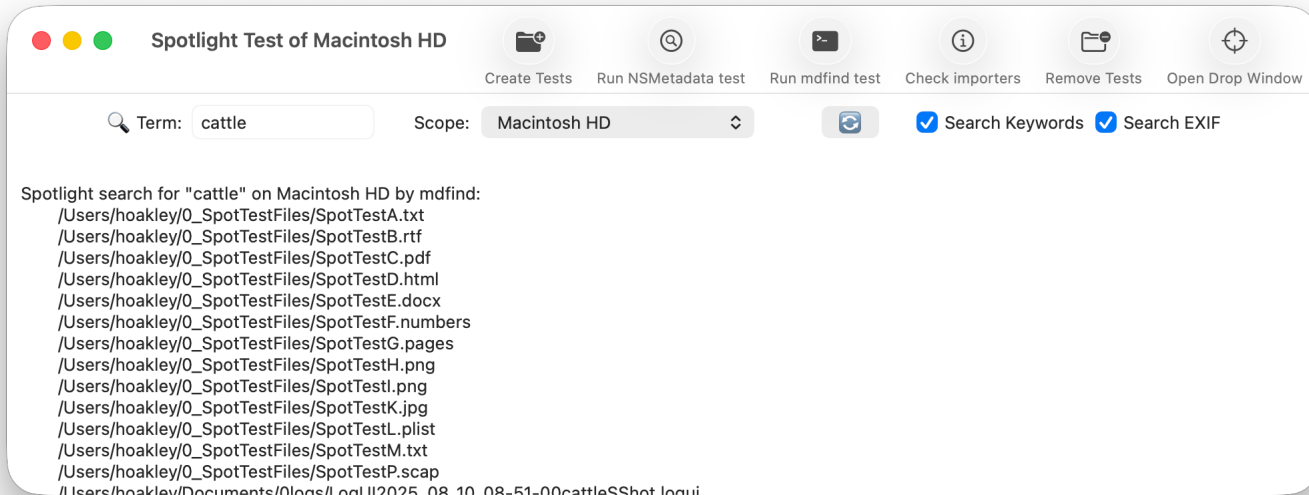


Start

→ [Start](#)



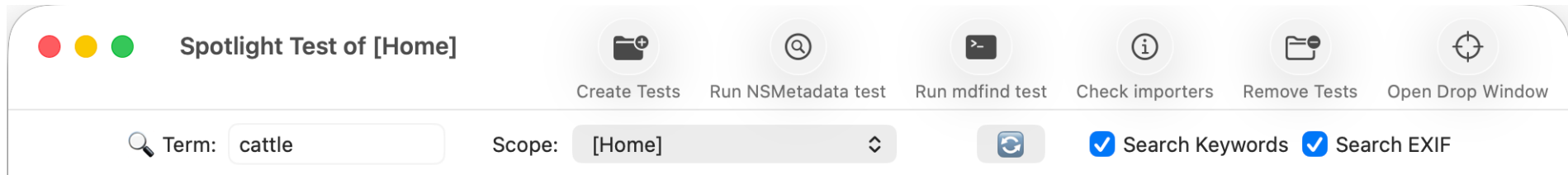
As its name suggests, SpotTest is a utility for testing Spotlight indexing and search. It's a more sophisticated and capable version of the basic tool built into [Mints](#), and intended to help diagnose problems and undertake research. It can create a folder containing 13 crafted test files ranging from plain text to images and PDFs, each of which has a test word *cattle* embedded in it. You can then use that to search in different ways to determine which have been indexed by Spotlight, and which can be found. To gain further detail, you can run these tests at known times, check log entries using Mints or [LogUI](#), and check test file metadata.

This version enhances the drag-and-drop window for inspecting file metadata.

- | | | | | |
|--|--------------------------------|---------------------------------------|-----------------------------------|--------------------------------|
| → Tools & settings | → Create tests | → Run NSMetadata test | → Run mdfind test | → Search scope |
| → Check importers | → Remove tests | → Standard test files | → Drop window | → Change list |

→ [Start](#)

Tools & settings



SpotTest's windows contain a toolbar with these tools, from the left:

- → [Create tests](#), to create the standard folder of test files in the user's Home folder.
- → [Run NSMetadata test](#), to search for the Term using Spotlight's code interface.
- → [Run mdfind test](#), to search for the Term using `mdfind` from within the app.
- → [Check importers](#), to list each of the mdimporter modules used to index the test files in the Home folder.
- → [Remove tests](#), to delete the standard folder of test files in the user's Home folder.
- → Open [Drop window](#), to inspect file metadata.

