Sansfer User Guide

Copy camera cards to every drive you choose, and prove that every copy matches the original.

Sa~~fe~~ + ~~Tra~~nsfer = Sansfer

Sansfer 1.0 for macOS 14 or later
Sansfer and Sansfer Pro · sansfer.com

About this guide

This guide explains every part of Sansfer, from the first card you back up to projects, file names, presets, reports and every setting. Read Part 1 once, in order. The other parts can be read when you need them.

How it is organised

- **Part 1, Getting started**: what Sansfer does, installing it, a tour of the window and your first backup, step by step.
- **Part 2, Offloading**: cards, drives, the transfer options, running and finishing a transfer, and what happens when one is interrupted.
- **Part 3, Organising**: projects, folders and card numbers, renaming files, presets and automatic card workflows.
- **Part 4, Records**: History, reports, checksum manifests and ASC MHL.
- **Part 5, Reference**: every setting, licenses and updates, troubleshooting, keyboard shortcuts and a glossary.

Conventions

Back Up	Names of buttons, menus and fields, exactly as they appear in Sansfer.
`{project}/{label}`	Something you type, or a path, file name or variable.
⌘ ↩	A keyboard shortcut: hold Command and press Return.
PRO	Part of Sansfer Pro. During the 14-day trial every Pro feature is available.

> THE SANSFER PROMISE
>
> Sansfer never erases, formats, moves or changes your source media. Cards are only read. Clearing a card is always your decision, made in your camera, after Sansfer has shown **Safe to erase**.

The productions, people and footage in the pictures are fictional. Screens are shown in dark appearance; Sansfer also has a light appearance (Settings, General).

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PART 1

Getting started

What Sansfer does and how it keeps footage safe, installing it, a tour of the window, and your first backup from card to two verified drives.

01

Welcome to Sansfer

Sansfer copies camera cards and other media to one or more drives, reads every copy back and proves that it matches the original before it calls a transfer done.

What Sansfer does

On a shoot, the moment a card leaves the camera is the moment footage is most at risk. Until it is copied, there is only one of it. Sansfer is built for that moment. It is used by DITs, data wranglers, camera assistants, editors, sound recordists and photographers who need to know, not hope, that a card is safely on several drives before it goes back into a camera.

Insert a card and Sansfer recognises it: an ARRI, Sony or Canon cinema camera, a sound recorder such as a Sound Devices or ZOOM, a stills camera or a drone. You choose the drives it goes to and press **Back Up**. Sansfer reads the card once, writes it to every drive, reads every copy back and compares it with the card. When every file on every drive matches, the card is **Safe to erase**.

How Sansfer keeps footage safe

Every file goes through the same six stages, on every drive:

STAGE	WHAT HAPPENS
1. Read once	The card is read a single time, however many drives you copy to. Its checksum is calculated while it is read.
2. Write to staging	On each drive the data goes into a hidden temporary file next to its final place, never on top of anything.
3. Flush	Sansfer asks the drive to commit the data to permanent storage, the drive's own write cache included.
4. Read back	The copy is read again from the drive, bypassing the Mac's cache, so Sansfer checks what actually landed on the disk.
5. Compare	The copy's checksum and size must match the card exactly.
6. Move into place	Only a verified copy gets its real name, in one step that never replaces an existing file.

CARDS ARE ONLY READ

Sansfer never erases, formats, moves, renames or changes anything on a card, not even in automatic workflows. When you rename files, only the copies get the new names.

WHAT A CHECKSUM CANNOT PROMISE

Verification proves that each copy matched the card when it was checked. It cannot protect against a drive that fails later, or damage that was already on the card. Keep your copies on separate physical drives: Sansfer tells you when two of them share one disk.

Sansfer and Sansfer Pro

Sansfer comes in two editions. Both copy and verify in exactly the same way: the same six stages, crash recovery, manifests and reports. Sansfer Pro adds what larger productions and teams need.

FEATURE	SANSFER	SANSFER PRO
Full verification of every file, SHA-256 or XXH64	Yes	Yes
Crash recovery and resume	Yes	Yes
Checksum manifests and PDF, CSV and JSON reports	Yes	Yes

FEATURE	SANSFER	SANSFER PRO
Renaming files	**Yes**	**Yes**
Destinations per transfer	Up to two	**Unlimited**
Copy order	Parallel or sequential	**Also cascading**
ASC MHL history	No	**Yes**
Projects, card labels and camera letters	No	**Yes**
History of every transfer	No	**Yes**
Clip preview and skimming	No	**Yes**
Built-in presets	Wedding, Photography	**All seven**
Your own presets, import and export	No	**Yes**
Automatic card workflows	No	**Yes**

Features that are part of Sansfer Pro are marked PRO in this guide. In Sansfer they show **— Sansfer Pro** next to their name and cannot be chosen. A license can be upgraded from Sansfer to Sansfer Pro at any time (see Licenses, trial and updates).

What you need

- A Mac with Apple silicon or an Intel processor, running macOS 14 Sonoma or later.
- A card reader, or the camera or recorder connected as a drive.
- For a real backup: at least two drives that are physically separate.

Sansfer works entirely offline. It needs no account and sends nothing anywhere. The only time it contacts the internet is when it checks for updates, and you can switch that off.

02

Installing and first launch

Install Sansfer like any Mac app. The first time you open it, four short screens explain what it does and help you add your first drives.

