How do I reclaim disk space?

The following provides some options to consider when reclaiming disk space.

Note: You do not need to reclaim disk space for MongoDB to reuse freed space. See *Empty records* (page 774) for information on reuse of freed space.

repairDatabase

You can use `repairDatabase` on a database to rebuilds the database, de-fragmenting the associated storage in the process.

`repairDatabase` requires free disk space equal to the size of your current data set plus 2 gigabytes. If the volume that holds dbpath lacks sufficient space, you can mount a separate volume and use that for the repair. For additional information and considerations, see `repairDatabase`.

Warning: Do not use `repairDatabase` if you are critically low on disk space.
`repairDatabase` will block all other operations and may take a long time to complete.

You can only run `repairDatabase` on a standalone `mongod` instance. If the `mongod` instance is a member of a replica set, you will need to take the node out of a replica set and restart it as a standalone in order to run `repairDatabase`.

You can also run the `repairDatabase` operation for all databases on the server by restarting your `mongod` standalone instance with the `--repair` and `--repairpath` options. All databases will on the server will be unavailable during this operation.

Resync the Member of the Replica Set

For a secondary member of a replica set, you can perform a *resync of the member* (page 633) by: stopping the secondary member to resync, deleting all data and subdirectories from the member's data directory, and restarting.

For details, see *Resync a Member of a Replica Set* (page 633).

What is the working set?

Working set represents the total body of data that the application uses in the course of normal operation. Often this is a subset of the total data size, but the specific size of the working set depends on actual moment-to-moment use of the database.

If you run a query that requires MongoDB to scan every document in a collection, the working set will expand to include every document. Depending on physical memory size, this may cause documents in the working set to "page out," or to be removed from physical memory by the operating system. The next time MongoDB needs to access these documents, MongoDB may incur a hard page fault.

For best performance, the majority of your *active* set should fit in RAM.

What are page faults?

With the MMAPv1 storage engine, page faults can occur as MongoDB reads from or writes data to parts of its data files that are not currently located in physical memory. In contrast, operating system page faults happen when physical memory is exhausted and pages of physical memory are swapped to disk.