RHEL: Reserved space on a ext2/ext3/ext4 filesystem

Article Number: 67 | Rating: Unrated | Last Updated: Sun, May 27, 2018 8:47 PM

```
# Tested on RHEL 6 & 7

# By default, when creating a new ext2/ext3/ext4 filesystem, five
percent of the partition
# is reserved for the superuser, allowing root to carry out
administrative tasks on the
# filesystem in the eventuality that F.S. becomes full.

# In the case of large partitions 5% may represent a lot of space so
the percentage of
# reserved space may be reduced to the minimum, which is 1%

# We will use 'tune2fs' command with '-m' option, that allows us to
modify it on line

# In this case I'm not saving much space as I'm using a small
filesystem of only 1GB !

mkfs.ext3 /dev/rootvg/lv_apps   # Valid for 'mkfs.ext2'
and 'mkfs.ext4' commands too
   [...]
   13107 blocks (5.00%) reserved for the super user

   [...]

tune2fs -l /dev/rootvg/lv_apps | grep -i "block count"
   Block count:              262144
   Reserved block count:     13107
```

```
mount /dev/rootvg/lv_apps /apps


df -k /apps
   Filesystem                1K-blocks  Used Available Use% Mounted
on
   /dev/mapper/rootvg-lv_apps    999320  1320    945572   1% /apps


# Let's reduce reserved space to 1%:

tune2fs -m 1 /dev/rootvg/lv_apps
   tune2fs 1.42.9 (28-Dec-2013)
   Setting reserved blocks percentage to 1% (2621 blocks)

tune2fs -l /dev/rootvg/lv_apps | grep -i "block count"
   Block count:              262144
   Reserved block count:     2621

# Note that available space value is higher than before:

df -k /apps
   Filesystem                1K-blocks  Used Available Use% Mounted
on
   /dev/mapper/rootvg-lv_apps    999320  1320    987516   1% /apps
```

Posted - Sun, May 27, 2018 8:47 PM. This article has been viewed 4738 times.

Online URL: http://kb.ictbanking.net/article.php?id=67