Installing Sansfer

1. Download Sansfer from **sansfer.com**. The download is a disk image (.dmg).
2. Open the disk image and drag **Sansfer** onto **Applications**.
3. Eject the disk image and open Sansfer from your Applications folder.

Sansfer is signed and notarised by Apple, so macOS opens it without warnings. It updates itself later (see Licenses, trial and updates); you never need to download it again.

The welcome screens

The first time you open Sansfer, a short introduction appears. Move through it with **Continue** and **Back**. You can open it again at any time with **Help › Welcome to Sansfer…**.

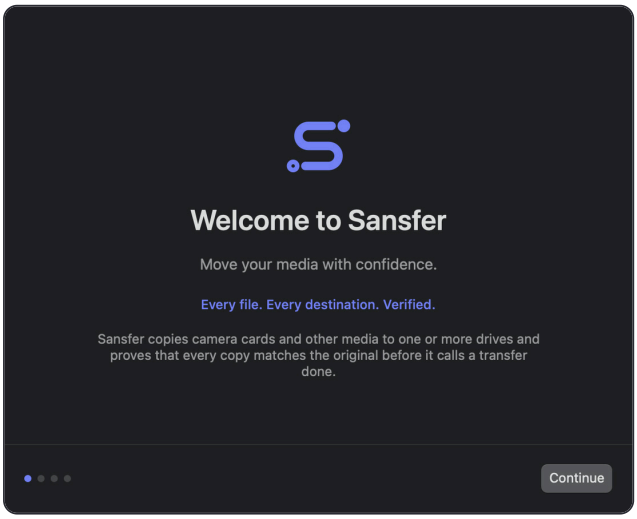


Figure 2.1 Welcome to Sansfer: what it does in one sentence.

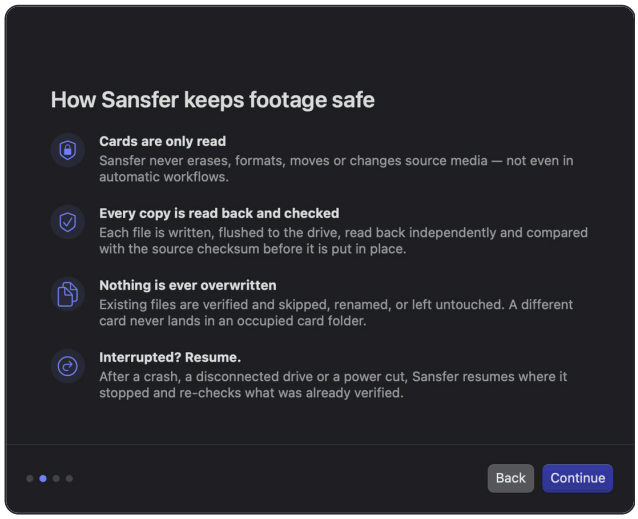


Figure 2.2 How Sansfer keeps footage safe.

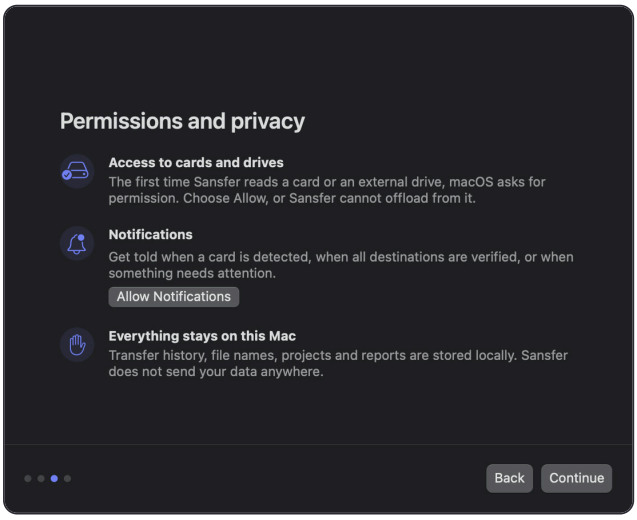


Figure 2.3 Permissions and privacy, with **Allow Notifications**.

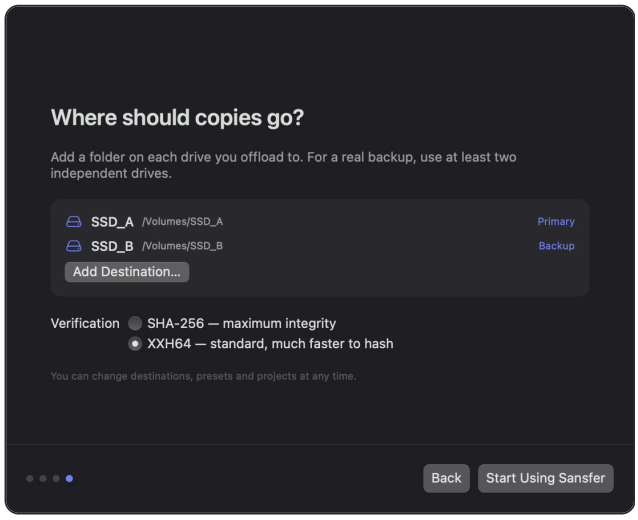


Figure 2.4 Where should copies go? Add your drives and choose a checksum.

The last screen, **Where should copies go?**, asks for a folder on each drive you offload to, and which checksum to use for verification. Both can be changed at any time, so if you are not sure, add your drives later and keep the default. Click **Start Using Sansfer** to finish.

