How to Compare Files in Linux Using Meld (Diff/Merge) Tool

Ravi Saive | Last Updated: September 16, 2021 | Linux Graphical Tools | 2 Comments

If you are familiar with diff; a Linux terminal-based tool for comparing two files in terms of contextual differences and layout, you are going to love what **Meld** has to offer. Think of **Meld** as a diff tool with graphical upgrades.

Whether you are dealing with Git repository files, directory files, or ordinary system files, the visual capability of **Meld** makes any file comparing task not only fun but also a walk in the park.

Therefore, sorting through data and code files no longer needs to be a struggle for developers and novice Linux users. Additionally, **Meld** offers a merge functionality on top of it being a graphical diff tool.

Install Meld in Linux

Before we can learn the ropes of implementing **Meld** as an effective file comparison tool, we first need to have it installed and running on our Linux system.

Depending on your Linux system distribution preference, install **Meld** in reference to the following installation command options. Ensure you are a Sudoer user or you have Sudo privileges on the Linux system you are using.

```
$ sudo apt-get install meld        [On Debian, Ubuntu and Mint]
$ sudo yum install meld            [On RHEL/CentOS/Fedora and Roc
$ sudo emerge -a sys-apps/meld     [On Gentoo Linux]
$ sudo pacman -S meld              [On Arch Linux]
$ sudo zypper install meld         [On OpenSUSE]
```

Comparing Two Files in Linux Using Meld

Create two files with slightly different content structures. We will be using these files to demonstrate the power of **Meld** as a file comparing tool.

Create the first file.

```
$ nano file1
```

We will populate this file with some random content.

```
1 2 3 4 5 6 7 8 9 10
one two three four five six seven eight nine ten
This file contains some number sequences in numeric and textua
Regards,
LinuxShellTips Tutor
```

Create a second file.

```
$ nano file2
```

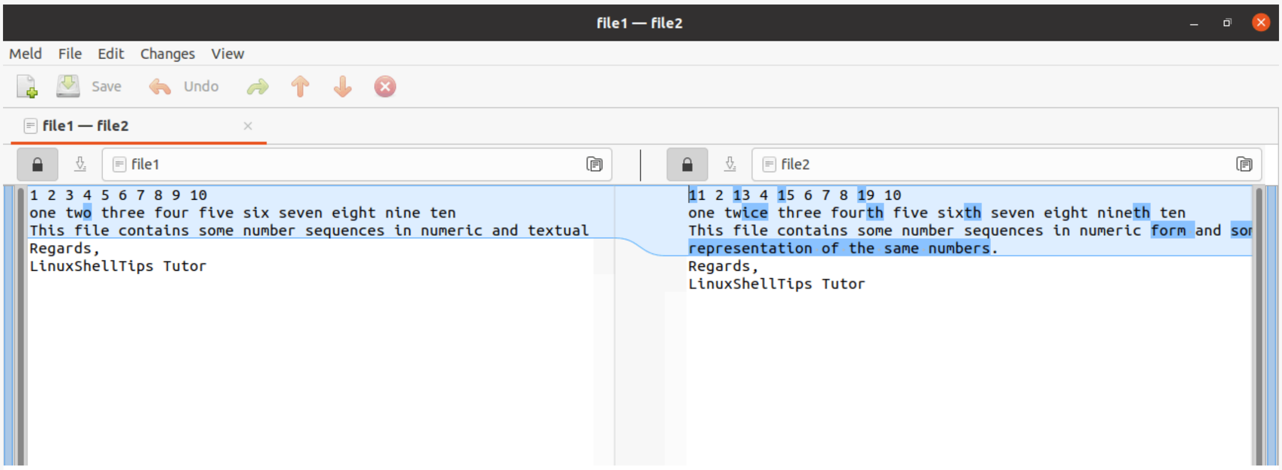
and again populate it with the following content.

```
11 2 13 4 15 6 7 8 19 10
one twice three four five six seven eight nine ten
This file contains some number sequences in numeric form and s
Regards,
LinuxShellTips Tutor
```

