# DirEqual User Manual

Select Language

# Introduction

DirEqual is an advanced directory compare utility for Mac. It allows detecting the tiniest changes between folders and display the result with a clear and intuitive way. The differences are highlighted using colors and icons indicating the difference type (size, date or item content).

# Description

DirEqual main window is divided into 4 sections: Toolbar, path panel, results view (list) and status bar.
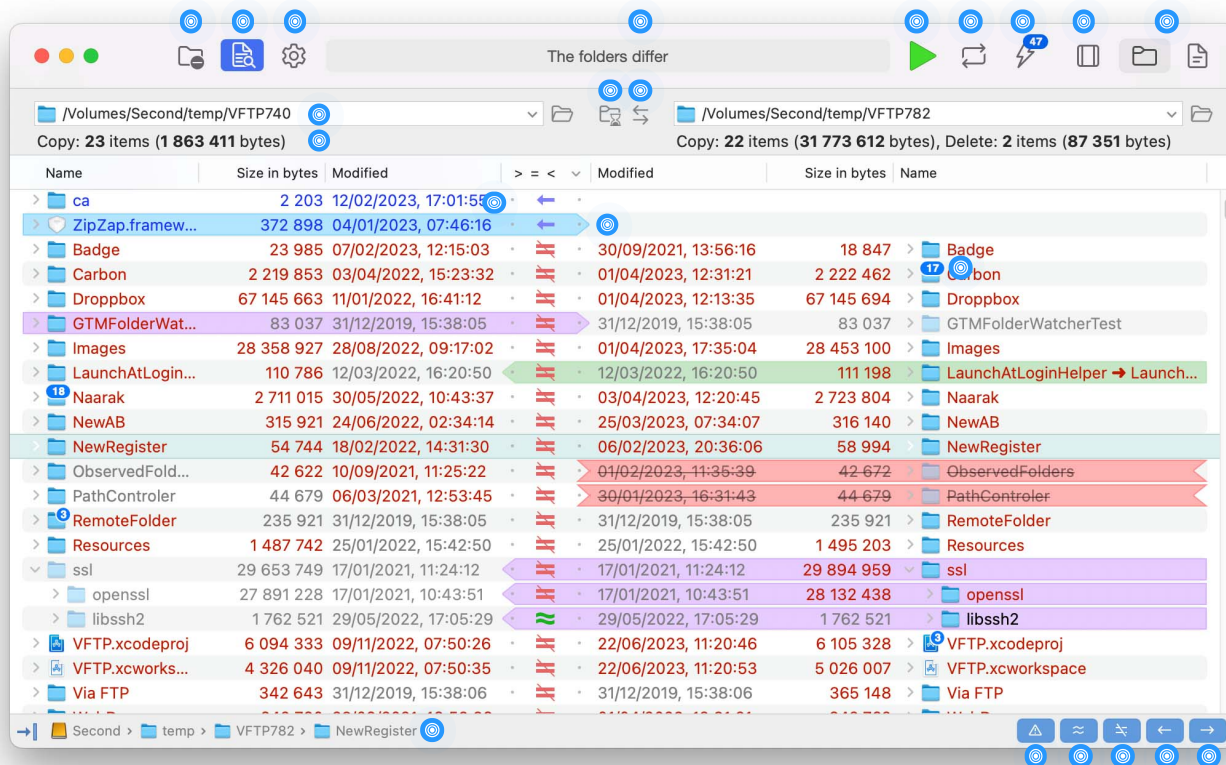


# Compare Folders

(1) The toolbar contains main controls and buttons. From the left side:

- **Excluded folder**. Allows to define folders which will be skipped when comparing the left and right folders.

- **Compare file content**. If disabled, only the date and size are used to determine whether the two files are the same. If you select this option, the files are compared byte by byte and the comparison stops after the first difference in the files. This gives a 100% guarantee that the compared files are equal or different. Only the contents of files with the same name and size are compared. Comparing file contents slows down the comparison process. The byte-by-byte comparison method used in DirEqual is more efficient (file scanning stops after the first difference is found) than file checksum. Each checksum method requires the entire file to be read first in order to calculate its checksum.

- Compare options.

- Status bar.

- **Start button**. Press to initiate the comparision. The button will change to Stop button which allows to abort the comparision.

- Synchronize button. Click to synchronize the two folders. Wikipedia.

- **Execute button**. When Copy/delete actions have been set, this button executes all the actions. To clear all the actions set previously, hold down the **Option key** while clicking the Execute button.

- **Info Panels button**. Click to open / close panels with detailed information on selected items.

- **The segment switch** which allows to choose between folder and file comparator.

(2) Compared folder paths. To select folders to compare:

- click the browse button on the left side and select folders, you can select two folders to compare at a time,

- drag and drop folders to compare. You can drag one or two folders at a time,

- manually enter folder paths,

- select folders from comparision history list.

To exchange left and right folders, click the left/right arrow button in the middle.

The control panel also displays basic statistics of the compared folders (size in bytes, number of files, number of folders). The statistics are displayed after compare process has finished.

(3) Comparision result filter:

△ show ignored files

≈, **=** show files detected as identical,

≠ show files which differ,

←, → - show files which only exist in left/fight folder.