Permissions

macOS protects removable drives and notifications. Sansfer asks for each once:

Access to cards and drives

The first time Sansfer reads a card or writes to an external drive, macOS asks whether Sansfer may access files on a removable volume. Choose **Allow**, or Sansfer cannot offload from it. If you chose otherwise, change it in **System Settings › Privacy & Security › Files and Folders**.

Notifications

Sansfer can tell you when a card is detected, when all destinations are verified, and when something needs attention. Allow notifications on the third welcome screen or when macOS asks. Which notifications you get is set in **Settings › General**.

The 14-day trial

For the first 14 days every feature of Sansfer Pro is available, counted from the first time you open Sansfer. The badge next to the name in the top bar shows how many days are left. After the trial, you need a license to start new transfers. A transfer that is running or interrupted always finishes, and your history and reports stay available. See Licenses, trial and updates.

03

A tour of the window

Sansfer has one main window with three sections. Offload, where you back up cards, is where you spend most of your time.

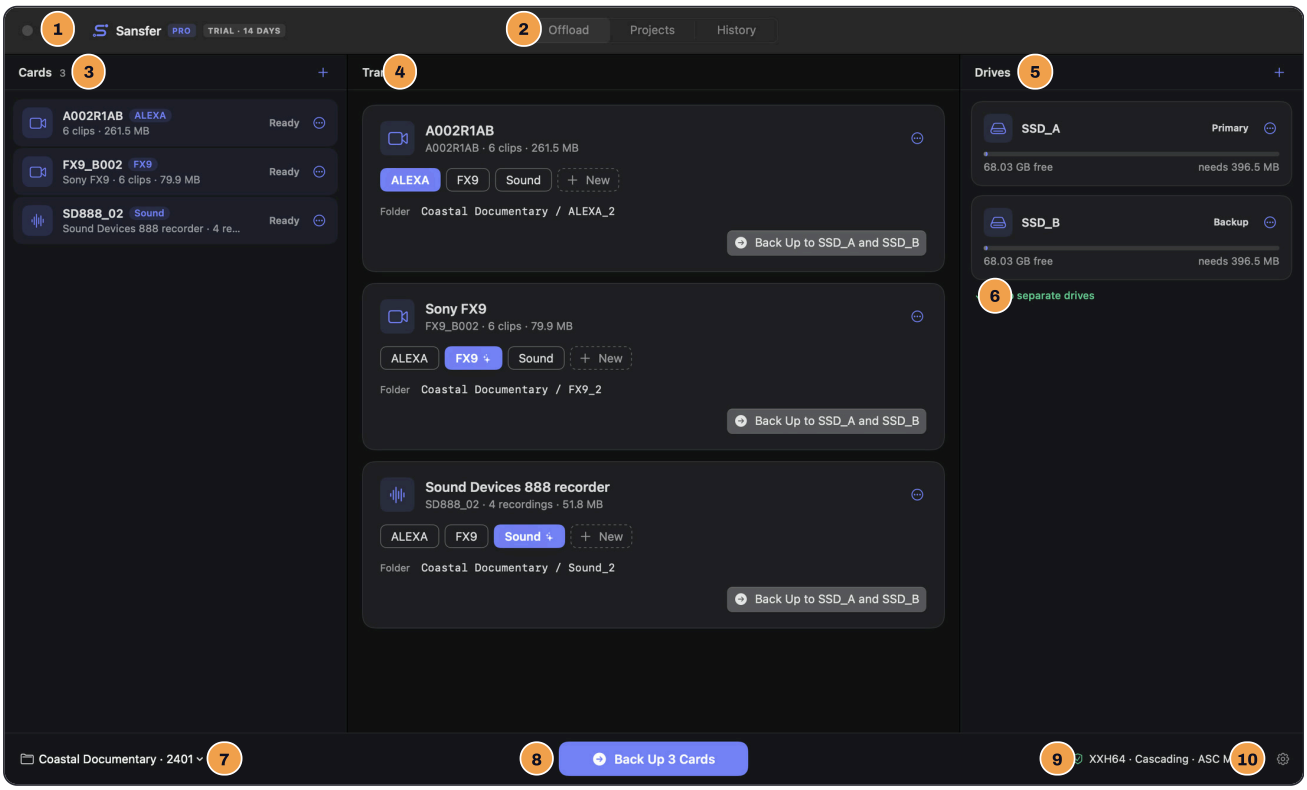


Figure 3.1 The Offload section with three cards ready to back up to two drives.

1. **Sansfer and your edition. PRO** for Sansfer Pro, and during the trial the days that are left.
2. **Sections. Offload**, **Projects** and **History** (⌘1, ⌘2, ⌘3).
3. **Cards.** Every card and folder Sansfer can back up, with what is on it and where it stands.
4. **Transfers.** Each selected card with its label, folder and button; below them the running transfers and the cards that are done.
5. **Drives.** The destinations, each with its role, free space and the space this transfer needs.
6. **Two separate drives.** Shown when your copies are on different physical drives.
7. **Project.** The production the cards belong to, or Quick copy.
8. **Back Up.** Backs up every card that is ready (⌘ ↩).
9. **Transfer options.** Checksum, ASC MHL, copy order, existing files and presets.
10. **Settings.** Everything else (⌘ ,).