Comparing Two Files in Linux

We can now implement and execute a file comparison attempt regarding these two files.

```
$ meld file1 file2
```



```
1 2 3 4 5 6 7 8 9 10
one two three four five six seven eight nine ten
This file contains some number sequences in numeric and textual
Regards,
LinuxShellTips Tutor
```

```
11 2 13 4 15 6 7 8 19 10
one twice three fourth five sixth seven eight nineth ten
This file contains some number sequences in numeric form and sor
representation of the same numbers.
Regards,
LinuxShellTips Tutor
```

Comparing Two Files Using Meld

Firstly, Meld highlights the portion of both files that are different from the light blue foreground color. It then uses a dark blue foreground color to point out key contextual elements that make these two files dissimilar.

Comparing Three Files in Linux

Unlike the diff file comparing tool, Meld's file comparing capability can flexibly extend to three files. Let us create a third file and make it slightly different than the first two files we compared.

```
$ nano file3
```

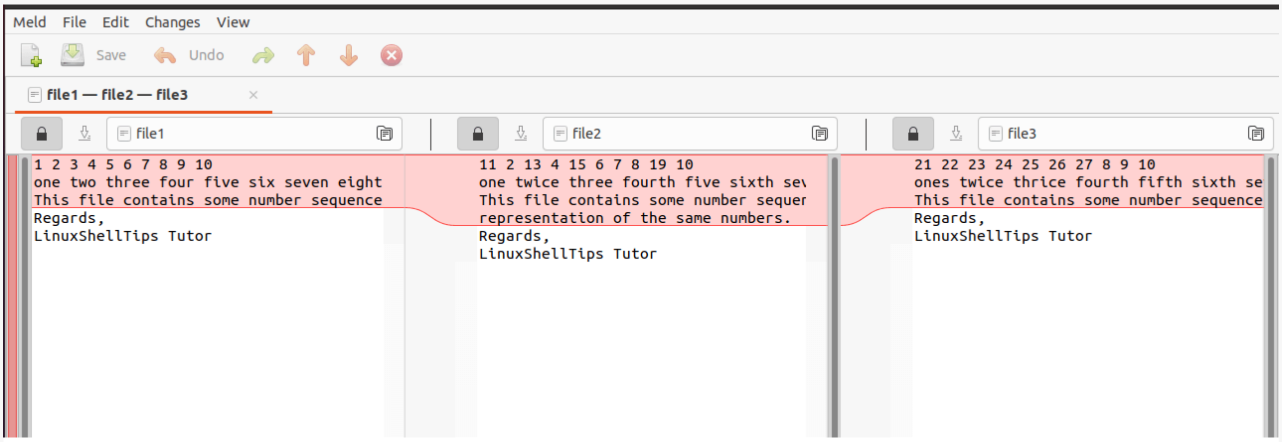
Add the following content to it.

```
21 22 23 24 25 26 27 8 9 10
ones twice thrice fourth fifth sixth seventh eight nine ten
This file contains some number sequences in numeric and textua
```

```
Regards,
LinuxShellTips Tutor
```

Let us now try to compare **file1**, **file2**, and **file3** at the same time.

```
$ meld file1 file2 file3
```



```
1 2 3 4 5 6 7 8 9 10
one two three four five six seven eight
This file contains some number sequence
Regards,
LinuxShellTips Tutor
```

```
11 2 13 4 15 6 7 8 19 10
one twice three fourth five sixth sev
This file contains some number sequer
representation of the same numbers.
Regards,
LinuxShellTips Tutor
```

```
21 22 23 24 25 26 27 8 9 10
ones twice thrice fourth fifth sixth se
This file contains some number sequence
Regards,
LinuxShellTips Tutor
```