(4) Folder compare options:
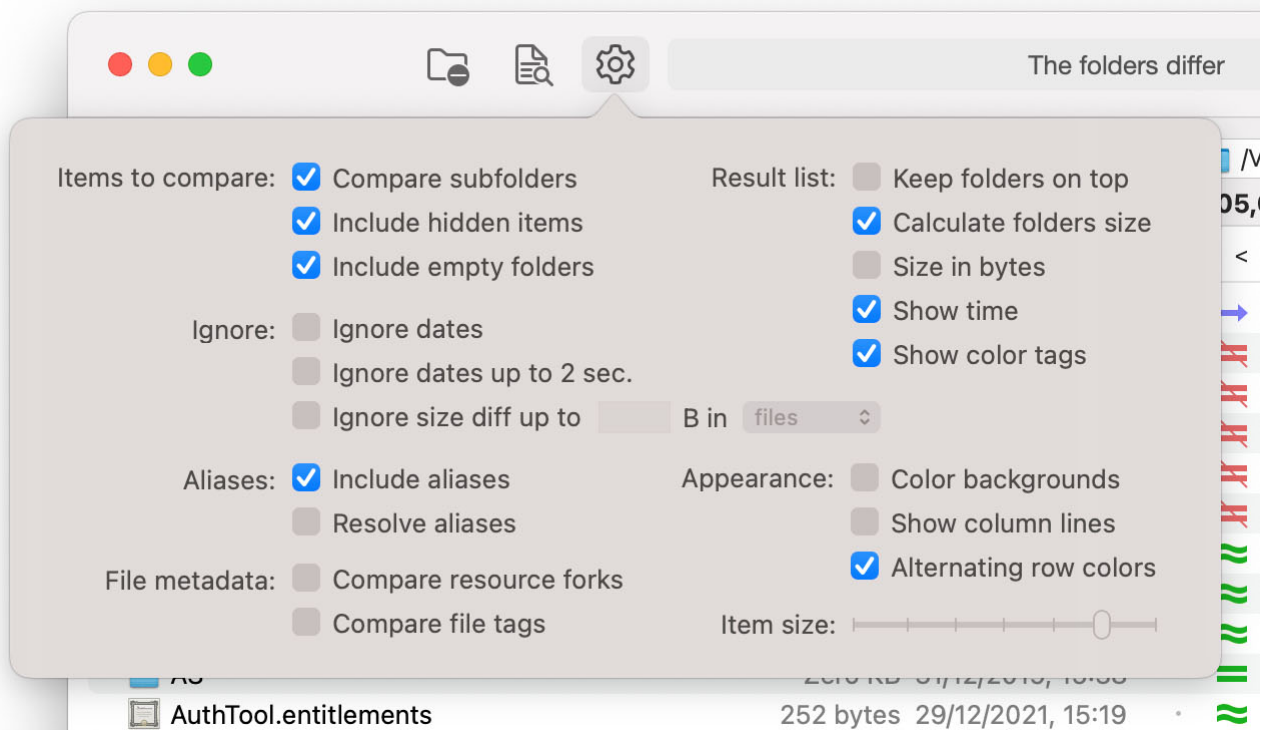
**Compare subfolders** - compare all subfolders.

**Include hidden items** - unselect to skip all hidden files and subfolders.

**Include empty folders** - show/hide empty folders.

**Ignore dates** - this option allows you to exclude dates from comparison.

**Ignore dates up to 2 s** - if the dates of the compared items differ by less than 2 seconds, the files are treated as having the same date.

**Ignore size diff up to .. B in files/folders** - if the sizes of the compared items differ by less then specified number of Bytes, the items are treated as having the same size. Sizes of such items are displayed in yellow color. Equal sign ≈ is also displayed in yellow color. Parent folders comparision icon is also displayed in yellow color. This option has no effect if "Compare file contents" is enabled.

Comparision result with "Ignore size differences up to 1 B in all items" option set.

**Include aliases** - aliases and symbolic links will be included in the result list.

**Resolve aliases** - aliases will be compared not by the contents but by resolving original files. If both compared aliases point to the same item or point to items which are on the same path in left and right folder, the aliases will be considered equal. For example:

left folder: /Users/test

right folder: /Volumes/backup

left alias points to /Users/test/applications/Mail.app

right alias points to: /Volumes/backup/applications/Mail.app

The aliases will be considered equal (even if /Users/test/applications/Mail.app and /Volumes/backup/applications/Mail.app are not equal).

If "resolve aliases" is off, aliases are compared as other files - by size, date and their content if "compare contents" is on.

**Compare resource forks** - if compared files contain resource forks, the forks will be also compared. This option works only if "Compare file contents" is enabled and if the both compared files have the same content.

**Compare file tags** - Works the same as "Compare resource forks" but for file tags instead of resource forks.

**Keep folders on top**. Folders and files will be grouped separately.

**Calculate folders size**. Calculate and display compared subfolder sizes.

**Size in bytes**. Sizes will always be displayed in bytes, even for large files and folders. E.g. "25 144" instead of "25 KB".

**Show time**. The date column will contain the file modification time.

**Show color tags**. Displays file / folders tags next to their names.

**Color backgrounds.** Draws color backgrounds under compared items.

**Show column lines.** Displays vertical lines separating columns in the result view.

**Alternating row colors**. The rows in the result view will be displayed with an alternating background color.

**Item size**. Adjust the row size and font of the comparison results list. You can also use the Cmd+ and Cmd- keyboard shortcuts.

(5) Comparison status displays progress bar during compare process. After the compare has finished a short info of the compare result is shown.

(6) Comparison result view displays all files and folders inside the compared folders. You can expand subfolders on the left or right side to examine files inside. To expand a folder and all its child subfolders, select the parent folder and hold down the **Option key** while clicking the expand button.

To collapse a folder and all its child subfolders, select the parent folder and hold down the **Option key** while clicking the collapse button.

Attributes that are different are displayed in red color. If a file name is displayed in red color, that means the files' content differ.

Right click on a file displays context menu for it. DirEqual recognizes clicking on a left and right file and displays the proper menu options for the left or right file. Clicking on the middle column (> = <) displays the menu for both left and right file.
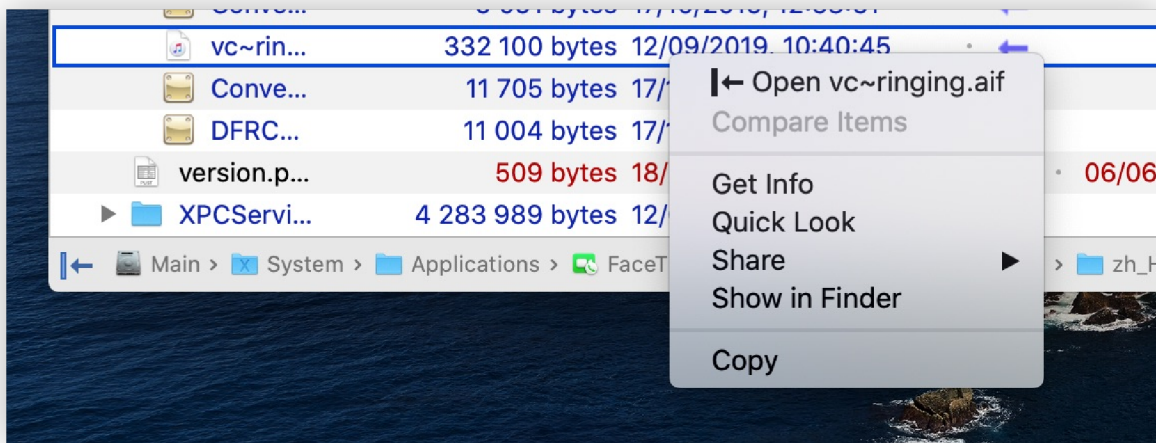


