Storing file resources

File resources are stored in named forks (also known as alternate data streams or ADS) or AppleDouble files.

Resource forks

Resource forks store file resource information in the file itself. The Hierarchical File System (HFS) of the Mac OS uses resource forks.

Resource forks in Mac OS X 10.5 to 10.11

Mac OS X 10.5 through 10.11 use named forks (ADS or alternate data streams) to store file resources by default.
Mac OS X 10.5 through 10.11 will use ADS mode unless you override it by writing the following file into the root of the SMB share:

- `.com.apple.smb.streams.off`— turns ADS mode off for all OS 10.5 or later clients and forces AppleDouble mode.
- `.com.apple.smb.streams.on`—turns ADS mode back on for all OS 10.5 or later clients.

Note: Do not change this setting unless you are absolutely sure you need AppleDouble mode, for example, if you need to use the share with 10.4 or earlier systems (which are not supported with Prinergy).

This table shows Mac SMB resource fork support for various Mac OS versions:
Note: Due to limitations with the built-in SMB in Mac OS X 10.7 and later, Mac OS X Xserve 10.7, 10.8, and 10.9 are not supported for file storage. Third-party solutions are available that provide SMB connectivity, but none are officially supported by Kodak.

Mac OS X Version	Compatibility
OS X 10.0 to OS X 10.4	SMB with AppleDouble only
OS X 10.5 to OS X 10.11	SMB with ADS or AppleDouble

Named forks (ADS or alternate data streams)

Named forks (also known as ADS or alternate data streams) allow files to be associated with more than one data stream. For example, you can use named forks to store resources.
The New Technology File System (NTFS) of Windows operating systems supports named forks. SFM and ExtremeZ-IP store resources in a named fork named **AFP_Resource**.
A named fork is an embedded part of a file hidden from view by almost all Windows tools (such as Explorer or dir). The named fork information can be viewed by tools such as streams from sysinternals.com. A typical Mac font (for example, Helve) will appear as a single file from Finder. From Windows, the resource fork stream will appear something like:

```
dir Helve
     03/15/1990   02:52 PM    0 Helve
     1 File(s)    0 bytes
streams Helve
     :AFP_AfpInfo:$DATA 60
     :AFP_Resource:$DATA 29753
```

Note: The Helve file size is 0 bytes, but the stream info is 30 KB.

When the Mac mounts a Windows share by SMB, depending on the configuration, the resource fork information may be written as AppleDouble. This is viewable by typical Windows applications (such as Explorer or dir) and will look something like:

```
dir Helve
     03/15/1990  02:52 PM   0 Helve
     33,563 ._Helve
```

Note: The Helve file size is still 0 bytes, but the AppleDouble size is 33 KB.

AppleDouble

UNIX file systems can store Mac OS-compliant resources with the AppleDouble file format, which places resources in a separate file with the same file name as the data file but prefixed with `._`. For example, a file named `input.pdf` has a corresponding AppleDouble file named `._input.pdf`.

Other

Other platforms, such as EtherShare and Xinet, store resources in separate files with special file name extensions.