Compare There Files in Linux

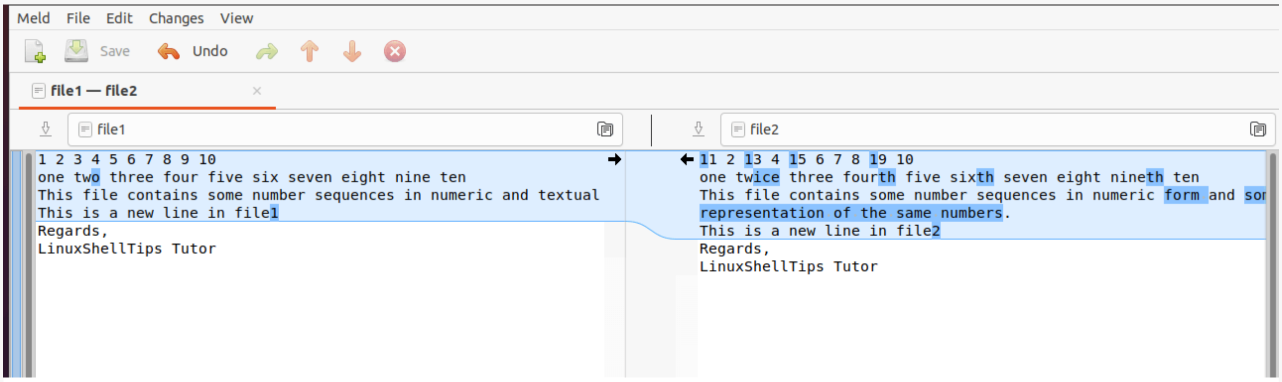
As expected, **Meld** has highlighted the portion of the three files that are different and left out the contextual portion that is identical in all files.

Editing Compared Files in Linux

Whether you use **Meld** to compare file changes on two or three files, sometimes you may want to do more than just note the differences between these files. Meld opens your files in an editable editor environment.

To edit your files, you need to execute **Meld**.

```
$ meld file1 file2
```



```
1 2 3 4 5 6 7 8 9 10
one two three four five six seven eight nine ten
This file contains some number sequences in numeric and textual
This is a new line in file1
Regards,
LinuxShellTips Tutor
```

```
11 2 13 4 15 6 7 8 19 10
one twice three fourth five sixth seven eight nineth ten
This file contains some number sequences in numeric form and sor
representation of the same numbers.
This is a new line in file2
Regards,
LinuxShellTips Tutor
```

