

Linux Spoken Tutorial

File Attributes

Talk to a Teacher
National Mission on Education through ICT
<http://spoken-tutorial.org>

Script
Shahid Ali Farooqui
Narration
Anusha and Shahid

23 February 2011



What is File Attribute ?

- **A file attribute is metadata that describes or is associated with a computer file**



What is File Attribute ?

- A file attribute is metadata that describes or is associated with a computer file
- File attribute is the characteristics that describe a file, such as owner, file type, access permissions, etc.



Changing Ownership

- **chown command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.**



Changing Ownership

- **chown command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.**
- **The syntax of chown command is**



Changing Ownership

- **chown** command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.
- The syntax of **chown** command is
- **chown** [options] **ownername filename/directoryname**



Changing Ownership

- **chown command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.**
- **The syntax of chown command is**
- **chown [options] ownername filename/directoryname**
- **-R : To change the permission on files that are in the subdirectories of the directory**



Changing Ownership

- **chown command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.**
- **The syntax of chown command is**
- **chown [options] ownername filename/directoryname**
- **-R : To change the permission on files that are in the subdirectories of the directory**
- **-c : Change the permission for each file.**



Changing Ownership

- **chown command is used to change the ownership of the file or directory. Only administrator or root user can change the owner of a file or directory.**
- **The syntax of chown command is**
- **chown [options] ownername filename/directoryname**
- **-R : To change the permission on files that are in the subdirectories of the directory**
- **-c : Change the permission for each file.**
- **-f : Prevents chown from displaying error messages**



chmod command

- **chmod** command is used to change the access mode (permissions) of one or more files.



chmod command

- **chmod command is used to change the access mode (permissions) of one or more files.**
- **Syntax of the chmod command is**



chmod command

- **chmod** command is used to change the access mode (permissions) of one or more files.
- **Syntax of the chmod command is**
- **chmod [options] mode filename**



chmod command

- **chmod command is used to change the access mode (permissions) of one or more files.**
- **Syntax of the chmod command is**
- **chmod [options] mode filename**
- **we may give the following options with chmod command.**



chmod command

- **chmod command is used to change the access mode (permissions) of one or more files.**
- **Syntax of the chmod command is**
- **chmod [options] mode filename**
- **we may give the following options with chmod command.**
- **-c, -changes : Print information about files that are changed.**



chmod command

- **chmod command is used to change the access mode (permissions) of one or more files.**
- **Syntax of the chmod command is**
 - **chmod [options] mode filename**
- **we may give the following options with chmod command.**
- **-c, --changes : Print information about files that are changed.**
- **-f, --silent, --quiet : Do not notify user of files that chmod cannot change.**



File Permissions

- **r : Read**



File Permissions

- **r** : Read
- **w** : Write



File Permissions

- **r** : Read
- **w** : Write
- **x** : **Execute**



File Permissions

- **r** : Read
- **w** : Write
- **x** : Execute
- **s** : Set user (or group) ID



File Permissions

- r : Read
- w : Write
- x : Execute
- s : Set user (or group) ID
- **Alternatively, we may specify permissions by a three-digit octal number.**



File Permissions

- **r** : Read
- **w** : Write
- **x** : Execute
- **s** : Set user (or group) ID
- Alternatively, we may specify permissions by a three-digit octal number.
- **4** : Read



File Permissions

- **r** : Read
- **w** : Write
- **x** : Execute
- **s** : Set user (or group) ID
- Alternatively, we may specify permissions by a three-digit octal number.
- **4** : Read
- **2** : Write



File Permissions

- **r** : Read
- **w** : Write
- **x** : Execute
- **s** : Set user (or group) ID
- Alternatively, we may specify permissions by a three-digit octal number.
- **4** : Read
- **2** : Write
- **1** : Execute



Changing Group

- **chgrp command is used to change the group of one or more files to new group.**



Changing Group

- **chgrp command is used to change the group of one or more files to new group.**
- **The syntax for the chgrp command is**



Changing Group

- **chgrp command is used to change the group of one or more files to new group.**
- **The syntax for the chgrp command is**
- **chgrp [options] newgroup files**



Inode in Linux

- The inode number is a unique integer assigned to the device.



Inode in Linux

- The inode number is a unique integer assigned to the device.
- We can use `ls -li` command to see the inode number of a file.



Inode in Linux

- The inode number is a unique integer assigned to the device.
- We can use `ls -li` command to see the inode number of a file.
- Number written before the file is the inode number of the file.



Hard Links

- Inodes are associated with precisely one directory entry at a time.



Hard Links

- Inodes are associated with precisely one directory entry at a time.
- **Hard links are to associate multiple directory entries with a single inode**



Hard Links

- Inodes are associated with precisely one directory entry at a time.
- Hard links are to associate multiple directory entries with a single inode
- **ln** is the command to make link



Hard Links

- Inodes are associated with precisely one directory entry at a time.
- Hard links are to associate multiple directory entries with a single inode
- `ln` is the command to make link
- The syntax of `ln` command to create the hard link is



Hard Links

- Inodes are associated with precisely one directory entry at a time.
- Hard links are to associate multiple directory entries with a single inode
- `ln` is the command to make link
- The syntax of `ln` command to create the hard link is
- **`ln source link`**



Hard Links

- Inodes are associated with precisely one directory entry at a time.
- Hard links are to associate multiple directory entries with a single inode
- `ln` is the command to make link
- The syntax of `ln` command to create the hard link is
- `ln source link`
- Where, `source` is an existing file and `link` is the file to create.



Talk to a Teacher

Soft Links

- **Soft link (symbolic link) is a special type of file that contains a reference to another file or directory in the form of an absolute or relative path.**



Soft Links

- Soft link (symbolic link) is a special type of file that contains a reference to another file or directory in the form of an absolute or relative path.
- The syntax of ln command to create soft links is



Soft Links

- Soft link (symbolic link) is a special type of file that contains a reference to another file or directory in the form of an absolute or relative path.
- The syntax of ln command to create soft links is
- **ln -s target-filename symbolic-filename**



Funding Support

- Spoken Tutorial is a part of the Talk to a Teacher project



Funding Support

- Spoken Tutorial is a part of the Talk to a Teacher project
- Supported by the National Mission on Education through ICT (NMEICT), MHRD, Government of India



Funding Support

- Spoken Tutorial is a part of the Talk to a Teacher project
- Supported by the National Mission on Education through ICT (NMEICT), MHRD, Government of India
- More information on this mission is available at <http://spoken-tutorial.org/NMEICT-Intro>

