

Directory last modified date

Asked 13 years, 2 months ago Modified 2 years, 1 month ago Viewed 50k times



88

Am wondering when the directory last modified date is changed. I modified a file inside a particular directory (via FTP), but the directory's LMD did not change. How is it suppose to function?



linux unix ftp



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edited Jul 7, 2015 at 22:13

030

030

10.9k ● 12 ● 79 ● 124

asked Sep 1, 2010 at 17:38



Alec Smart

94.4k ● 39 ● 121 ● 184

2 Answers

Sorted by: Highest score (default) ◆



142

The mtime (modification time) on the directory itself changes when a file or a subdirectory is added, removed or renamed.



Modifying the contents of a file within the directory does not change the directory itself, nor does updating the modified times of a file or a subdirectory. Additionally, adding, removing or renaming files/directories in subdirectories does **not** propagate up to the directory. If you change the permissions on the directory, the ctime changes but the mtime does not.



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edited Sep 23, 2021 at 8:16



FHTMitchell

11.9k ● 2 ● 35 ● 47

answered Sep 1, 2010 at 17:40



Jonathan Leffler

734k ● 141 ● 912 ● 1287

3 Is it modified when a subdirectory is modified? – Flimm Sep 30, 2013 at 9:42

8 @Flimm: it depends on the nature of the modification to the sub-directory. If a file is added to or removed from the sub-directory, then no. If the sub-directory is renamed, then yes (because the new name is stored in the directory holding the sub-directory, so what 'really' changes is the entry in the main directory, and nothing changes in the sub-directory). – Jonathan Leffler Sep 30, 2013 at 13:02

9 @Asmageddon: if something is modified several levels deep, there is no way to know that from the modification time of the directory several levels up. Think what that would entail -- ultimately, the root directory would have to be modified any time any file was modified anywhere, making its in-memory inode a hot-spot for every process that ever does anything with any file. – Jonathan Leffler Oct 28, 2014 at 16:23

6 @cram2208: Does Gedit create a backup file within the directory, or a lock file, or something like that? What happens if you use `touch somefile` instead of `gedit`? – Jonathan Leffler Feb 13, 2017 at 23:23

- 3 @JonathanLeffler Good insights I should say, I now understand completely what was going on. It was a backup file in the directory and not the modification of the file in itself. When using touch on the file it actually changed the LMD of the file but not of the directory. Gotta be more careful on those kind of details ... – [cram2208](#) Feb 13, 2017 at 23:31 

**31**

A directory is like a file that contains a list of the filenames in it (indeed, you may have accidentally opened a directory in an editor, where you can see it is a mostly-readable list of its contents) -- so it is modified when a file in that directory is added, removed, or renamed.



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answered Sep 1, 2010 at 17:48



[Ether](#)

53.2k ● 13 ● 86 ● 159



- 1 Is it modified when a subdirectory is modified? – [Flimm](#) Sep 30, 2013 at 9:41

- 1 @Flimm It seems to only update the containing directory's mtime otherwise it would bubble up to the root. – [Nick Weaver](#) Jul 2, 2014 at 11:54 

- 1 Out of interest, which editors allow you to open a directory directly? Most (even `ed` and `cat`) seem to complain, or offer a list of file to open instead. – [naught101](#) Jun 7, 2017 at 1:15 

@naught101 vim will quite happily open a directory. – [Ether](#) Jun 8, 2017 at 20:12

- 6 @Ether: It doesn't "open a directory" as in actually reading the directory's inode's data (or what ever equivalent on other file systems). It just provides a file browser for that directory. – [naught101](#) Jun 9, 2017 at 1:17