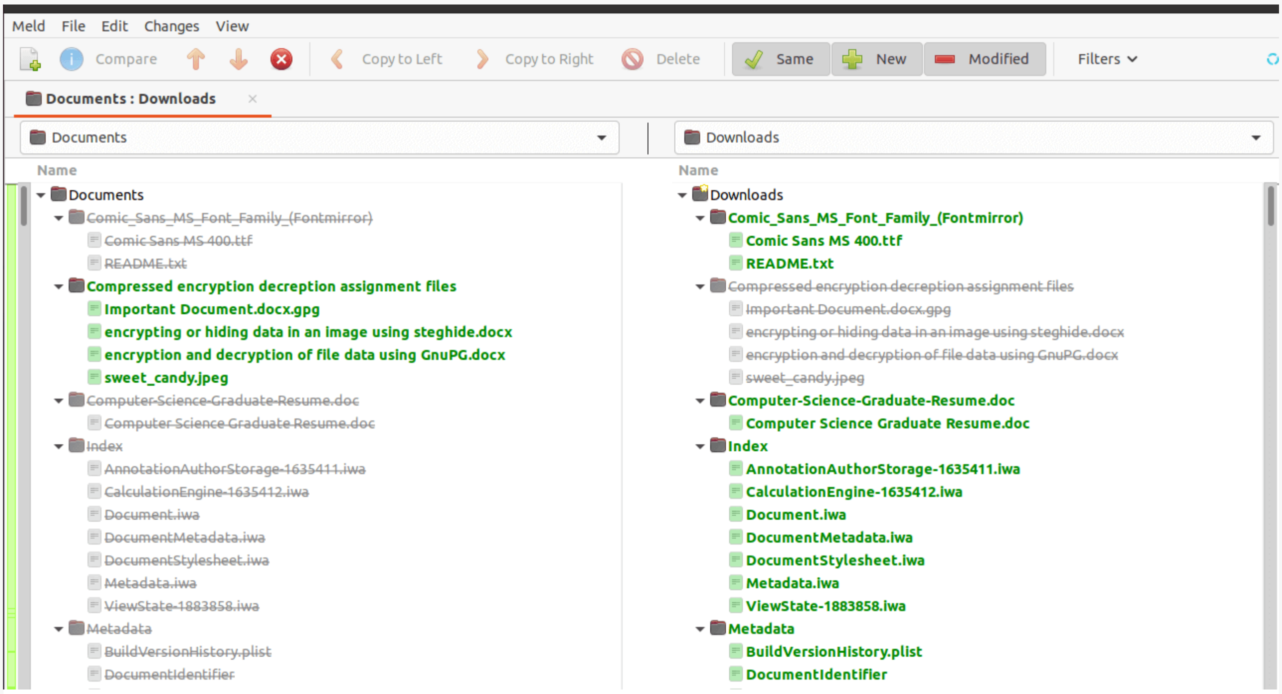
Edit Compare Files in Linux

In the above case, we have successfully edited both files and saved the changes through Meld.

Comparing Two Directories in Linux

We can also stretch our luck with **Meld** and compare two directories if needed. Use root privileges to run this command for effectiveness.

```
$ meld Documents Downloads
```



Documents
- ~~Comic_Sans_MS_Font_Family_(Fontmirror)~~
  - ~~Comic Sans MS 400.ttf~~
  - ~~README.txt~~
- Compressed encryption decreption assignment files
  - Important Document.docx.gpg
  - encrypting or hiding data in an image using steghide.docx
  - encryption and decryption of file data using GnuPG.docx
  - sweet_candy.jpeg
- ~~Computer-Science-Graduate-Resume.doc~~
  - ~~Computer Science Graduate Resume.doc~~
- ~~Index~~
  - ~~AnnotationAuthorStorage-1635411.iwa~~
  - ~~CalculationEngine-1635412.iwa~~
  - ~~Document.iwa~~
  - ~~DocumentMetadata.iwa~~
  - ~~DocumentStylesheet.iwa~~
  - ~~Metadata.iwa~~
  - ~~ViewState-1883858.iwa~~
- ~~Metadata~~
  - ~~BuildVersionHistory.plist~~
  - ~~DocumentIdentifier~~