Click the compare results icon to display a panel with the details of both files or folders:
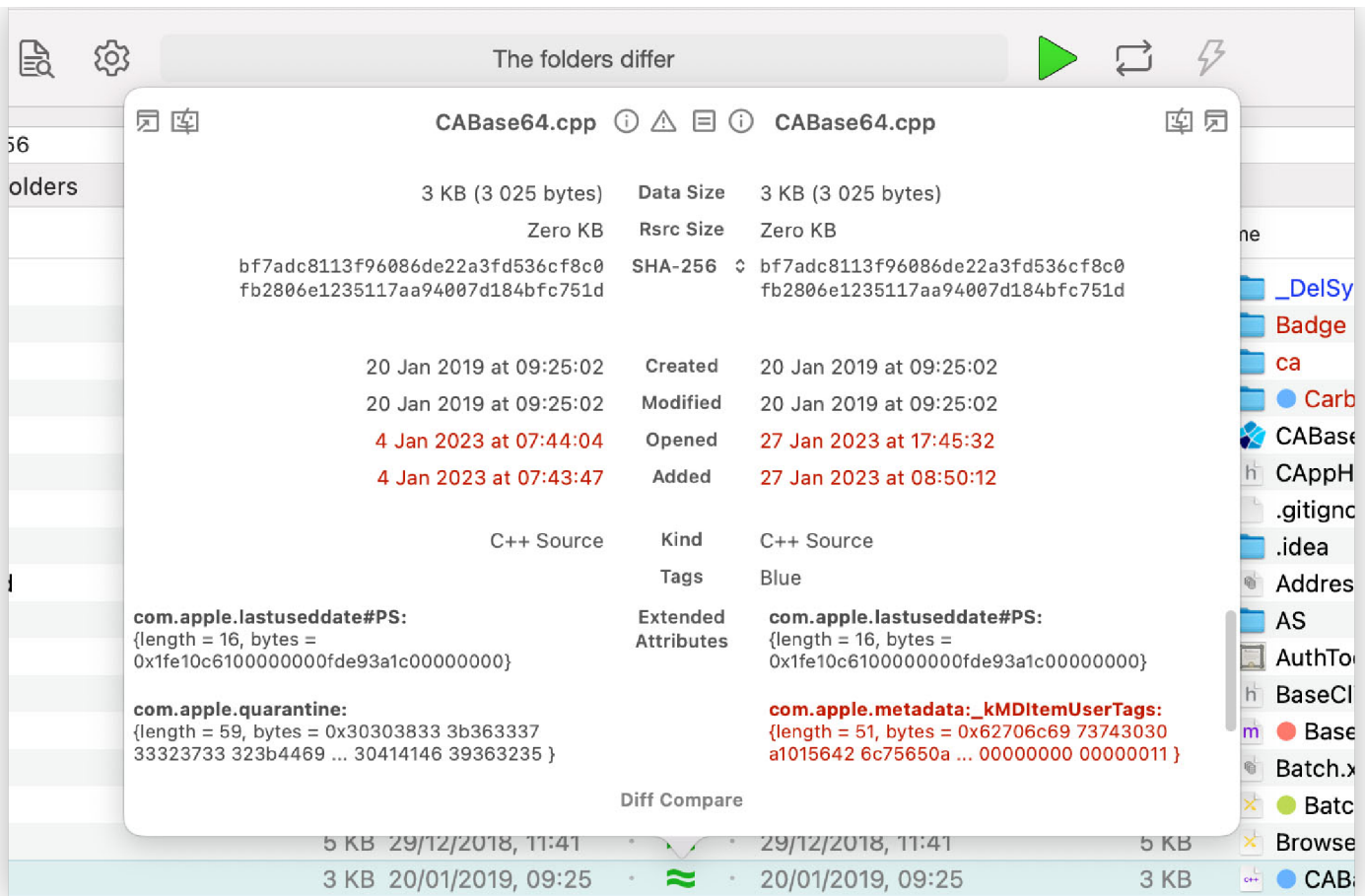
Double click the compare result icon to "ignore" the item. An ignored item cannot have an action assigned to it. Ignored items are mainly used to manually mark items that you are not interested in, even though they are different. You can also treat ignored items as "reviewed" or "processed" while you select items to copy or delete.

(7) Path navigator (not shown on the screenshot) displays the path of a selected file or folder. The path for left file is displayed if you select the file on the left side. The path for right file is displayed if you select the file on the right side.

(8) Blue and red backgrounds indicate actions to be performed. To set an action, click the dot in the middle column (> = <). You can set up three types of actions: Copy, Copy As, and Delete. When you click the dot in the middle column without pressing any additional key, the "Copy" action will be set. The action is represented by an arrow (red color if overwrite will cause overwrite). To set "**Copy As**" action hold down the **Shift key** while clicking the dot. To set the "**Delete**" action, hold down the **Option key** while clicking the dot. To select only items that differ, press the **Command key** and click the items' parent folder.

After clicking the dot icon on **selected elements**, the action will be applied to **all selected elements**:

| | ru.lproj | 50 011 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 93 875 bytes | | ru.lproj |
| | sk.lproj | 48 561 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 87 511 bytes | | sk.lproj |
| | sv.lproj | 46 101 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 87 120 bytes | | sv.lproj |
| | th.lproj | 46 009 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 87 962 bytes | | th.lproj |
| | tr.lproj | 64 999 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 87 970 bytes | | tr.lproj |
| | uk.lproj | 50 154 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 89 727 bytes | | uk.lproj |
| | vi.lproj | 48 070 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 87 923 bytes | | vi.lproj |
| | zh_CN... | 31 978 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 50 772 bytes | | zh_CN... |
| | zh_HK... | 31 611 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 51 597 bytes | | zh_HK... |
| | zh_TW... | 31 768 bytes | 17/07/2020, 10:48:29 | | | 27/05/2020, 11:23:57 | 51 663 bytes | | zh_TW... |
| | DFRCa... | 10 219 bytes | 17/10/2019, 12:53:58 | | | | | |
| | Conve... | 9 761 bytes | 17/10/2019, 12:53:55 | | | | | |
| | Conve... | 9 091 bytes | 17/10/2019, 12:53:51 | | | | | |
| | vc~rin... | 332 100 bytes | 12/09/2019, 10:40:45 | | | | | |
| | Conve... | 11 705 bytes | 17/10/2019, 12:45:40 | | | | | |
| | DFRC... | 11 004 bytes | 17/10/2019, 12:53:48 | | | | | |
| | version.p... | 509 bytes | 18/06/2020, 09:03:01 | | | 06/06/2020, 14:17:12 | 511 bytes | | version.p... |

