

setgid

The setgid (set group id) can do two things allow the user to execute a program with the permissions of the group owner.

Well what does this mean?

Control Group Ownership of New Files Under a Folder With setgid

Sometimes you want any newly created files to belong to a specific group.

Let's start with a simple folder that you adjust and intend to share only with members of the staff group but nobody else. You setup permissions properly on the folder.

Basics with a Folder

...

But when you create the files, you realize that your fellow staff members can enter your folder, but not see your files.

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To fix this, just add the setgid to the folder,

```
chmod g+s shared-folder
```

Now create your new file and you can see the difference in the group owner,

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However, immediately there are some caveats. First your existing file is not fixed.

Second, moving files from your own home folder over does not automatically fix the permissions,

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Third, if you create subfolders this happens,

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setgid Recursively for Only Folders

In this case, we want to take an existing folder with many files for a zero footprint application and ensure that any new files created will belong to the right group.

We use the chmod command combined with find - to return back only directories - and [xargs](#),

```
find /path/to/hierarchy -type d | xargs -I{} chmod g+s {}
```