The top bar

On the left is the Sansfer name with your edition: **PRO** for Sansfer Pro. During the trial a badge shows how many days are left. In the middle are the three sections:

Offload

Back up cards: choose cards and drives, start, follow and finish transfers.

Projects PRO

Your productions, each with its details, cameras, card labels, folder structure, file names and every transfer made for it.

History PRO

Every transfer ever made on this Mac, with its checksums, results and reports.

Offload

Offload has three columns and a bar along the bottom.

Cards

The left column lists every card and folder Sansfer can back up. An inserted camera card appears by itself. Each card shows its name, its label (what the card is, such as ALEXA, FX9 or Sound), what is on it, and its state: **Ready**, **Waiting**, a percentage while it is copied, or **Done**. Click a card to include it in the next backup or leave it out. Chapter 5, Cards, explains everything you can do here.

Transfers

The middle column is where the work happens. At the top is a panel for every selected card: what it is, which label it gets, the folder it will land in and a button to back up just that card. Below are the transfers that are running or waiting, and at the bottom the cards that are **Done**.

Drives

The right column lists the destinations: a folder on each drive you copy to. Each shows its role (Primary, Backup, Archive or your own name), how much space is free and, before you start, how much the transfer needs. See Drives.

The bottom bar

On the left you choose the project, in the middle is the big **Back Up** button, and on the right the transfer options and the Settings gear. The button says what it will do: **Back Up 3 Cards** when three cards are ready. When nothing is ready it is dimmed; point at it to see why.

Projects and History

The other two sections are described in Projects and History. In Sansfer (without Pro) they explain what they offer and how to upgrade.

Settings

Open Settings with the gear in the bottom bar, with **Sansfer › Settings…** or with ⌘ ,. Settings has seven tabs: General, Transfers, Verification, Organization, Reports, License and Advanced. Every option is described in Settings.

04

Your first backup

From card to two verified drives in eight steps. This is the whole workflow; the rest of this guide adds detail to each step.

---

1. **Connect your drives.** Use two drives that are physically separate, for example two SSDs, or an SSD and a RAID.
2. **Add the drives to Sansfer.** Click **+** at the top of **Drives** and choose a folder on each drive, or the drive itself. The first drive gets the role **Primary**, the next **Backup**. Sansfer remembers them.
3. **Insert the card.** It appears in **Cards** within a few seconds and Sansfer reads it: the camera, the clips, the size. No card reader at hand? Click **+** above **Cards** and choose a folder.
4. **Check what the card is.** In the card's panel the label is chosen for you when Sansfer recognises the camera, such as **FX9**. If it is not, click a label or type a new one under **What is this card?**
5. **Check where it goes.** The panel shows the folder the card will land in on every drive, for example `Coastal Documentary / FX9`. Free space is checked for you.
6. **Press Back Up.** Use the big button in the bottom bar (⌘ ↩) or the button in the card's panel. Before anything is written, Sansfer checks space, permissions, names and paths. If a check fails, the button tells you why.
7. **Follow the transfer.** The bar fills in blue as data is copied and in green as copies are verified. You can pause or cancel at any time; nothing on the card is ever touched.
8. **Wait for Safe to erase.** When every file on every drive matches the card, Sansfer shows **Safe to erase**. Eject the card. Only now may it be formatted in the camera.

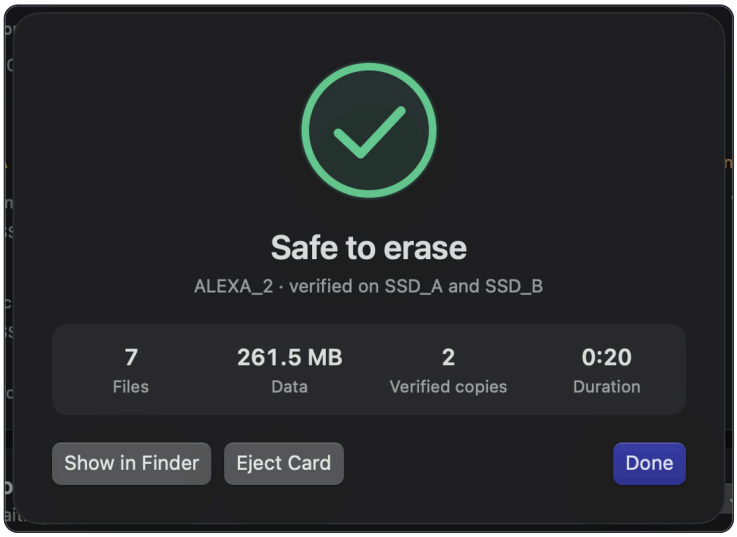


Figure 4.1 The end of every transfer: every file on every drive matches the card.

> TIP
>
> Back up several cards at once: insert them all, check their labels and press **Back Up 3 Cards**. They are copied one after another, in the order of the list, so the drives are never fought over.

> BEFORE YOU FORMAT A CARD
>
> Format a card only after **Safe to erase**, and only when the copies are on two separate drives. If all copies are on one physical disk, Sansfer says so and advises you to keep the card until a second drive has a copy.

PART 2

Offloading

Cards and what is on them, labels, clip preview, drives, the transfer options, running and finishing a transfer, and what Sansfer does when a transfer is interrupted.

05
Cards

Everything Sansfer backs up starts as a card in the left column: a camera card, a recorder's card, a drive or any folder.