The actions can be also selected from the right-click context menu. Right click on a dot icon to display the menu:
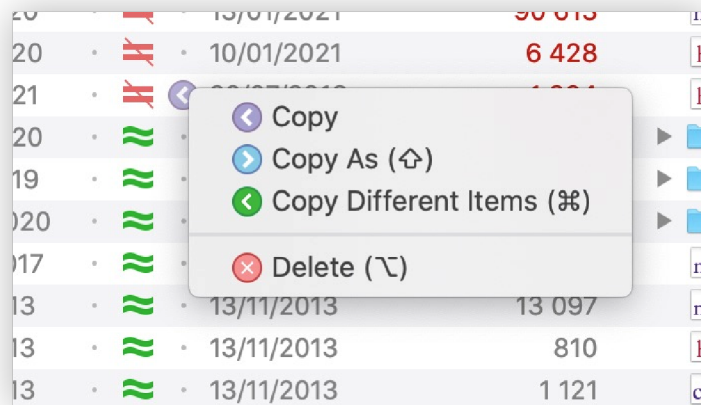


# Executing Actions

The number displayed in the blue circle badge shows number of actions to perform. Click "Execute" button to display the confirmation window and perform the actions:
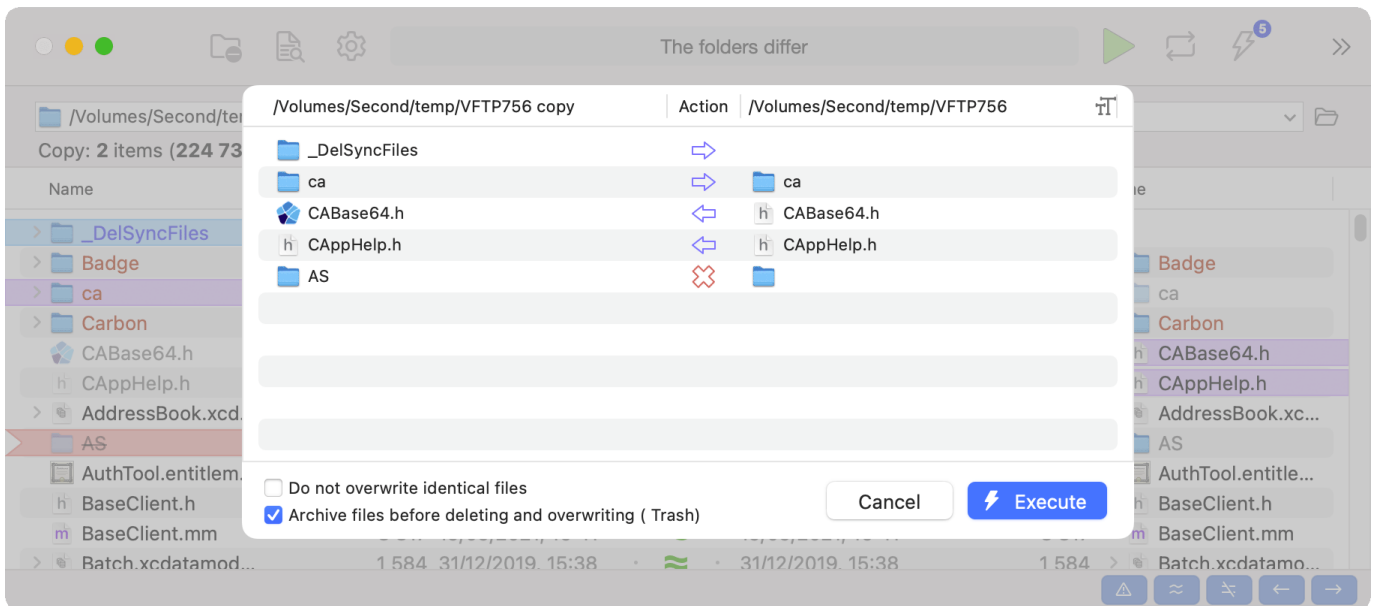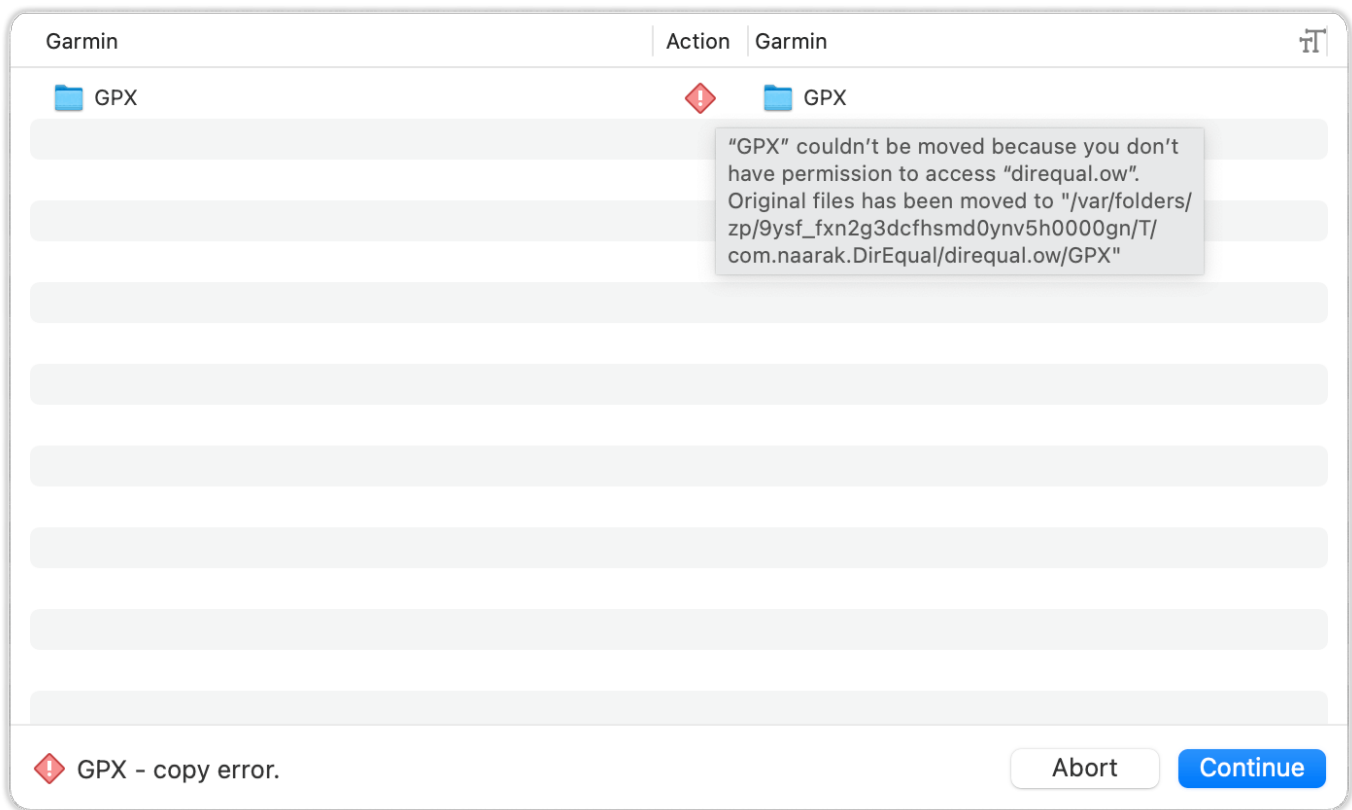
**Do not overwrite...** - - if the copied folder contains identical files as the destination folder, the files will not be copied.
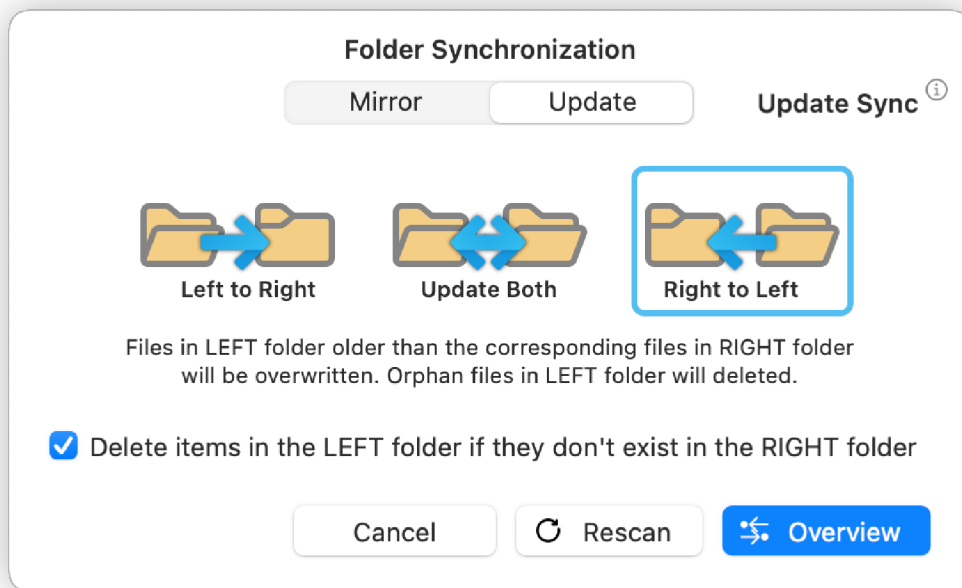
**Move items to Trash...** - all deleted or overwritten items will be moved to the Trash first. This will allow you to revert actions if you made a mistake when selecting actions.