Downloads
- Comic_Sans_MS_Font_Family_(Fontmirror)
  - Comic Sans MS 400.ttf
  - README.txt
- ~~Compressed encryption decreption assignment files~~
  - ~~Important Document.docx.gpg~~
  - ~~encrypting or hiding data in an image using steghide.docx~~
  - ~~encryption and decryption of file data using GnuPG.docx~~
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  - DocumentMetadata.iwa
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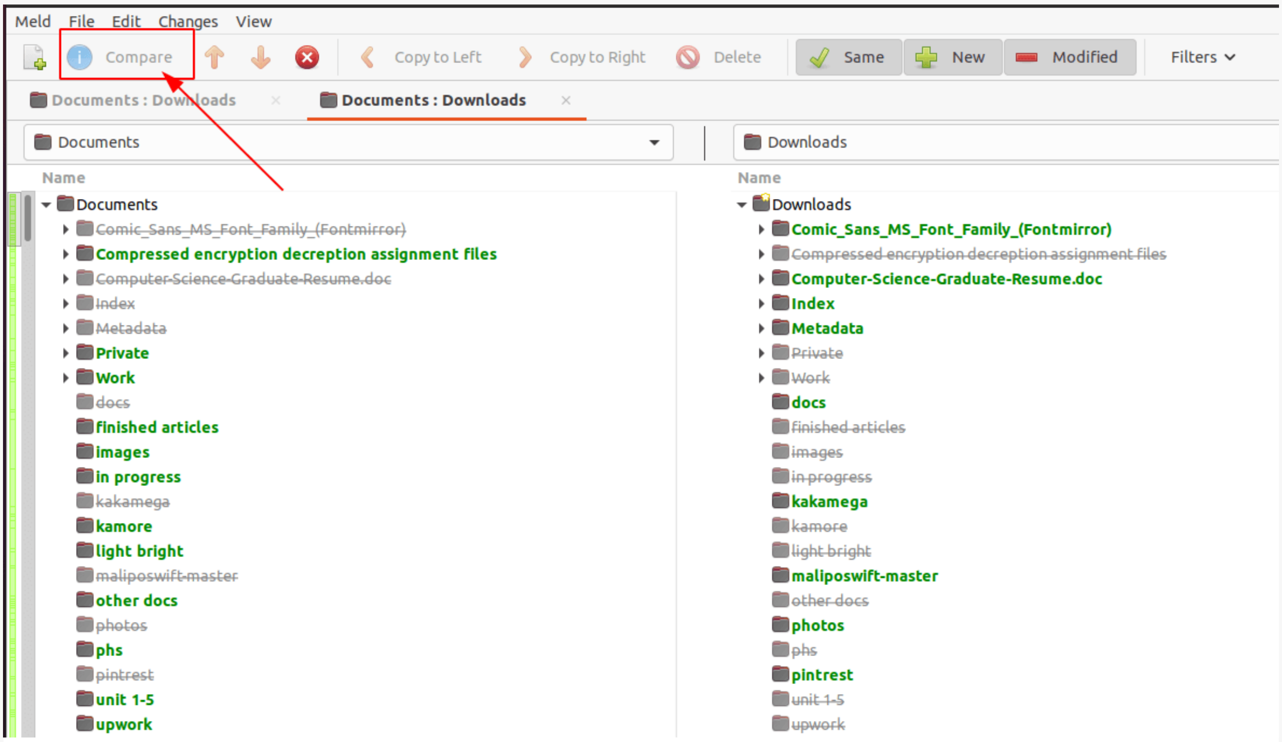
  - Metadata.iwa
  - ViewState-1883858.iwa
- Metadata
  - BuildVersionHistory.plist
  - DocumentIdentifier

Compare Two Directories in Linux

When using Meld to handle directory files, Four important Meld features stand out:

Meld Compare

This feature highlights the main differences between the two files.



