

# ZFS: Grow/Shrink an existing zfs filesystem

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## ZFS: Grow/Shrink an existing zfs filesystem

```
# Tested on RHEL 6 & 7
```

```
# Choose the F.S. to resize and verify current size
```

```
zfs list
```

| NAME         | USED | AVAIL | REFER | MOUNTPOINT    |
|--------------|------|-------|-------|---------------|
| c_pool       | 204K | 19.6G | 30K   | /c_pool       |
| c_pool/zfs01 | 30K  | 1024M | 30K   | /zfs01        |
| c_pool/zfs02 | 30K  | 19.6G | 30K   | /filesystem02 |
| m_pool       | 100K | 9.78G | 30K   | /m_pool       |

```
ZPOOL=c_pool
```

```
ZFS=zfs01
```

```
df -h /$ZFS
```

| Filesystem   | Size | Used | Avail | Use% | Mounted on |
|--------------|------|------|-------|------|------------|
| c_pool/zfs01 | 1.0G | 128K | 1.0G  | 1%   | /zfs01     |

```
# Extend F.S. to 2GB
```

```
zfs set quota=2g $ZPOOL/$ZFS
```

```
# Check
```

```
zfs list
```

| NAME         | USED | AVAIL | REFER | MOUNTPOINT    |
|--------------|------|-------|-------|---------------|
| c_pool       | 204K | 19.6G | 30K   | /c_pool       |
| c_pool/zfs01 | 30K  | 2.00G | 30K   | /zfs01        |
| c_pool/zfs02 | 30K  | 19.6G | 30K   | /filesystem02 |
| m_pool       | 100K | 9.78G | 30K   | /m_pool       |

```
df -h /$ZFS
```

| Filesystem   | Size | Used | Avail | Use% | Mounted on |
|--------------|------|------|-------|------|------------|
| c_pool/zfs01 | 2.0G | 128K | 2.0G  | 1%   | /zfs01     |

```
# Reduce F.S. back to 1GB
```

```
zfs set quota=1g $ZPOOL/$ZFS
```

```
# Check
```

```
zfs list
```

| NAME         | USED | AVAIL | REFER | MOUNTPOINT    |
|--------------|------|-------|-------|---------------|
| c_pool       | 204K | 19.6G | 30K   | /c_pool       |
| c_pool/zfs01 | 30K  | 1024M | 30K   | /zfs01        |
| c_pool/zfs02 | 30K  | 19.6G | 30K   | /filesystem02 |
| m_pool       | 100K | 9.78G | 30K   | /m_pool       |

```
df -h /$ZFS
```

| Filesystem   | Size | Used | Avail | Use% | Mounted on |
|--------------|------|------|-------|------|------------|
| c_pool/zfs01 | 1.0G | 128K | 1.0G  | 1%   | /zfs01     |

```
# Here is what happens if we fill up a little bit our filesystem and  
then try to reduce it
```

```
# below the boundary of used space
```

```
df -h /$ZFS
```

| Filesystem   | Size | Used | Avail | Use% | Mounted on |
|--------------|------|------|-------|------|------------|
| c_pool/zfs01 | 1.0G | 350M | 675M  | 35%  | /zfs01     |

```
zfs set quota=256m $ZPOOL/$ZFS
```

```
cannot set property for 'c_pool/zfs01': size is less than current  
used or reserved space
```

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