# Action errors

If errors occur while performing an action (when copying or moving files and folders), they are marked with appropriate icons in the "Action" column. Hover over the error icon to display the error message as a tooltip. Click the icon to open the target item folder:

| Garmin | | Action | Garmin | | |
|--------|--|--------|--------|--|--|
| 📁 GPX | | ⚠️ | 📁 GPX | | |

"GPX" couldn't be moved because you don't have permission to access "direqual.ow". Original files has been moved to "/var/folders/zp/9ysf_fxn2g3dcfhsmd0ynv5h0000gn/T/com.naarak.DirEqual/direqual.ow/GPX"

⚠️ GPX – copy error.                    Abort    **Continue**

# Synchronization



**Folder Synchronization**

Mirror    Update        **Update Sync** ⓘ

**Left to Right**    **Update Both**    **Right to Left**

Files in LEFT folder older than the corresponding files in RIGHT folder
will be overwritten. Orphan files in LEFT folder will deleted.

☑ Delete items in the LEFT folder if they don't exist in the RIGHT folder

Cancel    ↻ Rescan    ⇅ **Overview**

**Update Sync** is a file synchronization in which newly added and newer files (by file modification date) will be copied.
The Update Sync can be one-way, where only orphan and newer files from the source directory are copied to the destination folder so that the destination folder contains the latest versions of

files. Optionally, orphan files in the destination directory can be deleted.

In the two-way Update Sync, orphan and newer files are copied between the two folders in both directions to keep both locations identical and updated. Files are never deleted during two-way update synchronization.

**Mirror Sync** is a one-way sync in which newly added and modified files in the source directory will be synced to the target directory but no files are copied back to the source location. After the sync is complete, the files in the target directory will be exactly the same as the files in the source directory.

Files in the target directory that are inconsistent with those in the source directory will be deleted or overwritten.

**Overview** - Runs on the current comparison result. Selects items to copy (and delete, if enabled). When the **Overview** is ready, click the "Execute" button to sync the files.

**Rescan** - Recompares folders and selects items to copy (and delete).

# Compare Files

To compare files, click the right button on the segment switch (2). You can also drag and drop two files to the header of the window. That will switch into file compare mode. Alternatively you can right click on a file in the folder compare result list and select "Compare Items" from the context menu.