Documents
- ~~Comic_Sans_MS_Font_Family_(Fontmirror)~~
- Compressed encryption decreption assignment files
- ~~Computer-Science-Graduate-Resume.doc~~
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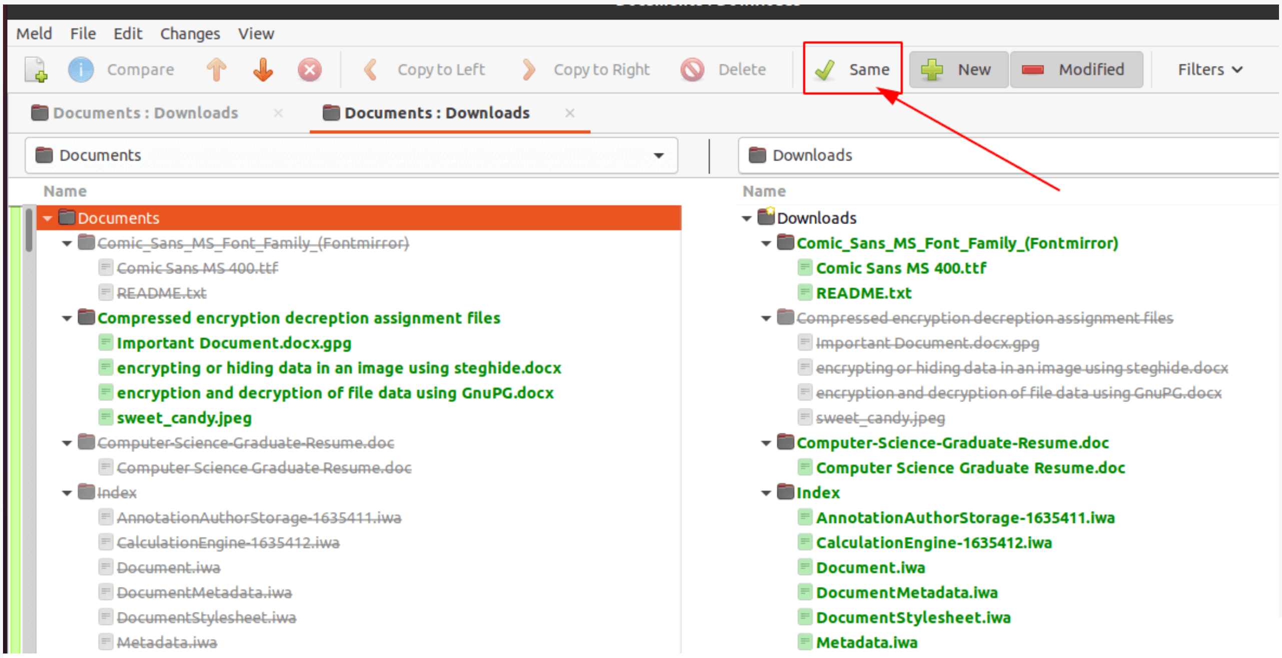
- ~~Metadata~~
- Private
- Work
- ~~docs~~
- finished articles
- images
- in progress
- ~~kakamega~~
- kamore
- light bright
- ~~maliposwift-master~~
- other docs
- ~~photos~~
- phs
- ~~pintrest~~
- unit 1-5
- upwork

Downloads
- Comic_Sans_MS_Font_Family_(Fontmirror)
- ~~Compressed encryption decreption assignment files~~
- Computer-Science-Graduate-Resume.doc
- Index
- Metadata
- ~~Private~~
- ~~Work~~
- docs
- ~~finished articles~~
- ~~images~~
- ~~in progress~~
- kakamega
- ~~kamore~~
- ~~light bright~~
- maliposwift-master
- ~~other docs~~
- photos
- ~~phs~~
- pintrest
- ~~unit 1-5~~
- ~~upwork~~

Compare Files in Linux

Meld Same

This feature will try to fetch similar files between the two directories.



Documents
- ~~Comic_Sans_MS_Font_Family_(Fontmirror)~~
  - ~~Comic Sans MS 400.ttf~~
  - ~~README.txt~~
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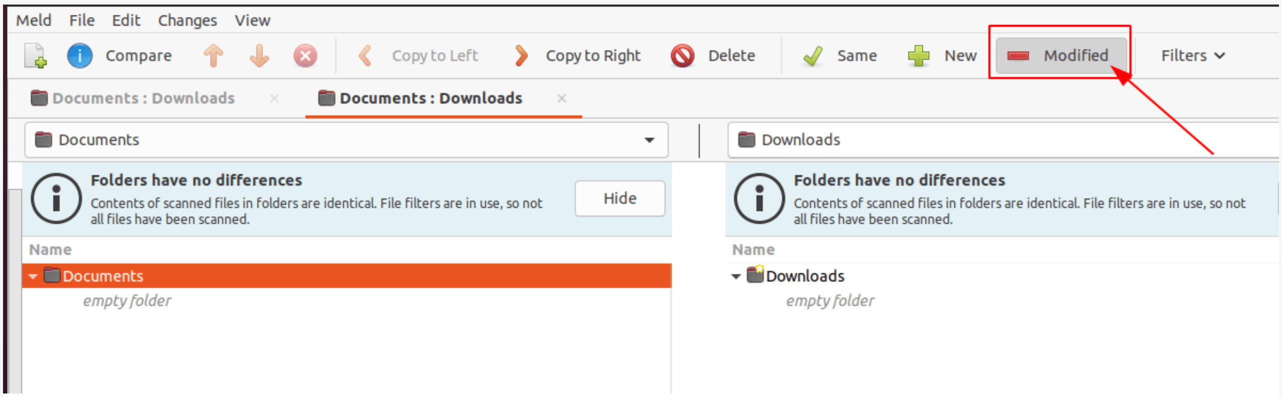
  - DocumentMetadata.iwa
  - DocumentStylesheet.iwa
  - Metadata.iwa

