SystHist 1.14 for macOS El Capitan, Sierra, High Sierra, Mojave, Catalina & Big Sur
Manual
Howard Oakley https://eclecticlight.co

SystHist shows full details of your Mac's system installation history, including all system and security updates. It's a companion to LockRattler, which shows current versions in detail.

What you need

- A Mac running macOS El Capitan, Sierra, High Sierra, Mojave, Catalina or Big Sur.
- A copy of the latest version of SystHist from The Eclectic Light Company
 (This is delivered by secure HTTPS download.)

Getting started

SystHist comes compressed as a Zip file, which you should decompress, and move the app to your preferred folder, such as /Applications. It is not fussy where it is run from, though.

SystHist is now not just properly signed, but is also notarized for macOS Mojave and later. If the app doesn't open correctly when you first try to run it, please contact me immediately.

⚠️ Each time SystHist runs, it checks its contents against its code signature. If it finds a discrepancy, it quits immediately but doesn't crash. If that happens when you try to run the app, first replace it with a fresh copy, in case the app has simply become corrupted. You may also wish to check for disk problems, and rule out the presence of malware, which could be responsible.

To run the app, simply double-click it, or open it in any of the other normal ways.When SystHist displays its only window, there are two checkboxes and a **Save** button. The window already contains three views of the full listing of system and security updates for that Mac.
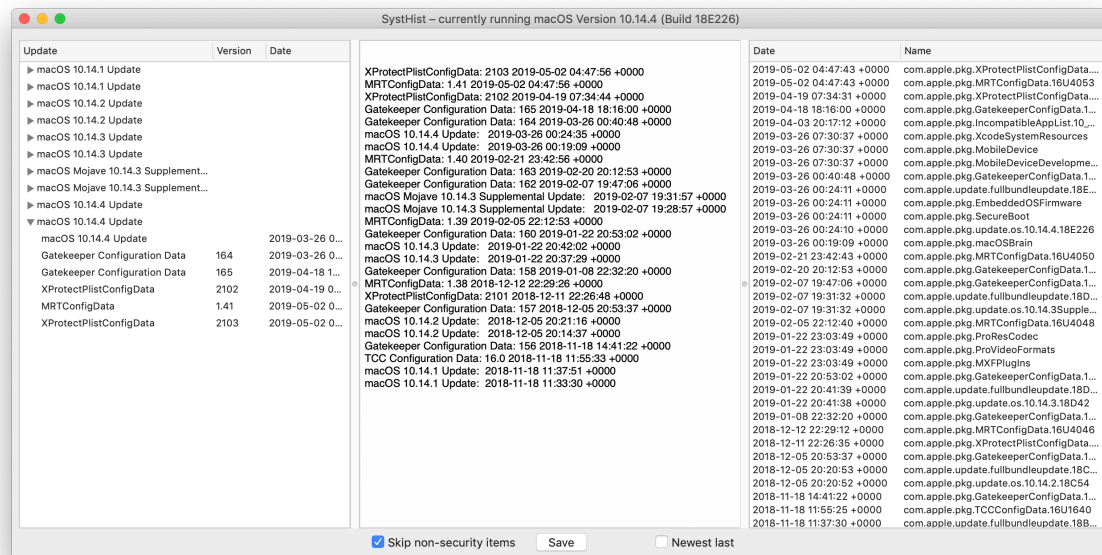
The **window name** tells you exactly which version of macOS is currently running. This may not be the same as the last update installed: details of updates are taken from the records which are kept on your Mac, and may not match for many different reasons.

Plain listing, centre view

When you **uncheck** the checkbox labelled **Skip non-security items**, SystHist lists all configuration data updates including Chinese Word List Updates, etc. in the plain list in the centre. When the checkbox is **ticked**, those non-security updates are hidden.

When you **tick** the checkbox labelled **Newest last**, SystHist orders the plain list in the centre and the table list at the right so that the most recent update is shown at the end of the list, and the oldest at the top. When the checkbox is **unchecked**, the most recent update is shown at the top of the list at the right.

To make the text larger in this view, press ⌘+, which will enlarge it by 1 point up to a maximum of 24 points; to make it smaller, press ⌘−, which will shrink it by 1 point down to a minimum of 4 points. The current text size is set as the default when you next open SystHist. Text size in the other two views cannot be changed, though.

Click on the **Save** button to save the results out to a text file.

Folding list, left view

The list of updates at the left cannot be reordered, nor can it skip non-security items (those are indented with a single tab to help you distinguish them). Updates are shown in chronological order, the most recent at the end, but grouped according to system updates. To view all updates which have been applied while macOS has been at any given version number, click on the disclose triangle at the start of the row named by that version.

For example, to view updates applied when that Mac was running macOS Mojave 10.14.4, located the row named **macOS Mojave Update 10.14.4**, and either click on the disclose triangle to its left, or double-click on that row. Click again on the disclose triangle, or double-click on that row, to fold that set of entries away. For each update, SystHist gives the update name, its declared version number, and the datestamp of its installation in UTC.

