate folders and remember to click on *Add*.



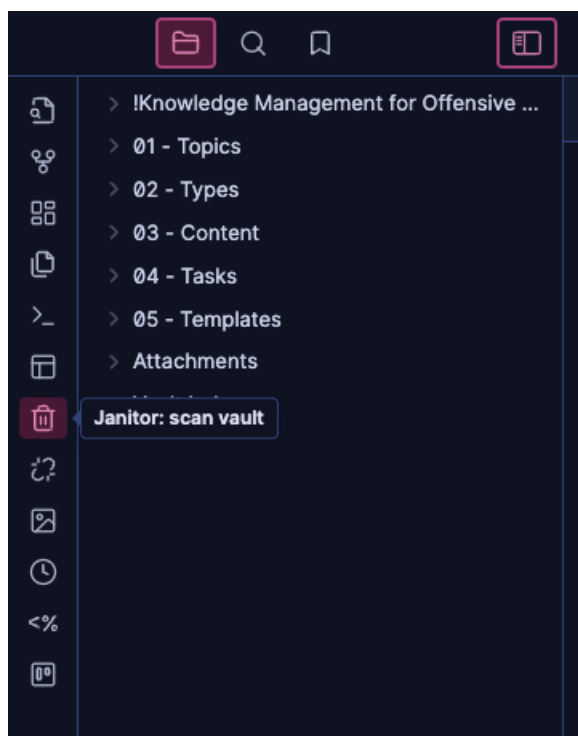
Now we need to ignore canvas files using [regular expressions](#). To ignore canvas files, click on the "insert folder or regex..." prompt and write `$canvas`. Then click on *Add* "`$canvas`" and *Add*.



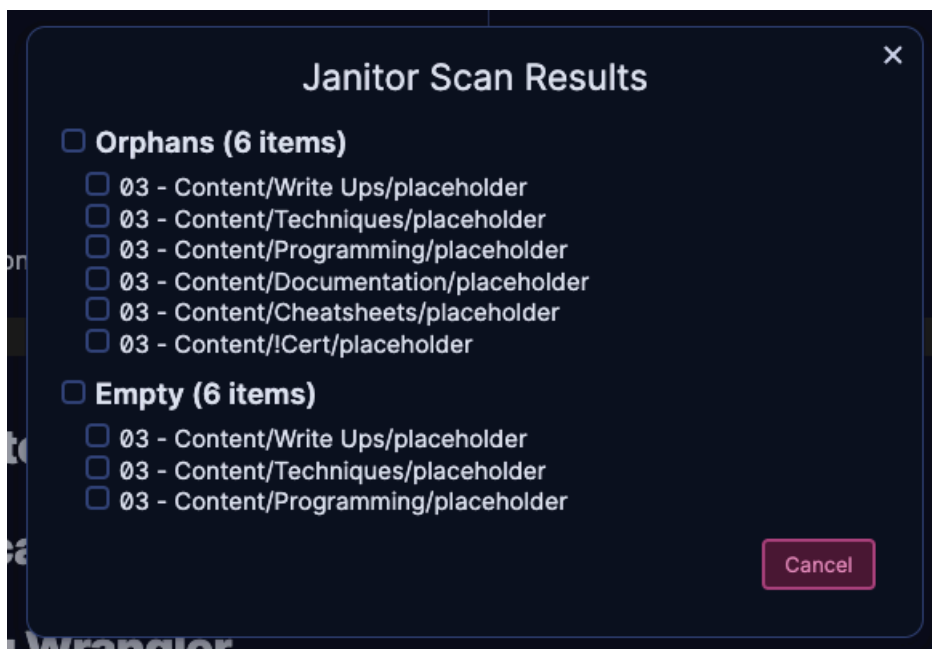
You could potentially ignore other file formats using regex.

8.2.3.1 Removing Offending Files

Janitor also has a new icon that will show up on your dashboard.



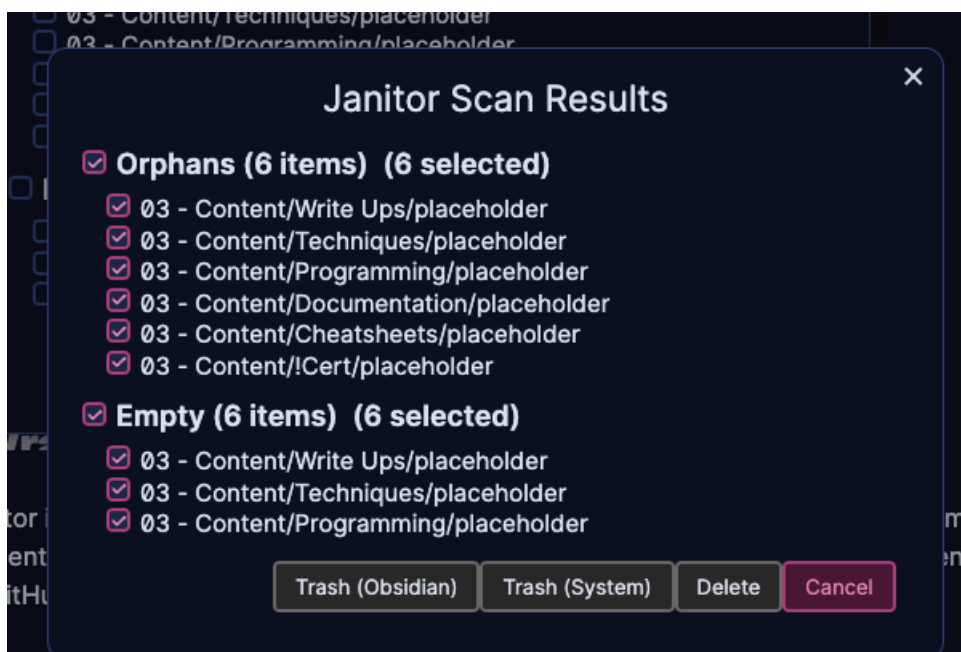
Click on it to scan your vault.



