finding-solutions

## How to search for solutions the right way

Find out what steps to take in order to find a solution to a problem

Here's some tips on how to help improve your search results. (by TBG ☑ )

Anyone looking for answers to questions regarding Garuda, (or any other Arch based disto) should always check the phenomenal Arch Wiki documentation first. As Garuda tracks very closely with upstream Arch, most information (but not all) contained in the ArchWiki is likely applicable to Garuda. You can use the Arch Wiki's internal search engine, but it's probably more convenient to simply use your favorite search engine. Running an internet search on a topic such as, "Archwiki Pacman usage" should immediately turn up all the information you could ever want to know about Arch Linux's default package manager "Pacman". Also, for those unfamiliar with Linux, many Linux aspects have inbuilt documentation that can be accessed directly from within the terminal with the "man" command. In Linux these are referred to as "manpages", which is a shortened form of "manual pages" (thus the "man" command). If you wanted to find information regarding Pacman without performing an internet search you could simply enter "man pacman" in the terminal. Alternately, if you wanted to find detailed information on removing packages with Pacman (uninstalling with the -R option), you could simply run "pacman -R -help". This will return detailed information on all the available pacman uninstall options without having to sift the Internet for answers. Arch Linux has the best documentation in the Linux world, so please avail yourself of these great resources before opening a help request on the Garuda forum.

Learning how to improve your search efficiency is one the most important keys to solving problems in Linux. This generally comes down to learning how to best refine your search terms to get the most focused results. If you are experiencing a problem that just cropped up on a recent update then one of the most useful ways to find relevant answers is to limit the time frame in your search. Most good search engines should have an option to limit search results to the last week, or the last month. A bug that appeared with your last update is more likely to be found in very recent online posts. If you're not sure how to change the time frame in your favorite search engine then you need to learn how. Advanced search engines such as DuckDuckGo, Google, and others all include these date filtering capabilities. Finding out how to do this is your first stepping stone to success in mastering the essentials of becoming an accomplished search guru. For recent bugs, always search the most recent online posts first. If that doesn't turn up anything, then you'll want to expand the search time frame limitatations. Even recent issues can turn up pertinent answers from far in the past, (as some bugs have a bad habit of recurring many times over). Limiting the search time frame is one important method to refine your search results. However, there are many other stratagems that can be utilized as well.

You can refine your search terms further by forcing your search engine to only include results for a single word (or several specific words) that are the most important in your overall search string. You can do this (if your search engine supports this feature) by surrounding the most important word(s) in in your overall search criteria in "quotation marks". Anything contained directly within "quotation marks" in your search string should ensure it is always going to appear in the search results. One of the most effective methods is to use "Arch Linux" as your first search string delimiter to minimize hits from Ubuntu/Mint based forum threads. Debian based distros may provide valid answers at times, however because of the major differences between the distros they are not the best place to start looking for answers. If you aren't finding the search results you want using "Arch Linux" (in quotation marks), then try searching using other Arch based distributions. Try narrowing your search results using "EndeavourOS" or "Manjaro Linux" instead. You may also want to try using "Garuda"

Linux" in your internet wide search engine terms, as sometimes a more specialized search engine will turn up results that the Garuda forum's internal search engine might miss.

If you can't readily find your targeted search term listed on a very lengthy webpage then use the "Find in this page" feature included in Firefox (or other browsers) to locate the specific info quickly. This helps to find a specific error message in an extremely long log output that has been posted online. This reduces search time immensely if you can't easily find an error message in a thread containing multiple lengthy logs. These, and other search shortcuts can help increase your search efficiency greatly. Once you have mastered these and other similar, (but not so obvious skills), you will be well on your way to becoming a certified Linux search guru.

Below are further ways to fine tune your search methods so that the hits returned are far more related to the specific answer you are seeking. This is an example of a problem that occurred whenever a computer was restarted, suspended, or shutdown. A loud popping sound through the computers speakers was happening whenever a power cycling event took place. Running a search that included the triggers "start, suspend, shutdown" returned mostly posts that were unrelated to the issue at hand. This will happen when you include too many general search terms, and you will get a million disjointed jumbled hits mostly unrelated to your problem returned. The key in this type of situation is to search each issue separately, rather than searching all the issues together to get a far more focused result.