Compare files allows to compare text or binary (non-text) files. The result of the comparison is displayed in the form of a listing with marked differences. Use arrow up / down to move between differences or use the minimap in the middle column to scroll compared files.
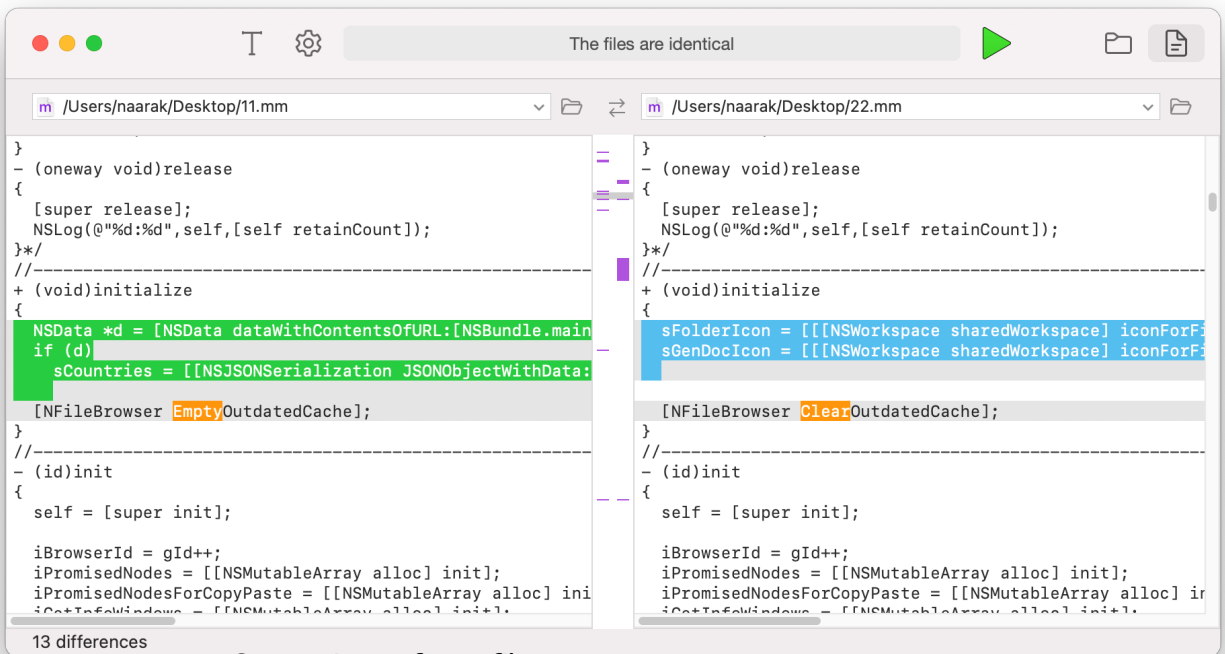
Comparison of text files.
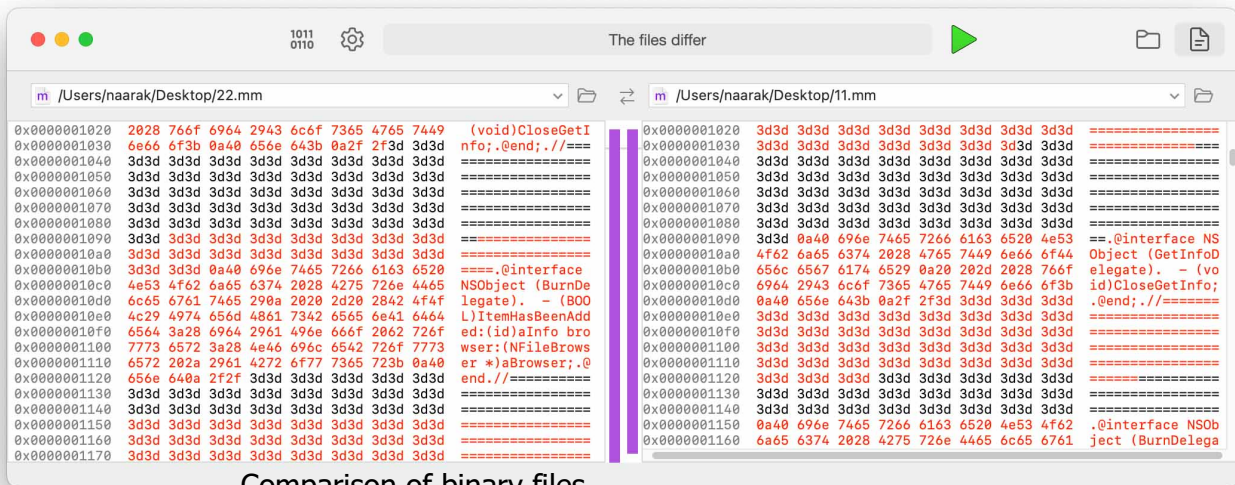

Comparison of binary files.

Red background - lines of text are different.
Blue background - a line of text exists only in one file.
White background - lines of text are the same.

Files type allows you to select a type of compared files (text or binary).
Font size allows to adjust font of the listing.

# Folder Snapshots

DirEqual allows you to create a snapshot of a folder. A snapshot is a file that contains detailed information about the files inside a folder: filenames, subfolders, file sizes and dates, tags, and other attributes needed to compare folders. The snapshot can also contain the checksum of each

file. This allows you to compare the contents of files. You can take a snapshot of a folder on one computer and compare it to a folder on another computer.

To create a folder snapshot, select "Create Folder Snapshot" from the DirEqual menu:
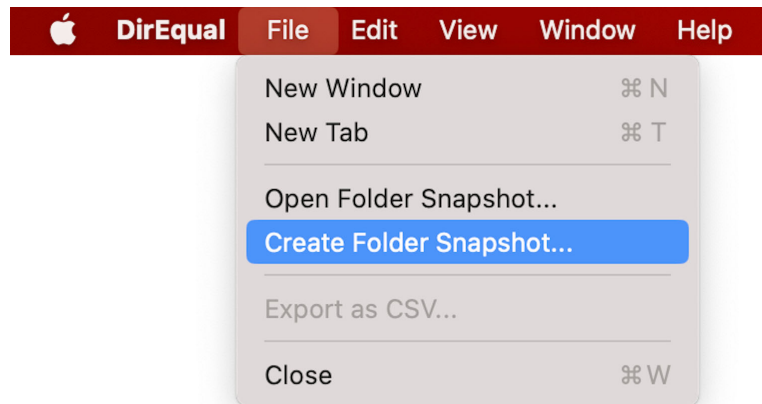


After selecting the folder, the folder scan will start and the following window will be displayed:
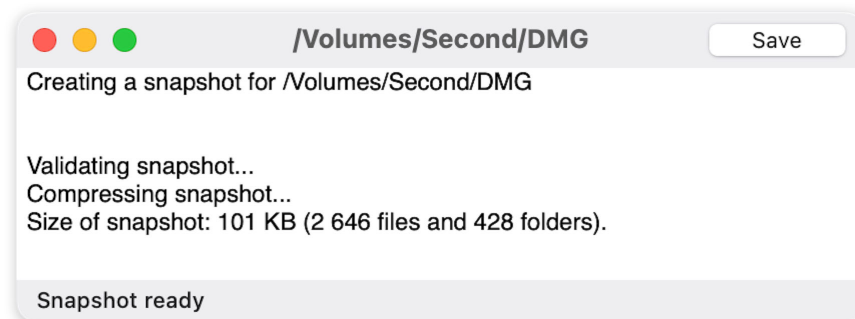


If errors occur while scanning the folder, they will be displayed in this window. The most common problem with file access is the lack of "Full Disk Access" permission. See here for more details.

Once the snapshot is created, press "Save" to save the snapshot file.

