# VERITAS Storage Foundation™ 4.1—Fundamentals Commands

## DISK OPERATIONS

| Action | Command Line |
|---|---|
| Initialize a disk | `vxdisksetup -i device` (CDS disk)<br>`vxdisksetup -i device format=sliced` (sliced disk) |
| List disks owned by local and remote hosts | `vxdisk -o alldgs list` |
| List disk header | `vxdisk list diskname\|device` |
| Evacuate a disk | `vxevac -g diskgroup from_disk to_disk` |
| Rename a disk | `vxedit -g diskgroup rename oldname newname` |
| Set spare, no hot relocation, or reserved space on a disk | `vxedit -g diskgroup set {spare\|nohotuse\|reserve}=on\|off diskname` |
| Unrelocate a disk | `vxunreloc -g diskgroup original_diskname` |

## DISK GROUP OPERATIONS

| Action | Command Line |
|---|---|
| Create a disk group | `vxdg init diskgroup diskname=device` |
| Add a disk to disk group | `vxdg -g diskgroup adddisk diskname=device` |
| Remove a disk from disk group | `vxdg -g diskgroup rmdisk diskname` |
| Deport, import or destroy a disk group | `vxdg {deport\|import\|destroy} diskgroup` |
| List disk groups | `vxdg list [diskgroup]` |
| Show free/spare space pool | `vxdg -g diskgroup {free\|spare}` |
| Upgrade disk group version | `vxdg [-T version] upgrade diskgroup` |
| Rewrite disk headers, configuration copies, and kernel log copies in a disk group. | `vxdg flush diskgroup targetdg object...`<br>or<br>`vxdctl enable` (for all disk groups) |
| Move an object between disk groups | `vxdg move sourcedg targetdg object...` |
| Split objects between disk groups | `vxdg split sourcedg targetdg object...` |

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|---|---|
| Join disk groups | `vxdg join sourcedg targetdg` |
| List objects affected by a disk group move operation | `vxdg listmove sourcedg targetdg object...` |
| Display `bootdg` | `vxdg bootdg` |
| Display `defaultdg` | `vxdg defaultdg` |
| Set defaultdg | `vxdctl defaultdg diskgroup` |
| Manually back up the disk group configuration | `vxconfigbackup diskgroup` |
| Perform precommit analysis of a restore | `vxconfigrestore -p diskgroup` |
| Restore the disk group configuration | `vxconfigrestore -c [-l directory] diskgroup` |

## VOLUME OPERATIONS

| Action | Command Line |
|---|---|
| Create a volume | `vxassist -g diskgroup make vol_name size layout=format diskname` |
| Remove a volume | `vxedit -g diskgroup -rf rm vol_name`<br>or<br>`vxassist -g diskgroup remove volume vol_name` |
| Display a volume | `vxprint -g diskgroup -vt vol_name`<br>`vxprint -g diskgroup -l vol_name` |
| Change volume read policy | `vxvol -g diskgroup rdpol round vol_name`<br>`vxvol -g diskgroup rdpol prefer vol_name preferrred_plex_name`<br>`vxvol -g diskgroup rdpol select vol_name` |
| Mirror an existing plex | `vxassist -g diskgroup mirror vol_name` |
| Add a log to a volume | `vxassist -g diskgroup addlog vol_name` |

## VOLUME CONFIGURATION OPERATIONS

| Action | Command Line |
|--------|--------------|
| Resize a volume | `vxassist -g diskgroup growto vol_name new_length` |
| | `vxassist -g diskgroup growby vol_name length_change` |
| | `vxassist -g diskgroup shrinkto vol_name new_length` |
| | `vxassist -g diskgroup shrinkby vol_name length_change` |
| | `vxresize -g diskgroup vol_name [+|-]length` |
| Resize a dynamic LUN | `vxdisk -g diskgroup resize disk_name length=attribute` |

## VERITAS FILE SYSTEM ADMINISTRATION

| Action | Command Line |
|--------|--------------|
| Make a VxFS file system | `mkfs -F vxfs [generic_options] [-o vxfs_options] char_device [size]` |
| Mount a file system | `mount -F vxfs [generic_options] [-o vxfs_options] block_device mount_point` |
| Unmount a file system | `umount mount_point` |
| Determine file system type | `fstyp [-v] block_device` |
| Report free blocks/inodes | `df -F vxfs [-o s] mount_point` |
| Check/repair a file system | `fsck -F vxfs [generic_options] [y|Y] [n|N] character_device` |
| Resize a file system | `fasdm [-b newsize] [-r raw_device] mount_point` |
| Upgrade the VxFS layout | `vxupgrade [-n new_version] [-r raw_device] mount_point` |
| Display layout version | `vxupgrade mount_point` |
| Report on directory fragmentation | `fsadm -D mount_point` |
| Report on extent fragmentation | `fsadm -E [-l largesize] mount_point` |
| Defragment directories | `fsadm -d mount_point` |
| Defragment extents | `fsadm -e mount_point` |
| Reorganize a file system to support files > 2GB | `fsadm -o largefiles mount_point` |
| Activate file change log | `fcladm on mount_point` |
| Resize the intent log | `fsadm -F vxfs -o log=size[,logdev=device] mount_point` |
| Change default logging behavior | `fsck -F vxfs [generic_options] -o delaylog|tmplog|nodatainlog|blkclear block_device mount_point` |

**POINT-IN-TIME COPIES: STANDARD**

| Action | Command Line |
|---|---|
| Create a traditional volume snapshot | `vxassist -g diskgroup [-b] snapstart orig`<br><br>`vxassist -g diskgroup snapshot origvol snapvol` |
| Display information about traditional volume snapshots | `vxassist -g diskgroup snapprint origvol` |
| Reassociate a traditional snapshot | `vxassist -g diskgroup [-o resyncfromreplica] snapback snapvol` |
| Dissociate a traditional volume snapshot | `vxassist -g diskgroup snapclear snapvol` |
| Create a file system snapshot | `mount -F vxfs -o snapof=origfs[,snapsize=size] destination snap_mount_point` |
| Back up a file system snapshot | `vxdump [options] [snap_mount_point]` |
| Remove a file system snapshot | `umount snap_mount_point` |