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