Janitor is telling me that those files are orphans (no notes link to them) and also empty (no contents). In this case, I would leave it as is because folders cannot be empty when pushing to GitHub^[1].

In your case, if you find orphans or empty files, you can select them and click on any of the removal options.

Remember to double check any matches because you might have simply forgotten to link the offending note and could potentially lose your work.

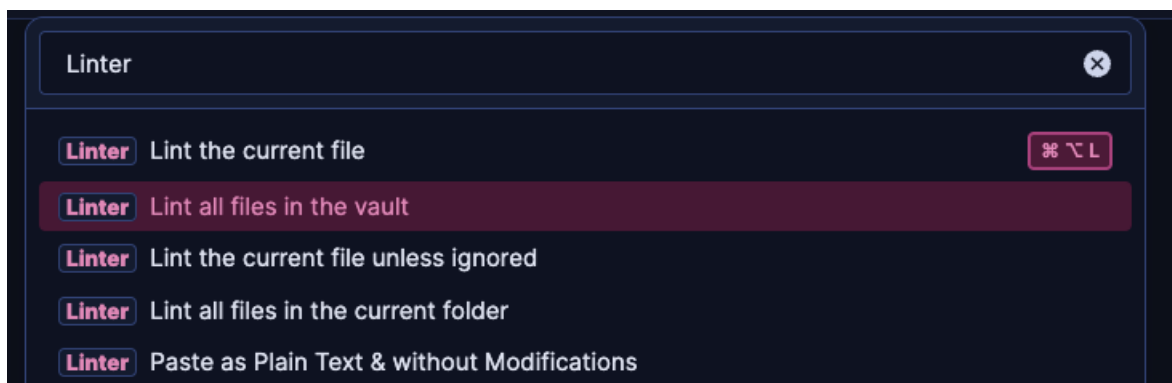


8.2.4 Linter

We have already discussed Linter in [6. Metadata](#) and [7. Formatting your Notes](#). We are revisiting Linter because of its capability to lint (format) all files in your vault or current folder with one click.

Be very careful with these options and perform vault backups (and system backups) on a daily basis.

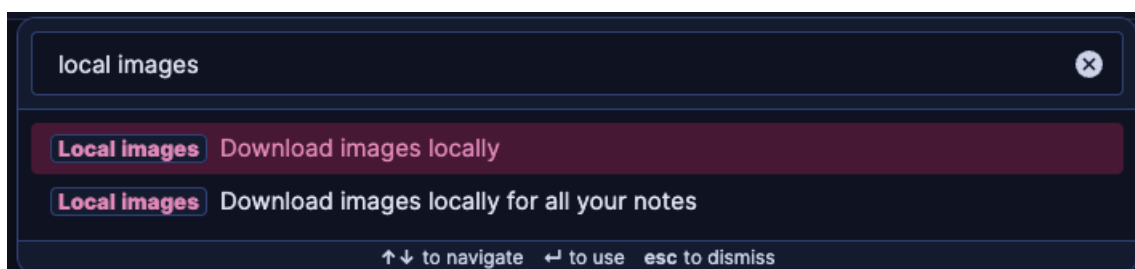
The following picture shows the command palette (`Cmd + P` or `Ctrl + P`) options for Linter.



8.2.5 Local Images

We already discussed Local Images in [7. Formatting your Notes](#). Local Images is also capable of downloading all images within your vault with one click.

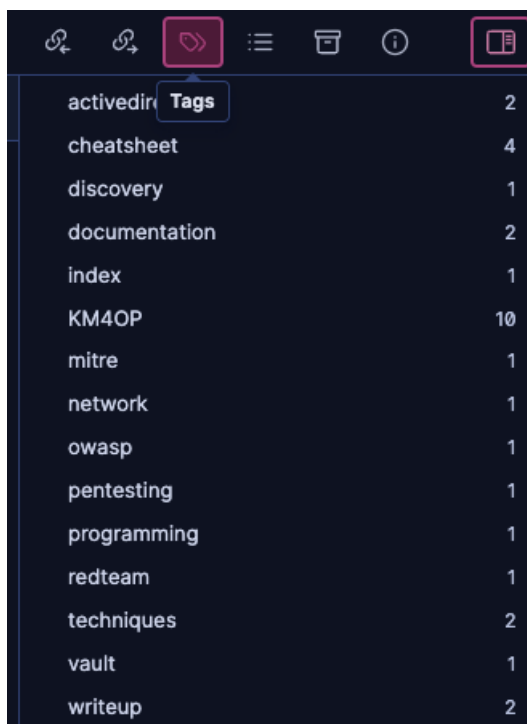
The following picture shows the command palette (`⌘ + P` or `Ctrl + P`) options for Local Images.



8.2.6 Tag Wrangler

We already discussed Tag Wrangler in [6. Metadata](#). Remember to routinely check your tags with Tag Wrangler to make sure that no typos are present.

Tag Wrangler has no command palette options. Remember that you can view your tags by going to the right dashboard and clicking on the *Tags* tab.



References