To preview a folder snapshot, select "Open Folder Snapshot" and select the snapshot file you created.
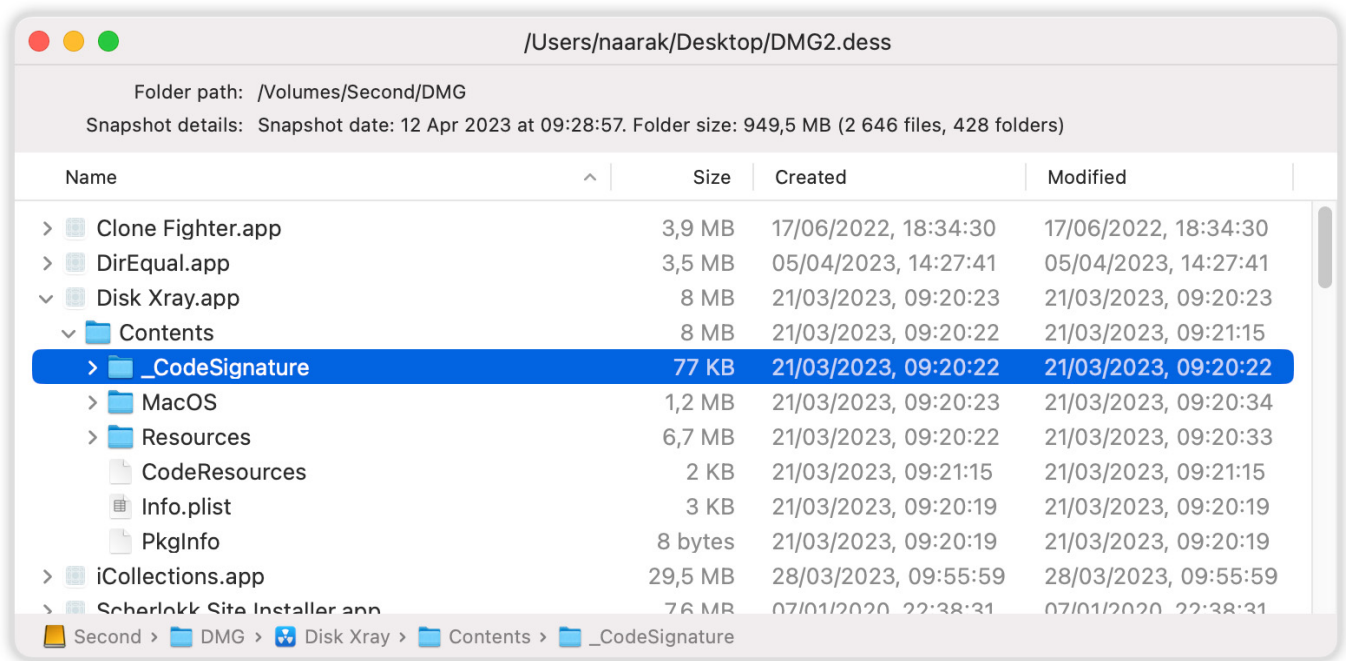
Preview of an example folder snapshot

# DirEqual Preferences
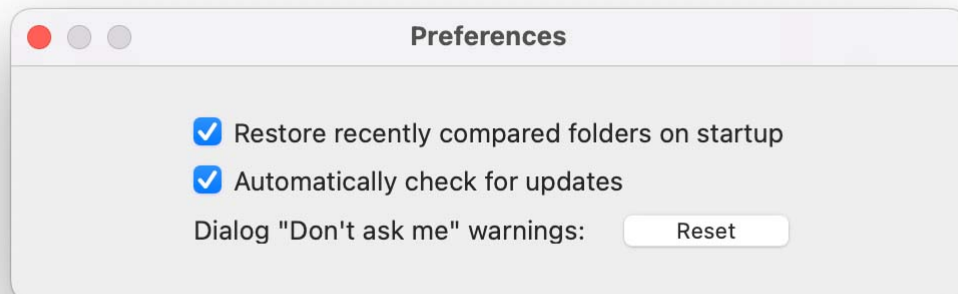


**Restore recently compared folders**. After DirEqual starts, the previously compared file and folder paths will be restored. Disable this option if you are comparing remote items that may not be available the next time you run DirEqual.

# Services

DirEqual uses macOS services to compare files selected from any Finder window. Select two files or two folders, then right click on the selection and select "Services" -> "Compare with DirEqual". This will run DirEqual and set the selected items to compare:
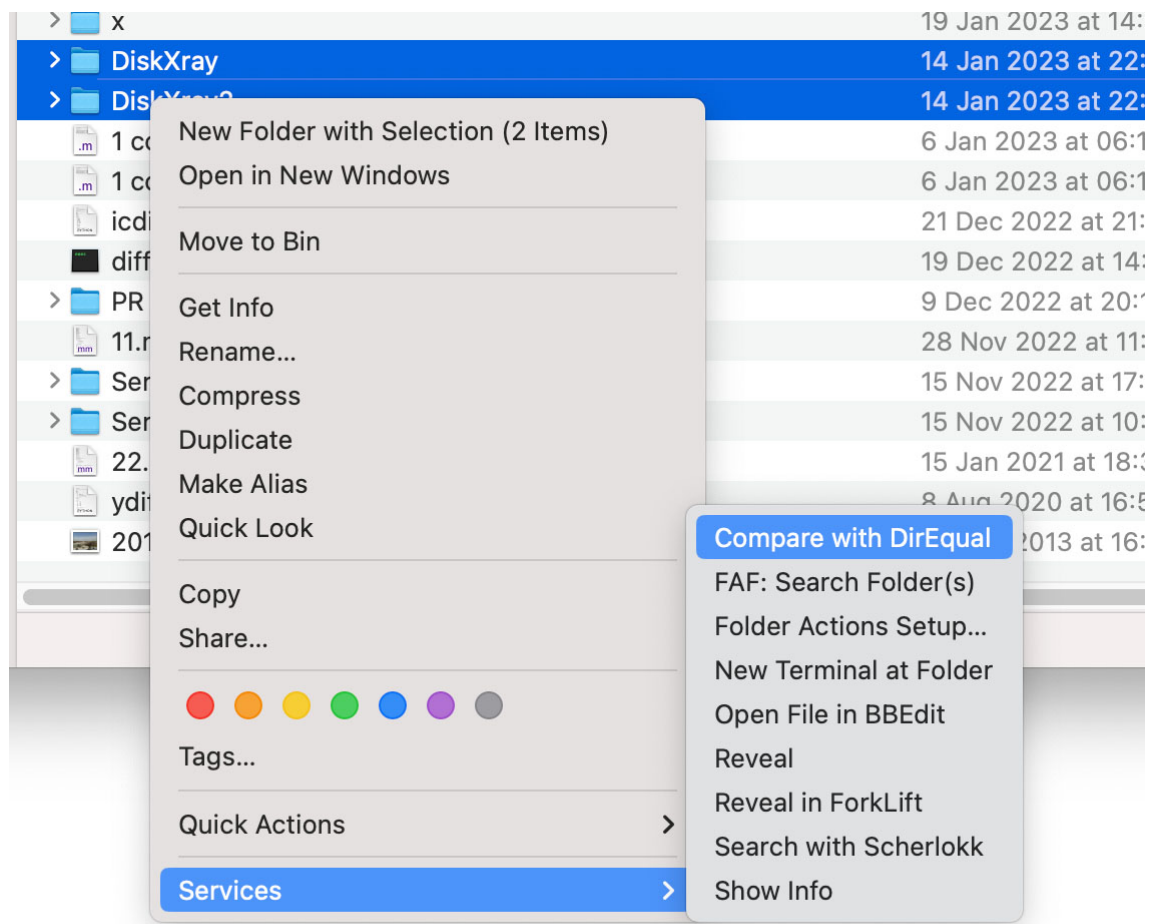
# Files Access Problems