Inserting a card

When you insert a camera card, Sansfer adds it to **Cards** by itself and reads it. Reading lists every file and folder, adds up the size and works out what the card is. Large cards take a few seconds; the row shows **Reading the card…** with the files and data found so far. Nothing on the card is changed.

Cards appear automatically only when **Show camera cards automatically when they are inserted** is on in **Settings › General** (it is, unless you turned it off). Sansfer recognises a camera card by its folder structure, so an ordinary USB stick or backup drive is not added by itself.

Adding a folder or drive yourself

Anything with media on it can be a card: a recorder connected over USB, a camera mounted as a drive, a folder on a NAS, or files someone sent you. Click **+** at the top of **Cards**:

- **Choose Folder…** opens a window to pick one or more folders (⌘ O).
- **Mounted Volumes** lists every connected drive and card. Pick one to add it.

You can also drag folders or drives from the Finder onto the **Cards** column.

What Sansfer recognises

Sansfer reads the structure and the metadata the camera or recorder wrote, and shows what it found in plain words, such as **Sony FX9 · 6 clips · 79.9 MB** or **Sound Devices 888 recorder · 4 recordings**.

KIND OF CARD	HOW SANSFER RECOGNISES IT
Sony cinema and broadcast cameras (FX9, FX6, FX3, VENICE, XDCAM)	The `XDROOT` and `PRIVATE/M4ROOT` structures, and the camera model and serial number in each clip's `M01.XML`.
Canon Cinema EOS	XF-AVC (`CONTENTS/CLIPS001`) and Cinema RAW Light (`.CRM`).
ARRI	ARRIRAW files. For Apple ProRes cards you choose the label yourself (see the next chapter).
RED, Blackmagic Design	R3D reels (`.RDM` , `.RDC`) and Blackmagic RAW (`.braw`).
Panasonic	P2 cards (`CONTENTS`) and the Panasonic video and photo folders.
Sound recorders (Sound Devices, ZOOM, Zaxcom and others)	Broadcast Wave files: the recorder's name in the files, and cards with only audio.
Stills cameras	The `DCIM` folder and RAW formats, and the make, model and serial number in each photo, from Sony, Canon, Nikon, Fujifilm, Panasonic and others.
DJI, GoPro	Their `DCIM` folders; their cards are suggested as **Drone** and **GoPro**.

The icon of a card follows what is mostly on it: a video camera for clips, a photo camera for stills, a waveform for sound recordings. A card with a mix (a stills camera that also films, for example) gets the icon of what it holds most of.

A card Sansfer does not recognise is still backed up completely. It just has no camera name, and in a project you choose its label yourself.

What is copied

Sansfer copies the complete card structure exactly as it is: clips, audio, XML, sidecar files, proxies, thumbnails and hidden camera metadata. Many applications need that structure to read a card, so nothing is left out or rearranged. Only operating-system housekeeping is skipped: `.DS_Store`, AppleDouble `._` files and Spotlight and Trash folders. You can switch that off in **Settings › General**. Symbolic links are never followed, so nothing from outside the card is copied.

To copy only some files, for example only the photos from a card, use the file selection in **Settings › Transfers** or a preset such as **Photography import**.

Selecting cards

Click a card to select it; click again to leave it out. A selected card gets a panel in **Transfers** and is included when you press **Back Up**. A card that was just backed up is deselected by itself.

The state on the right of each card tells you where it stands:

Ready	Selected, read and ready to back up.
Label?	In a project, the card still needs a label (see the next chapter).
Waiting	In the queue, after the card that is being copied now.
41%	Being copied and verified.
Done	Backed up and verified, now or at an earlier time.
Offline	The card was removed. It stays in the list until you remove it.
Error	The card could not be read. Point at the row to see why, then use **Read Again**.

The card menu

Click the ⋯ button on a card, or right-click it:

Select / Deselect	Include the card in the next backup, or leave it out.
Show in Finder	Opens the card in the Finder.
Preview Clips… PRO	A still of every clip, to skim through before you copy (see Previewing clips).
Preview Structure…	The folders and files that will be copied.
Read Again	Reads the card again, for example after files were added.
Eject	Ejects the card so it can be taken out. Not available while it is being copied.
Remove from List	Takes the card out of Sansfer. Nothing on it is changed.

Preview Structure

Shows the card's folders and how many files each holds, exactly as they will be copied. A Sony FX9 card, for example, has its clips in `XDROOT/Clip`, proxies in `XDROOT/Sub` and thumbnails in `XDROOT/Thmbnl`. Everything is copied as shown; nothing on the source is moved, renamed or deleted.

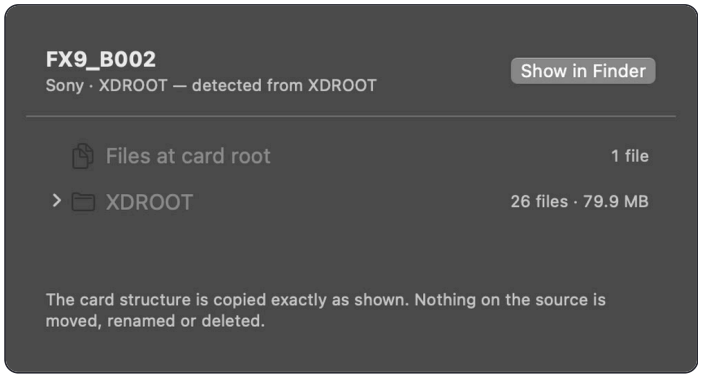


Figure 5.1 The structure of a Sony FX9 card.