Settings for those are:

- **Term**, the search term to use, by default *cattle*, the word embedded in test files. If left blank, the default will be used. Avoid using short or common words here, as the results could be unmanageably large.
- **Scope**, the → [Search scope](#) to be used.
- a button to load or refresh the list of volumes listed as **Scopes**.
- **Search Keywords**, whether to include keyword extended attributes in the search.
- **Search EXIF**, whether to include embedded EXIF metadata in the search.

→ [Standard test files](#) → [Change list](#)

→ [Start](#)

Create tests

Click the **Create Tests** tool for SpotTest to create a folder named `0_SpotTestFiles` at the top level of your Home folder in the current Data volume. It will then automatically populate that folder with the 13 test files to be used.

You can also add your own files to that test folder, but note that they too will be deleted when you use the **Remove Tests** tool. You may wish to put copies in the test folder, and keep originals elsewhere.

You can move or copy this folder to another location if you wish to perform tests using another Scope. Provided that it remains in a searchable location within the scope of that search, SpotTest should still be able to find the files within it.

→ [Tools & settings](#)
→ [Remove tests](#)

→ [Run NSMetadata test](#)
→ [Standard test files](#)

→ [Run mdfind test](#)
→ [Drop window](#)

→ [Search scope](#)
→ [Change list](#)

→ [Check importers](#)

→ [Start](#)

Run NSMetadata test

Spotlight query "cattle" on Local Computer by NSMetadataQuery returned 36 results:

```
/Users/hoakley/0_SpotTestFiles/SpotTestA.txt  
/Users/hoakley/0_SpotTestFiles/SpotTestB.rtf  
/Users/hoakley/0_SpotTestFiles/SpotTestC.pdf  
/Users/hoakley/0_SpotTestFiles/SpotTestD.html  
/Users/hoakley/0_SpotTestFiles/SpotTestE.docx  
/Users/hoakley/0_SpotTestFiles/SpotTestF.numbers  
/Users/hoakley/0_SpotTestFiles/SpotTestG.pages  
/Users/hoakley/0_SpotTestFiles/SpotTestK.jpg  
/Users/hoakley/0_SpotTestFiles/SpotTestL.plist  
/Users/hoakley/0_SpotTestFiles/SpotTestM.txt
```

Click the **Run NSMetadata test** tool for SpotTest to run a search for the set Term (default *cattle*) on your Home folder when **[Home]** is selected, or any other volume selected in the **Scope** menu.

To do this, SpotTools constructs an NSMetadataQuery containing an NSPredicate according to the search settings. It will always include

```
(kMDItemTextContent CONTAINS[cdw] "[searchTerm]")
```

to look for the Term in text content. Depending on the settings, it may also include

```
OR (kMDItemKeywords CONTAINS[cdw] "[searchTerm]")
```

for keywords, and/or

```
OR (kMDItemAcquisitionMake CONTAINS[cdw] "[searchTerm]")
```

for the **Make** field in EXIF metadata.

Running that takes a few seconds before the results are returned and displayed in the window.

→ [Tools & settings](#)

→ [Remove tests](#)

→ [Create tests](#)

→ [Standard test files](#)

→ [Run mdfind test](#)

→ [Drop window](#)

→ [Search scope](#)

→ [Change list](#)

→ [Check importers](#)

→ [Start](#)

Run mdfind test

Spotlight search for "cattle" on Macintosh HD by mdfind:

```
/Users/hoakley/0_SpotTestFiles/SpotTestA.txt  
/Users/hoakley/0_SpotTestFiles/SpotTestB.rtf  
/Users/hoakley/0_SpotTestFiles/SpotTestC.pdf  
/Users/hoakley/0_SpotTestFiles/SpotTestD.html  
/Users/hoakley/0_SpotTestFiles/SpotTestE.docx  
/Users/hoakley/0_SpotTestFiles/SpotTestF.numbers  
/Users/hoakley/0_SpotTestFiles/SpotTestG.pages  
/Users/hoakley/0_SpotTestFiles/SpotTestK.jpg  
/Users/hoakley/0_SpotTestFiles/SpotTestL.plist  
/Users/hoakley/0_SpotTestFiles/SpotTestM.txt
```

Click the **Run mdfind test** tool for SpotTest to run a search for the set Term (default *cattle*) on your Home folder when **[Home]** is selected, or any other volume selected in the **Scope** menu.

