BorgBackup Deduplicating backups

Files your data → `create` → **Archive** deduplicated, encrypted → `prune` → **Deleted archive** space still used → `compact` → **Space freed** repo shrinks

CONCEPTS

Set BORG_REPO and BORG_PASSCOMMAND once; then use :: instead of the repo path (borg create ::<archive> <path>).

Every archive looks like a full backup, but identical chunks are stored once, so later runs are small and fast.

Lose the key or passphrase and the data is gone. Keep a key export and the passphrase outside the repo and the backed-up machine.

REPOSITORY

borg init -e *<mode>* *<repo>*
Create a repository

borg init -e repokey-blake2 *<repo>*
Encrypted, BLAKE2 auth (no SHA hardware)

export BORG_REPO=*<repo>*
Default repository

export BORG_PASSCOMMAND="*<cmd>***"**
Get the passphrase from a command

REPOSITORY (cont.)

export BORG_PASSPHRASE= *<passphrase>*
Passphrase from the environment

ssh:// *<user>***@***<host>***:***<port>***/** *<path>*
Remote repository URL

export BORG_RSH="ssh -i *<key>***"**
Custom ssh command

borg info *<repo>*
Repository size and encryption

borg key export *<repo>* *<file>*
Back up the key

borg key change-passphrase *<repo>*
Change the passphrase

CREATE

borg create *<repo>***::***<archive>* *<path>* **...**
Back up paths into a new archive

borg create --stats --progress *<repo>***::***<archive>* *<path>*
Show statistics and progress

CREATE (cont.)

borg create --list --dry-run *<repo>***::***<archive>* *<path>*
Preview what would be stored

borg create ... *<repo>***::{hostname}-{now:%Y-%m-%d}** *<path>*
Name archives by host and date

borg create -e '*<pattern>***' ...**
Exclude matching paths

borg create --exclude-from *<file>* **...**
Read excludes from a file

borg create -x ...
Stay on one filesystem

borg create -C zstd,6 ...
Choose compression

Pattern styles

Prefix	Meaning
`fm:`	shell-like, default for --exclude
`sh:`	like fm, ** crosses dirs, * does not
`re:`	regular expression, substring match
`pp:`	path prefix, dir and contents
`pf:`	exact full path

- *<pattern>*
Patterns file: exclude

CREATE (cont.)

+ *<pattern>*
Patterns file: include

BROWSE AND RESTORE

borg list *<repo>*
List archives

borg list *<repo>***::***<archive>*
List files of an archive

borg list --short *<repo>***::***<archive>*
Only paths

borg list --last *<n>* *<repo>*
Only the newest archives

borg extract *<repo>***::***<archive>*
Restore everything into current dir

borg extract *<repo>***::***<archive>* *<path>*
Restore only one path

borg extract --dry-run --list *<repo>***::***<archive>*
Check a restore without writing

borg mount *<repo>***::***<archive>* *<dir>*
Mount an archive via FUSE

borg umount *<dir>*
Unmount

RETENTION AND UPKEEP

borg prune -v --list --dry-run *<keep-options>* *<repo>*
Preview pruning

borg prune --keep-daily 7 --keep-weekly 4 --keep-monthly 6 *<repo>*
Apply a retention policy

borg prune --keep-within 10d *<repo>*
Keep everything from the last 10 days

borg prune -a '{hostname}-*' ... *<repo>*
Only touch one host's archives

borg compact *<repo>*
Free space after prune/delete

borg delete *<repo>***::***<archive>*
Delete one archive

borg check *<repo>*
Verify repo and archive consistency

COMMON OPTIONS

-v / --info
More output