A card that was backed up before

Sansfer remembers every card it has backed up and verified. When the same card is inserted again, its panel says so, for example **Already backed up on 18 Nov 2026 at 09:34**. If you back it up again to the same folder, identical files are checked rather than copied again, so nothing is duplicated.

06

What is this card?

In a project, every card gets a label that says what it is: ALEXA, FX9, Sound, Drone. The label names the card's folder on the drives and keeps cards from different cameras apart.

Labels

Each card's panel in **Transfers** shows the labels of the project as buttons. The chosen label is filled in; the folder line below shows where the card will land, for example `Coastal Documentary / FX9`.



Figure 6.1 A Sony FX9 card. The label FX9 was suggested (the sparkle) because Sansfer recognised the camera.

Sansfer suggests a label whenever it can, so most cards need no click at all:

- A camera that was labelled before in this project gets the same label again. Sansfer remembers each camera body by its model and serial number.
- A card with only audio recordings is **Sound**.
- A camera Sansfer recognises gets its short model name, such as **FX9**, **FX6** or **A7R V**.
- GoPro and DJI cards are **GoPro** and **Drone**.

A suggested label has a small sparkle. Click another label to change it.

Choosing a label yourself

When Sansfer cannot tell what a card is, nothing is chosen: the card shows **Label?** and the panel asks **What is this card?**. This happens, for example, with an ARRI ALEXA card in Apple ProRes, which carries no camera model Sansfer can read. Sansfer never guesses here, so a card can never land in another camera's folder by accident.

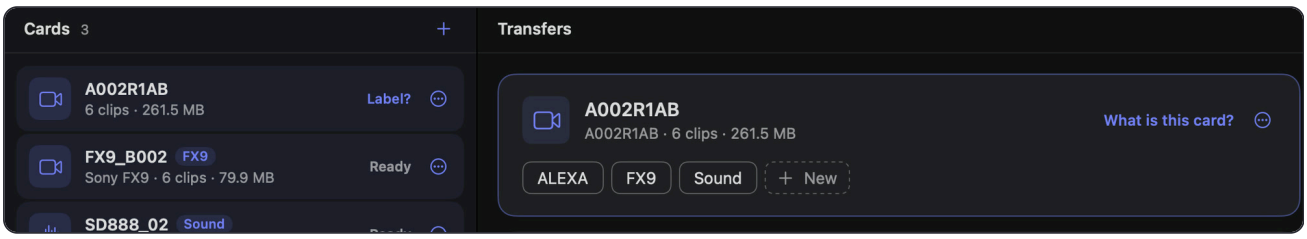


Figure 6.2 An ALEXA card in ProRes: Sansfer asks what it is.

- Click one of the project's labels, or
- click **+ New**, type a label (for example `ALEXA`, `B-cam` or `Drone`) and press Return.

A new label is added to the project and offered for every card from then on. When the card has a camera Sansfer can identify, that camera is linked to the label, so its next cards are labelled automatically.

Two cards never share a folder

When a second card with the same label is backed up, it gets its own folder: the second ALEXA card of the day goes to `ALEXA_2`, the third to `ALEXA_3`. If a card folder already holds a different card, Sansfer moves on to the next free one. If it holds this very card, the copies are checked and skipped instead of duplicated.

Managing labels

A project's labels are listed in its settings (bottom bar, project menu, **Project Settings…**), under **Card labels**. There you can rename a label, change its order, see how many cameras it remembers, and remove it. Renaming a label changes the folder of future cards, not of cards already backed up. See Projects.

> WITHOUT A PROJECT
>
> In Quick copy (no project), cards need no label: each card lands in a folder with its own name. Labels are part of projects, a Sansfer Pro feature.

07

Previewing clips

PRO See a still of every clip before you copy, and skim through each one, without changing anything on the card.

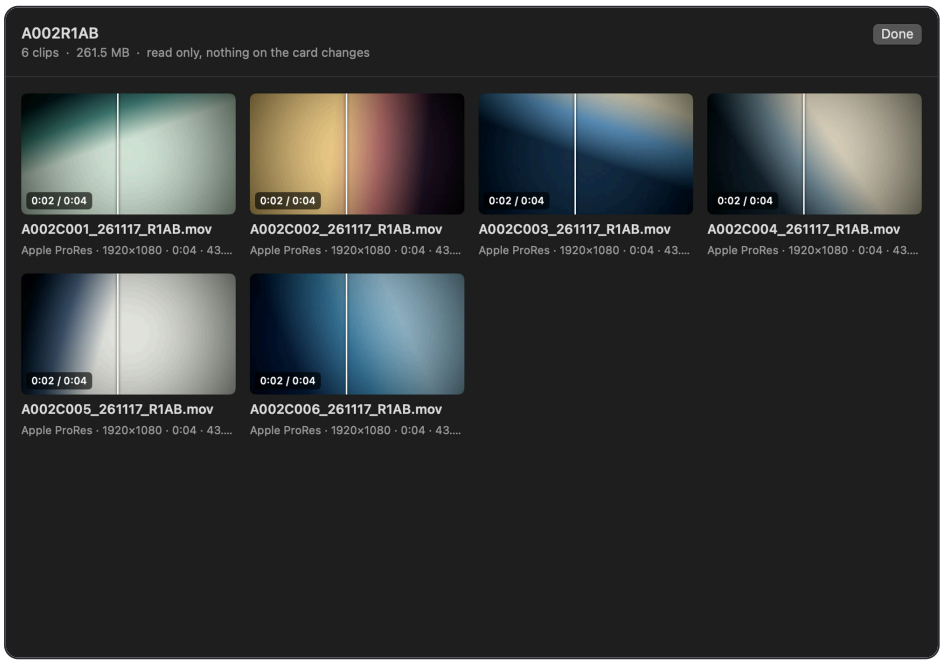


Figure 7.1 Clip preview of an ALEXA card. Move the pointer across a still to skim through the clip.

