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| In addition to the good discussion in the accepted answer, it is worth adding some more points about umask, with reference to how it is managed in 12.04 and onwards.  **Umask and pam\_umask**  The default umask is now in /etc/login.defs and not in /etc/profile, as the official note in /etc/profile reads:  # The default umask is now handled by pam\_umask.  # See pam\_umask(8) and /etc/login.defs.  Pam\_umask is briefly explained below, and it should be said that the default file for the user to place his custom umask setting in is still ~/.profile.  Pam\_umask is one of many important [PAM modules](http://manpages.ubuntu.com/manpages/precise/en/man7/PAM.7.html) that are crucial in Ubuntu's operation (run apropos '^pam\_' to find the manpages for the other ones). In the [manpage](http://manpages.ubuntu.com/manpages/precise/en/man8/pam_umask.8.html) for pam\_umask it is noted that  pam\_umask is a PAM module to set the file mode creation mask of the current environment. The umask affects the default permissions assigned to newly created files.  **A note on the default umask**  New folders in $HOME can be created by mkdir with default 775 permissions and files created with touch with default 664 permissions even when the default umask is 022. This seems, at first, contradictory, and is worth explaining.  While the default umask is 022 on Ubuntu, this is not the whole story, as there is a setting in /etc/login.defs that allows the umask to be 002 for non-root users if a condition is met (see excerpt below). On a normal installation, /etc/login.defs contains the setting USERGROUPS\_ENAB yes. This is what  Enables setting of the umask group bits to be the same as owner bits (examples: 022 -> 002, 077 -> 007) for non-root users, if the uid is the same as gid, and username is the same as the primary group name.  Hence why you see the following with stat when a new folder is created with mkdir on a single user system such as mine (uid and gid are the same):  Access: (0775/drwxrwxr-x) Uid: ( 1000/ mike) Gid: ( 1000/ mike) |

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| setfacl -R -d -m o::--- /NAS\_INGEST01/cms/repository/asset/201801  [root@TESTBED-VOD-CMS 164057]# ll  total 0  -rw-rw-rw- 1 root root 0 Jan 18 18:13 test2.png  -rw-rw---- 1 root root 0 Jan 18 18:15 test3.png  -rw-rw-r-- 1 root root 0 Jan 17 13:30 test.png   * Take effect when next create file |