Tabular list, right view

The left and centre views derive their information from the record of software installations and updates in /Library/Receipts/InstallHistory.plist, filtering that list to discover only system and security updates. Sometimes, Apple installs software on your Mac without it being recorded in that list. The table list at the right is based on *all* the installer receipts found in /System/Library/Receipts and (in Catalina and later) /Library/Apple/System/Library/ Receipts, and includes many items which are not listed in the left and centre views. Some of these may turn out to be security updates.
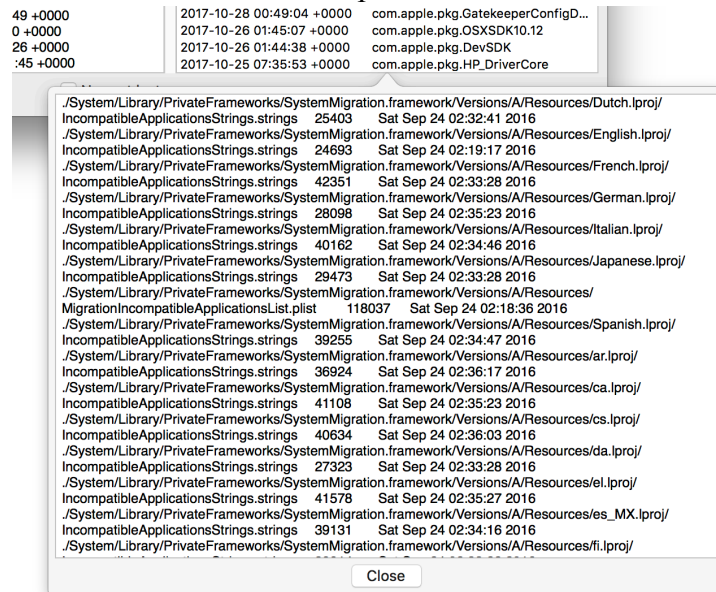
Updates are listed in chronological order in the right-hand view, and maintain synchrony with the **Newest last** checkbox, thus the listing in the centre view.

Click on any of the rows in the table and a floating window will pop over the main window listing the files which were installed in that update.

By examining the 'bill of materials' (BoM) file for that update, SystHist provides a detailed list of all the files which were installed, giving the paths to which they were copied, their size in bytes, and the date the installed file was created. Close that popover window by clicking on the **Close** button or pressing the Escape key.

⚠️   Currently, the right hand pane remains blank in Big Sur betas, as they don't appear to contain the requisite BoM files.

Further information is provided in the app's Help book, available through the **Help** menu, and the **Browse updates** item in that menu opens a list of software updates at the Eclectic Light Company blog.

When you're finished, closing SystHist's single window will also quit the app.

Checking for updates

Whenever you open SystHist, it may check to see if an update to the app is available. This doesn't use the popular Sparkle mechanism for updating in place, but works as detailed here.

Once the app has successfully completed its integrity check, it looks at whether update checking has been turned off in its preferences file. If that has, it abandons any attempt to check for updates. If checking is allowed, it then checks when it last checked for updates. If that was more than 12 hours ago, it continues to perform the check. It then connects to my GitHub server, from where it downloads a list of current versions of my apps. It doesn't upload any data to the GitHub server at all, and no statistics beyond GitHub normal connection figures are collected either: no personal identifiers are recorded.

If there is an update available, SystHist then checks that its location is on this WordPress blog, and posts a dialog which invites you to download the update.
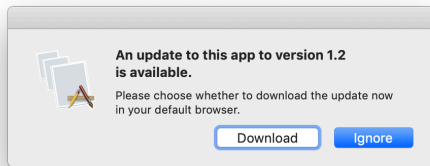
If you click on the **Download** button, it then points your default browser at that update, which should trigger the update to be downloaded to your normal downloads folder. The update is received as a regular Zip archive, and is exactly the same as you would download from the Downloads page here. It also carries a quarantine flag, so that when you unZip it and install the app inside, it undergoes normal first run 'Gatekeeper' security checks. If you click on the **Ignore** button, SystHist won't remind you about it again for another 12 hours.

An additional item at the end of the Help menu explains the update status. If no update check is performed, or the check fails, the last item reads **Update not checked**. If the check is performed and update information is obtained, even when no update is available or you decline to download it, that menu item reads **Checked for update** and is ticked (but still disabled).

You can customise this behaviour by changing SystHist's preferences. The keys to use are:
- `noUpdateCheck`, a Boolean. When set to `true`, this disables all update checking. Default is `false`.
- `updateCheckInt`, a real number (Double). When set to a value greater than 1.0, the minimum time interval between checks, in seconds. Default is 43200, which is 12 hours. If you set it to any value less than 1, SystHist will reset it automatically to that default.

To change either of these, use a Terminal command of the form
```
defaults write co.eclecticlight.SystHist updateCheckInt '10'
```
which works properly through the preferences server `cfprefsd`.

Support

Additional information and support are available from the **SystHist Support** command in the Help menu. This opens the app's product page in your default browser, providing useful information about updates and a link to the support page on which you can post comments and questions.

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Change List

1.14:
- fixed support for Catalina and Big Sur, including the right hand pane at last.

1.13:
- added support for Big Sur beta, but currently doesn't support the right hand pane
- Universal App.

1.12:
- added changing font size in centre view
- adopted build number convention.

1.11:
- added Catalina system update signatures
- added automatic update check and download.

1.10:
- added code signature check when opening app.

1.9:
- changed window name to give details of current macOS version
- updated Help book.

1.8:
- added support menu command
- ported to Xcode 10.2.

1.7:
- transferred TCC update to the 'security' list, so that it appears in the centre view properly.

1.6:
- added more fixes for macOS updates, to accommodate loss of conventions
- notarized
- ported to Swift 4.2.1 and Xcode 10.1.

1.5 (not released):
- no changes.

1.4:
- added support for Mojave 10.14 full release.

1.3:
- added support for Mojave beta releases.

1.2:
- fixed support for Dark Mode in Mojave.

1.1:
- built in Xcode 10.0 beta, under Mojave
- added **Browse updates** command
- added support for Dark Mode in Mojave.

1.0:
- added Help book.

1.0b1:
- added table view
- added BoM classes to access BoM files
- added popover view

- set three views inside Split View and adjusted resizing
- resized and adjusted outline view.

0.2a1:

- largely rewritten, structured to support data classes
- added outline view
- added option to reorder list of updates
- custom app icon.

0.1a1:

- Initial alpha release.

2 November 2020.