Opening the clip preview

Choose **Preview Clips…** in the card's ⋯ menu. A window opens with a still of every clip on the card, with its name, codec, resolution and duration.

Skimming

Move the pointer across a still to skim through the clip: the left edge is the start, the right edge the end, and a line follows the pointer with the time. Double-click a clip (or choose **Show Larger**) for a large still you can skim in the same way. No sound is played.

What can be previewed

Sansfer reads the first frame of MXF clips in H.264, H.265, Apple ProRes and MPEG-2 directly, and uses macOS for MOV and MP4. When a frame cannot be decoded (DNxHD, for example), Sansfer shows the thumbnail the camera wrote to the card, marked **Camera thumbnail**. RAW formats such as R3D, BRAW and ARRIRAW are copied and verified like any other file, but not previewed.

> READ ONLY
>
> Previewing only reads the card. Nothing on it changes, and files that are only in iCloud are not downloaded.

08
Drives

The right column holds the destinations: a folder on every drive a card is copied to. Sansfer remembers them, checks their space and tells you when two copies would share one disk.

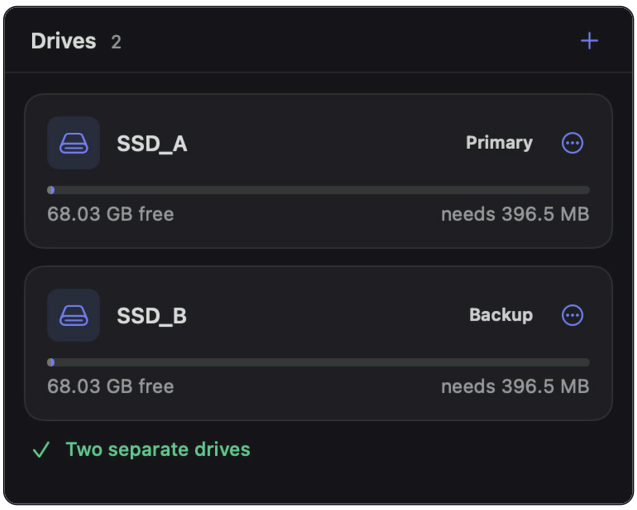


Figure 8.1 Two drives, each with its role, free space and what this transfer needs.

Adding a drive

Click **+** at the top of **Drives**:

- **Choose Folder…**: pick a folder on a drive, or the drive itself (⇧ ⌘ D).
- **Favorites**: folders you marked as favorite.
- **Recent**: folders you used before.

You can also drag a folder from the Finder onto the column. Every card lands inside the folder you choose, in its own subfolder.

Roles

Every drive has a role. The first drive you add is **Primary**, the next ones **Backup**. Click the role on a drive to change it:

Primary	The main working copy. In cascading mode it is filled and verified first, and the other copies are made from it.
Backup	A second (or third) copy, ideally on another physical drive.
Archive	A long-term copy, for example a RAID, NAS or LTO staging folder.
Custom…	Your own name, for example `Client drive` or `LTO staging`.

The role appears in the PDF report and the manifests, so it is clear later which copy was which.

Space

Each drive shows how much space is free, and as soon as cards are selected, how much the transfer **needs**. Before anything is written Sansfer checks the space for every card in the transfer together. When two destinations are on the same drive, their needs add up. If a drive has too little space, the drive says **Not enough space**, the card cannot start and the button tells you why. **Little space left after this card** is a warning only.

Separate drives

Two copies on one physical disk protect against nothing: if that disk fails, both are gone. Sansfer looks at the disk behind every folder, not only at its name: two folders on one drive, or two APFS volumes on one drive, count as one disk.

- **Two separate drives** under the list means your copies are on different physical drives.
- **Same drive as another destination** on a drive warns that two copies share a disk.
- **Same disk as the card** warns that a copy would be on the card's own disk.

- **Network drive: slower to verify** appears for a NAS or server. Network drives work, but reading every copy back takes longer.

The drive menu

Click the ··· button on a drive, or right-click it:

Change Folder…	Choose another folder, on this or another drive.
Show in Finder	Opens the folder in the Finder.
Add to Favorites	Keeps the folder in the + menu under **Favorites**, marked with a star.
Move Up / **Move Down**	Changes the order. In sequential mode the drives are written in this order.
Remove	Stops copying to this drive. Nothing on the drive is changed. Not available during a transfer.

While a transfer runs

During a transfer every drive shows two thin bars: blue for the data written, green for the files verified, with the write speed and the number of files done. In cascading mode the backup drives show **Waiting for the primary copy** until the primary is complete.

How many drives

Sansfer copies to up to two drives at once; Sansfer Pro to as many as you like. Most productions use two or three: a fast working copy, a backup, and sometimes a client or archive drive.