If you encounter that some files or folders are not accessible by DirEqual (the size is listed as zero B), try the following:

**Reset DirEqual permissions:**
1. Open "Terminal" (can be found by Spotlight)
2. Enter the following command (you can copy and paste it):
tccutil reset All com.naarak.DirEqual
and press Enter key.
3. Log out and log in again.

**Add Full Disk Access:**
1. Open "System Preferences"
2. Click "Security & Privacy"
3. Click "Privacy" tab
4. Select "Full Disk Access" on the left list
5. Unlock the panell by pressing the "lock" button
6. Click "plus" button and add DirEqual app from the Applications folder.
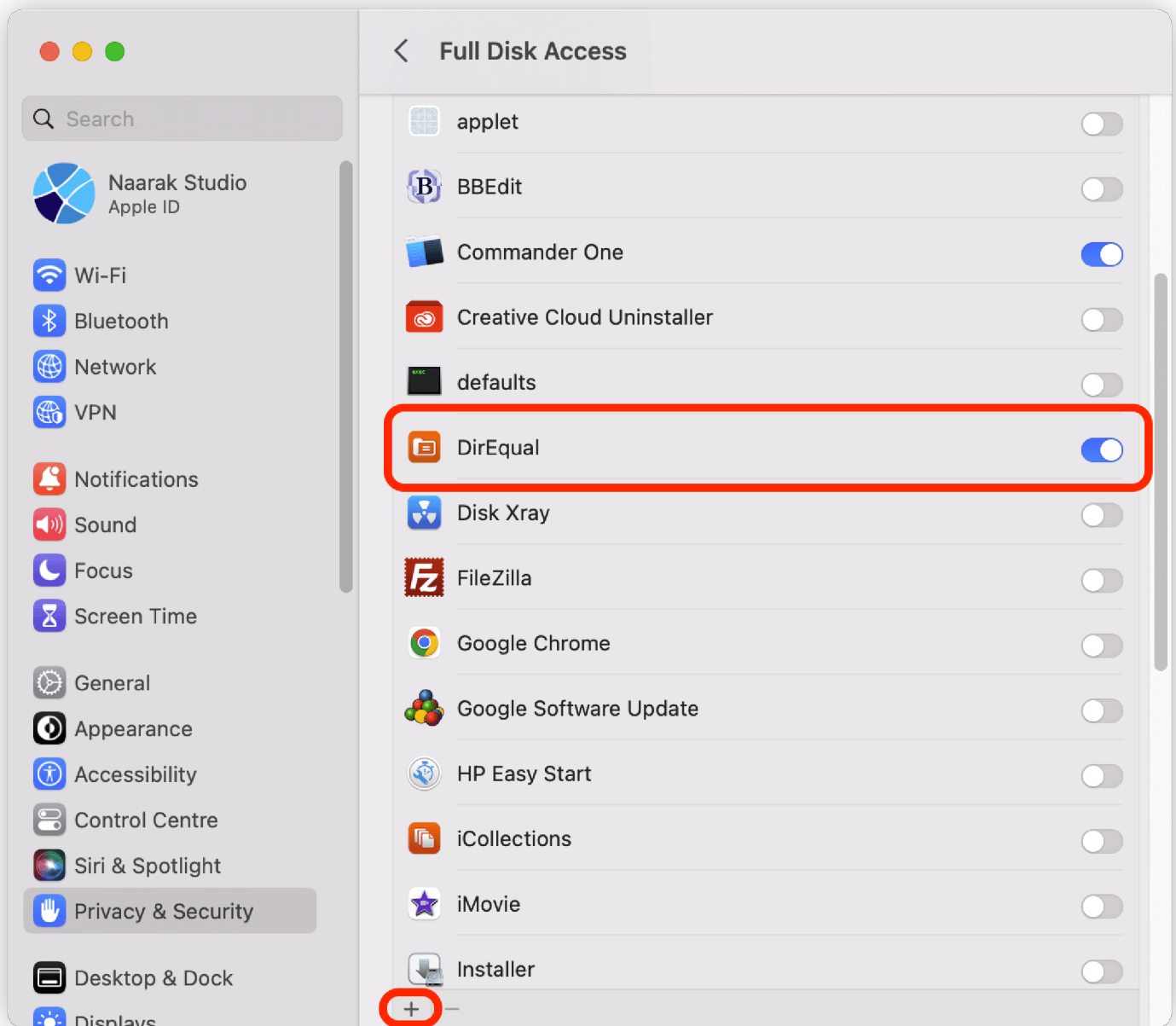
# The meaning of the symbols in DirEqual

**DirEqual Legend**

Comparison statuses:

**=** Items are identical (the same content).

**=R** The content of the files is identical. Resource forks differ.

**=T** The content of the files is identical. File tags differ.

**≈** Files have the same date and size.
Folders contain files with the same date and size

**≠** Items differ.

**←** Item exists only in left folder.

**→** Item exists only in right folder.

**⊘** Unable to access left or right item. Access denied.

**?** Folder has been modified. Compare again.

Ignored items:

**≠ ← →** Item ignored. For a folder, all child-items are ignored.

An ignored item cannot have an action assigned to it.
Ignored items are mainly used to manually mark items
that you are not interested in, even though they are different.

Item actions:

Item will be copied to the left folder.

Item will be copied to the left folder with a new name.

The item will be copied to the left folder
overwriting the left item.

Item will be removed.

To select an item to delete, press the Option key.
To select an item to copywith a new name, press the Shift key.
To select only items that are different, press the Command key.