- ► Example, run a search for "Arch Linux loud sound at shutdown", with "Arch Linux" in quotation marks. At first, run each search limiting the time frame to the last year. This is a very useful way to start off your internet search. As generally, fairly recent posts tend to be far more relevant today than a hit from a decade ago.
- ► Then try "Arch Linux loud popping sound at startup", with "Arch Linux" in quotation marks. Again limit the search results to the last year. If however, at any point your search results start to return very few relevant hits, then remove the time restrictions.
- ► Then search "Arch Linux loud noise when suspending". Again limit the time frame to the last year. Subtly change your search terms after each run to hopefully improve the accuracy of your results. If you've run all those searches using "Arch Linux" as a delimiter without success, then rerun your searches using distros that are Arch derivatives. If again you have no success, then lastly perform the searches again, this time using "Ubuntu" instead of restricting the search to Arch (or Arch derivatives). Hopefully by the time you've run all these search permutations you've found pertinent answers to some or all of the issues that were occurring.
- ▶ I'll give you some further tips to improve your search success rate. 95% of solving most Linux problems is about learning good search techniques to find the answer you need. The most important thing is to learn to search methodically. You can only be sure of one thing, there's no way that you're the only one on the entire planet experiencing your issue. You simply need to refine your search skills so that you can locate relevant posts pertaining to your issue at hand. Generally, if you search correctly you will almost always find information about the issue you are experiencing online. Usually, if you search hard enough solutions or workarounds have often already been found (but not always). In these cases filing a bug report with the upstream project may be required to get a resolution.
- ▶ In most cases it simply takes patience, perseverance, and good note keeping to solve the average Linux problem. Save any promising leads you find as webpage complete in HTML format in a directory specifically dedicated to your problem. Firefox has an excellent extension to save a complete webpage in one HTML file, the extension is called "SingleFile". Be sure to keep detailed notes with excerpts of the most promising leads to try. Once you have tested any solution (or command) record the results in your notes. Don't leave troubleshooting complex issues to your memory. Always record everything you've tried and the

result in detailed organized notes for reference later. If you need to reinstall in a year you will want everything recorded, so you don't need to repeat your search for the same answer all over again.

- ▶ When answering help requests on any Linux forum it never ceases to amaze me how many users will post a rather long and unusual error message, but when you ask them what the search results of the error turned up most have never even searched the error message. Error messages contained in dmesg or journalctl logs are your best friend for solving complex problems. Learn how to search your logs for error messages, and then research any error messages you've uncovered online for others with similar errors. This is one of the surest methods to track down what is causing any problem.
- ▶ It's all about research and record keeping skills when it comes to finding the solution to most any complex Linux problem. Learning these skills is the key to self reliance in Linux. I'll let you in on a another secret, most of the forum support volunteers don't have the answer to every support issue on the tips of their tongues. Experienced forum troubleshooters have simply honed their search skills from years of repetitive online searches. This often enables us find answers far easier and guicker than the average user. However, there is absolutely no reason why the average user can't become as equally effective at researching and solving their own issues.
- ▶ This distribution is all about trying to teach new users how to do for themselves. In reality spoon feeding new users a copy and paste command line solution accomplishes very little for the user (or the distro). This is because the very same user will inevitably be back very shortly with more questions they are expecting to be spoon fed once more. We attempt to break this dependency cycle on Garuda by trying to get users to expand there capabilities and become self reliant.
- ▶ Some Linux users don't subscribe to this philosophy and think it is rude or elitist to treat new users in this manner. Those involved on the Garuda project disagree. Our philosophy is to promote capable, confident, Linux users, who in the end don't need to go fishing on the forum for answers anymore. We hope the new users asking questions here when they first join the forum, will be the ones helping out other users here in a years time. This is our goal at Garuda, and hopefully you can understand why this is beneficial for everyone using the distro in the long run.
- Good luck finding your answer!

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