

# Reading Writing ".DS\_Store" Files

Version 8.9

May 7, 2023

A ".DS\_Store" file is a metadata file on Mac OS X that holds information about folder and icons as viewed and manipulated in Finder. One common reason to manipulate ".DS\_Store" files is to create a nice-looking disk image for a Mac OS X installer.

".DS\_Store" reading and writing is based on a reverse-engineered description of the file format [DS\_Store].

## 1 ".DS\_Store" Files and Entries

```
(require ds-store)      package: ds-store-lib

(read-ds-store path [#:verbose verbose?]) → (listof ds?)
  path : path-string?
  verbose? : any/c = #f
```

Reads the ".DS\_Store" file at *path* returning a list of store items.

```
(write-ds-store path dses) → void?
  path : path-string?
  dses : (listof ds?)
```

Writes *dses* to the ".DS\_Store" file at *path*, replacing the file's current content.

```
(struct ds (path id type data)
  #:transparent)
  path : (or/c path-element? 'same)
  id : symbol?
  type : (or/c 'long 'shor 'bool 'type 'ustr 'blob)
  data : (or/c exact-integer? boolean? symbol? string?
          bytes? iloc? fwind?)
```

Represents a entry in a ".DS\_Store" file. A ".DS\_Store" file typically has multiple entries for a single file or directory in the same directory as the ".DS\_Store".

The *path* should be 'same only for a volume root directory; information about a directory is otherwise recorded in its parent directory's ".DS\_Store" file.

The *id* symbols should each have four ASCII characters. See the ".DS\_Store" format description [DS\_Store] for more information *id* and *type* values.

The *data* field long should be an exact integer for 'long and 'shor types, a boolean for the 'bool type, a 4-character ASCII symbol for the 'type type, a string for the 'ustr type, and either a byte string, *iloc*, or *fwind* for the 'blob type.

```
(struct iloc (x y)
  #:transparent)
  x : exact-integer?
  y : exact-integer?
```

Represents an icon location for an 'Iloc entry.

```
(struct fwind (t l b r mode sideview?)
```

```
#:transparent)
t : exact-integer?
l : exact-integer?
b : exact-integer?
r : exact-integer?
mode : symbol?
sideview? : any/c
```

Represent a window location for a 'fwi0 entry. The `mode` field should have four ASCII characters, and recognized modes include 'icnv, 'clmv, and 'Nlsv.

## 2 Finder Aliases

A 'pict entry in a ".DS\_Store" file references a file through a Finder alias.

```
(require ds-store/alias)      package: ds-store-lib

(path->alias-bytes path [#:wrt wrt-dir]) → (or/c bytes? #f)
  path : path-string?
  wrt-dir : (or/c #f path-string?) = #f
```

Constructs a byte string to represent a Finder alias but using the "CoreFoundation" library on Mac OS X.

## **Bibliography**

[DS\_Store] Wim Lewis and Mark Mentovai, “DS\_Store Format.” <http://search.cpan.org/~wiml/Mac-Finder-DSSStore/DSSStoreFormat.pod>