To do this, Spot Tools constructs an `mdfind` command with the option

```
(** == '[searchTerm]*'cdw)
```

to search for the Term in *any* metadata or content that Spotlight has indexed, including text recognised in images using LiveText, and object descriptions using Visual Search and Look Up. This should be more comprehensive than any search performed using the NSMetadata test.

Running that is almost instantaneous, and results should be obtained rapidly and displayed in the window.

→ [Tools & settings](#)
→ [Remove tests](#)

→ [Create tests](#)
→ [Standard test files](#)

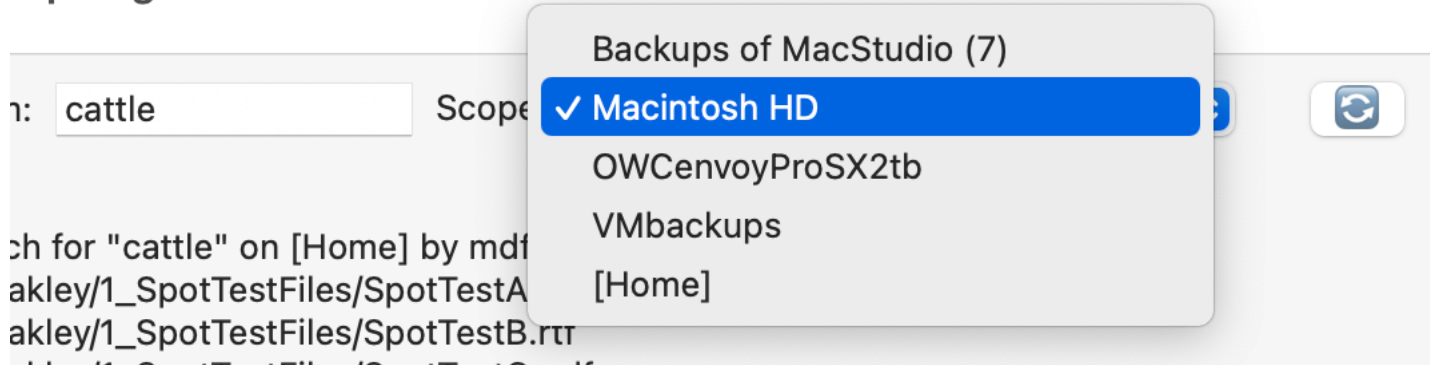
→ [Run NSMetadata test](#)
→ [Drop window](#)

→ [Search scope](#) → [Check importers](#)
→ [Change list](#)

→ [Start](#)

Search scope

Spotlight Test of Macintosh HD



The default Scope for both types of search is **[Home]**, for the current user's Home folder, including downloaded files in iCloud Drive. To change the scope, click on the  button for the menu to offer other local volumes (excluding Time Machine backups and hidden volumes).

The scope used depends on which is selected:

- **[Home]** restricts search to the Home folder (as `NSMetadataQueryUserHomeScope` or `-onlyin ~/`);
- any other selection restricts search to the selected volume (as `NSMetadataQuery.searchScopes` or `-onlyin /Volumes/volumename`).

→ [Tools & settings](#)
→ [Remove tests](#)

→ [Create tests](#)
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→ [Run NSMetadata test](#)
→ [Drop window](#)

→ [Run mdfind test](#)
→ [Change list](#)

→ [Check importers](#)

→ [Start](#)

Check importers

Imported '/Users/hoakley/0_SpotTestFiles/SpotTestA.txt' of type 'public.plain-text' with plugin /System/Library/Spotlight/RichText.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestB.rtf' of type 'public.rtf' with plugin /System/Library/Spotlight/RichText.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestC.pdf' of type 'com.adobe.pdf' with plugin /System/Library/Spotlight/PDF.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestD.html' of type 'public.html' with plugin /System/Library/Spotlight/RichText.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestE.docx' of type 'org.openxmlformats.wordprocessingml.document' with plugin /System/Library/Spotlight/Office.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestF.numbers' of type 'com.apple.iwork.numbers.sffnumbers' with plugin /System/Library/Spotlight/iWork.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestG.pages' of type 'com.apple.iwork.pages.sffpages' with plugin /System/Library/Spotlight/iWork.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestH.png' of type 'public.png' with plugin /System/Library/Spotlight/Image.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestI.png' of type 'public.png' with plugin /System/Library/Spotlight/Image.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestK.jpg' of type 'public.jpeg' with plugin /System/Library/Spotlight/Image.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestL.plist' of type 'com.apple.property-list' with no plugin.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestM.txt' of type 'public.plain-text' with plugin /System/Library/Spotlight/RichText.mdimporter.
Imported '/Users/hoakley/0_SpotTestFiles/SpotTestN.pdf' of type 'com.adobe.pdf' with plugin /System/Library/Spotlight/PDF.mdimporter.