Fetch Files Between Two Directories in Linux

Meld New

This feature sorts out and displays new directory file additions between the two directories under comparison.



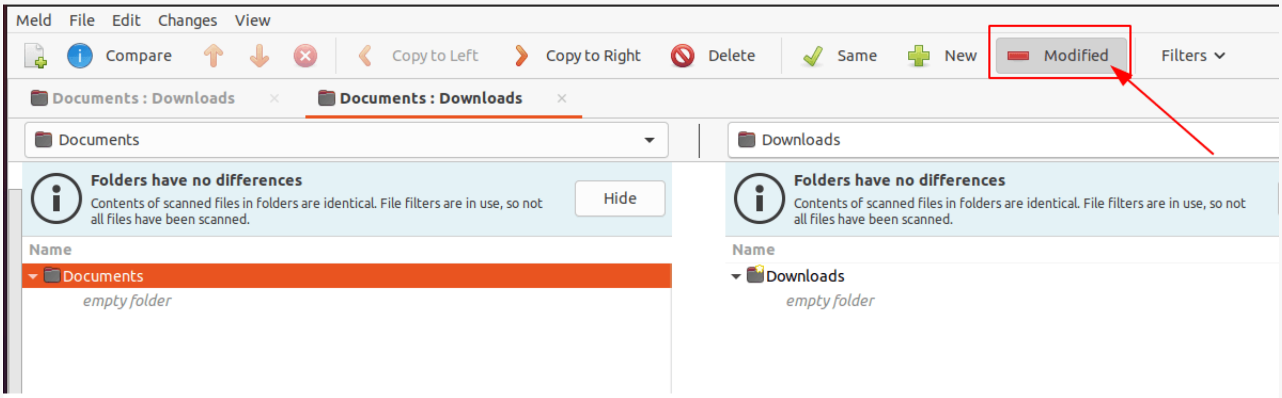
Folders have no differences

Contents of scanned files in folders are identical. File filters are in use, so not all files have been scanned.

List Files Difference Between Two Directories

Meld Modified

If you have a recently modified directory file you would like to take note of, this Meld feature takes care of such needs.



Folders have no differences

Contents of scanned files in folders are identical. File filters are in use, so not all files have been scanned.

List Modified Files Between Two Directories

Meld’s visualization makes it an ideal file and directory comparing tool as it easily deciphers the tiniest of differences between targeted files and directories. Also, if you are a developer addicted to **Git**, **Meld** is perfect for comparing your commits before you can push or pull any code changes to your repositories.

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2 thoughts on "How to Compare Files in Linux Using Meld (Diff/Merge) Tool"

Heiko

September 16, 2021 at 11:06 am

There is no need to use **sudo**, except for administrative tasks like installing packages.

Moreover especially graphical tools shouldn't be called with admin privileges.

Please refrain from publishing this level of knowledge.

Reply

Admin

Ravi Saive

September 16, 2021 at 11:15 am

@Heiko,

Thanks for the input, I have corrected the article as suggested by you…

Reply

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