Click the **Check importers** button for SpotTest to report which mdimporter modules were used by Spotlight to index each of the files in the test folder in the Home folder. This *doesn't* include any test folders with different names or in other locations. To obtain fuller information, use the → [Drop window](#).

To do that, SpotTest calls the command

```
mdimport -t -d1 [testfile]
```

for every file in the test folder apart from any hidden .DS_Store file. If you have added your own files to the test folder, they will be included. If you have moved the test folder elsewhere or deleted it, then this will fail. Note that the -d2 option isn't currently reliable, as for many files it crashes, hence the use of the -d1 option instead.

Because this command performs a Spotlight import on each of the files it tests, it can take many seconds to complete, so is run in the background.

→ [Tools & settings](#)
→ [Remove tests](#)

→ [Create tests](#)
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→ [Run NSMetadata test](#)
→ [Drop window](#)

→ [Run mdfind test](#)
→ [Change list](#)

→ [Search scope](#)

→ [Start](#)

Remove Tests

Click the **Remove Tests** button for SpotTest to delete its standard test folder and its entire contents. These aren't put in the Trash, but removed immediately.

If you wish to retain any files from the test folder, ensure you copy or move them from it before using this command.

If the test folder isn't in its standard location, at the top level of the user's Home folder, or its name has been changed from `0_SpotTestFiles`, this will fail.

→ [Tools & settings](#)
→ [Check importers](#)

→ [Create tests](#)
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→ [Run NSMetadata test](#)
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→ [Run mdfind test](#)
→ [Change list](#)

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→ [Start](#)

Standard test files

Standard test files created by SpotTest are lettered as:

- **A:** plain text, whose content should be indexed
- **B:** RTF, whose content should be indexed
- **C:** PDF, whose text content should be indexed
- **D:** HTML, whose content should be indexed
- **E:** DOCX, whose content should be indexed
- **F:** Numbers, whose content should be indexed
- **G:** Pages, whose content should be indexed
- **H:** PNG image, which should be recognisable by Visual Look Up for the content tag *cattle*
- **I:** PNG image, which should be recognised by Live Text as containing the word *cattle*
- **K:** JPEG image, whose embedded EXIF metadata contains a Make tag of *cattle*
- **L:** XML Property List, whose content includes the word *cattle*
- **M:** plain text, with a Keywords extended attribute containing *cattle*
- **N:** PDF, which contains the word *cattle* only in an image and not in text content, so shouldn't be recognised at all.

The NSMetadata test should be successful within a few seconds of creating test files A–G and L. If settings allow, K and M should also be found almost immediately. After several hours or days, it should also be able to find file I, following background indexing by `mediaanalysisd`, but *not* file H which is outside the scope of this search.

The `mdfind` test should be successful within a few seconds of creating test files A–G, and K–M. After several hours or days, it should also be able to find files H and I, following background indexing by `mediaanalysisd`.

No Spotlight search should be capable of finding file N.

→ Tools & settings	→ Create tests	→ Run NSMetadata test	→ Run mdfind test	→ Search scope
→ Check importers	→ Remove tests	→ Drop window	→ Change list	

→ [Start](#)

Drop Window



Drop files onto the Drop Window to inspect their metadata using `file`, `mdimport` and `mdls` command tools, in `file -bk filename`, `mdimport -t -d2 filename` and `mdls filename`. You can select and copy text output displayed here. Output from `file` is shown first, listing all detected file types.

Output from `mdimport` is shown below that on the left, and forms a catalogue of all the metadata attached to and associated with that file. That starts with a statement of the file path, its UTI type, and which `mdimporter` was used. Metadata obtained from extended attributes are prefaced by `:EA:`. These are the attributes that should be passed to Spotlight for indexing. Currently *this tool crashes* when trying to check most image files, for which results cannot be shown. This is a bug in macOS.

Output from `mdls` is shown on the right, and contains entries from Spotlight's indexes for that file, which should match those listed by `mdimport`. Neither tool lists indexed content such as text.

→ [Tools & settings](#)
→ [Check importers](#)

→ [Create tests](#)
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Change list

1.3:

- added file(1) info to drop window.

1.2:

- added drop window.

1.1:

- added support for scopes
- improved error messages.

1.0:

- first release, without support for additional volumes.

15 July 2026.