> DEFAULT DRIVES PER PROJECT
>
> PRO A project can remember its own drives. When you switch to that project, its drives are selected. See Projects.

09

Transfer options

How cards are copied and checked: the checksum, ASC MHL, the order in which drives are written, what happens to files that already exist, and presets. All in one menu in the bottom bar.

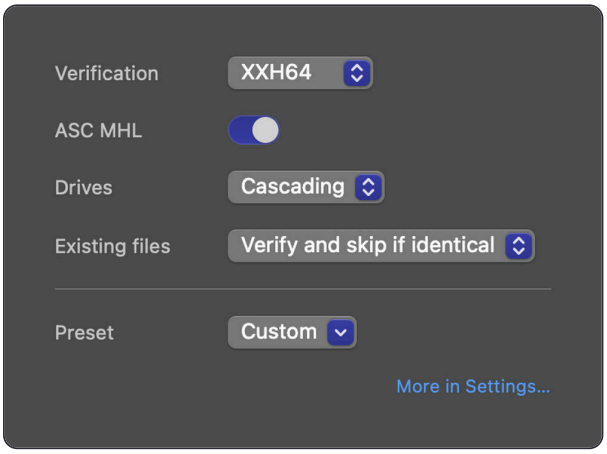


Figure 9.1 The transfer options, opened from the bottom bar.

Click the options on the right of the bottom bar, which show the current choice in a few words, such as **XXH64 · Cascading · ASC MHL**. The menu has five rows:

Verification
The checksum: SHA-256 or XXH64.

ASC MHL PRO
Writes an ASC MHL history into every card folder.

Drives
The copy order: Parallel, Cascading or Sequential.

Existing files
What happens when a file already exists.

Preset
Applies a preset, or opens **Manage Presets…**.

More in Settings… opens Settings for the rest.

Verification: the checksum

A checksum is a fingerprint of a file's contents: change one bit and the checksum changes. Sansfer calculates it once from the card, and once more from every copy it reads back.

CHECKSUM	CHARACTER	USE IT WHEN
SHA-256	Maximum integrity	You want a cryptographic fingerprint, or a client or insurer asks for it. Detects any change. The default.
XXH64	Standard	Speed matters on set. About five times faster to calculate and reliably detects accidental corruption. Needed for ASC MHL.

Both are verified the same way: every copy is read back from the drive and compared. The choice only changes the fingerprint.

ASC MHL PRO

ASC MHL is the industry-standard media hash list (ASC MHL v1.0). Post houses and DIT tools use it to check a card's files and to see every copy that was made of them. When it is on, every card folder gets an `ascmhl` folder with a history; every later transfer into the same folder adds a generation. A history that was already on the card is kept and extended.

ASC MHL needs XXH64. With SHA-256 the switch shows **Needs XXH64** and no history is written; the check before the transfer tells you so.

Drives: the copy order

MODE	WHAT HAPPENS	USE IT WHEN
Parallel	The card is read once and written to every drive at the same time.	Your drives are about equally fast. The default.
Cascading PRO	The Primary drive is filled and verified first. The other copies are then made from the verified primary and checked against the card's original checksums.	You have one fast drive and slower backups, and want the card free sooner.
Sequential	One drive at a time, in the order of the list.	Network storage, or drives that should not be written at the same time.

In cascading mode the card is free as soon as the primary copy is verified: the backups are made from the primary, so the card can already go back into the camera's bag. Do not format it yet: wait until all destinations are verified.

Existing files

Sansfer never overwrites a file. When a file already exists where a copy should go, this option decides:

Verify and skip if identical	The default. The existing file is checked by checksum. If it is identical it is counted as verified and skipped; if it differs, it is reported and left untouched.
Rename the incoming file	The new copy gets a number, for example `clip (1).mov`.
Stop and ask	The transfer stops so you can decide.

In practice this rarely comes up: Sansfer gives every card its own folder, so files only meet when you back up the same card again.

Presets

A preset sets the folder structure, naming, copy order, checksum, file rules and reports in one go. Choose one from **Preset**; it shows **Custom** when your settings match no preset. See Presets.

10
Running a transfer

Press Back Up and Sansfer checks everything first, then copies, verifies and shows you exactly where every card and every drive stands.

Starting

There are three ways to start:

- The big button in the bottom bar backs up every card that is ready. It says how many: **Back Up 3 Cards** (⌘ ↩).
- The button in a card's panel backs up only that card, and names the drives: **Back Up to SSD_A and SSD_B**.
- **Transfer › Start Transfer** in the menu bar does the same as the big button.

When a card is backed up, it leaves the selection and its transfer appears in **Transfers**. Several cards are copied one after another, in the order you started them (you can run more at once in **Settings › Transfers**).

The checks before a transfer

Before a single byte is written, Sansfer checks the whole transfer. A card whose checks fail cannot start; the buttons are dimmed and point at them to see why. The checks:

- The card is connected and readable, and there is at least one drive.
- Every drive is connected, Sansfer may write to it and the folder can be created there.
- There is enough space on every drive, for every card in the transfer together.
- The card is not copied into itself, and no drive is inside the card.
- The drive can store the files: FAT32 cannot hold files over 4 GB, for example.
- In a project, the card has a label.
- When files are renamed, every file gets a name of its own.

Warnings, such as two copies on one disk or ASC MHL with SHA-256, do not stop a transfer. They are shown on the card or the drive so you can decide.

Following a transfer

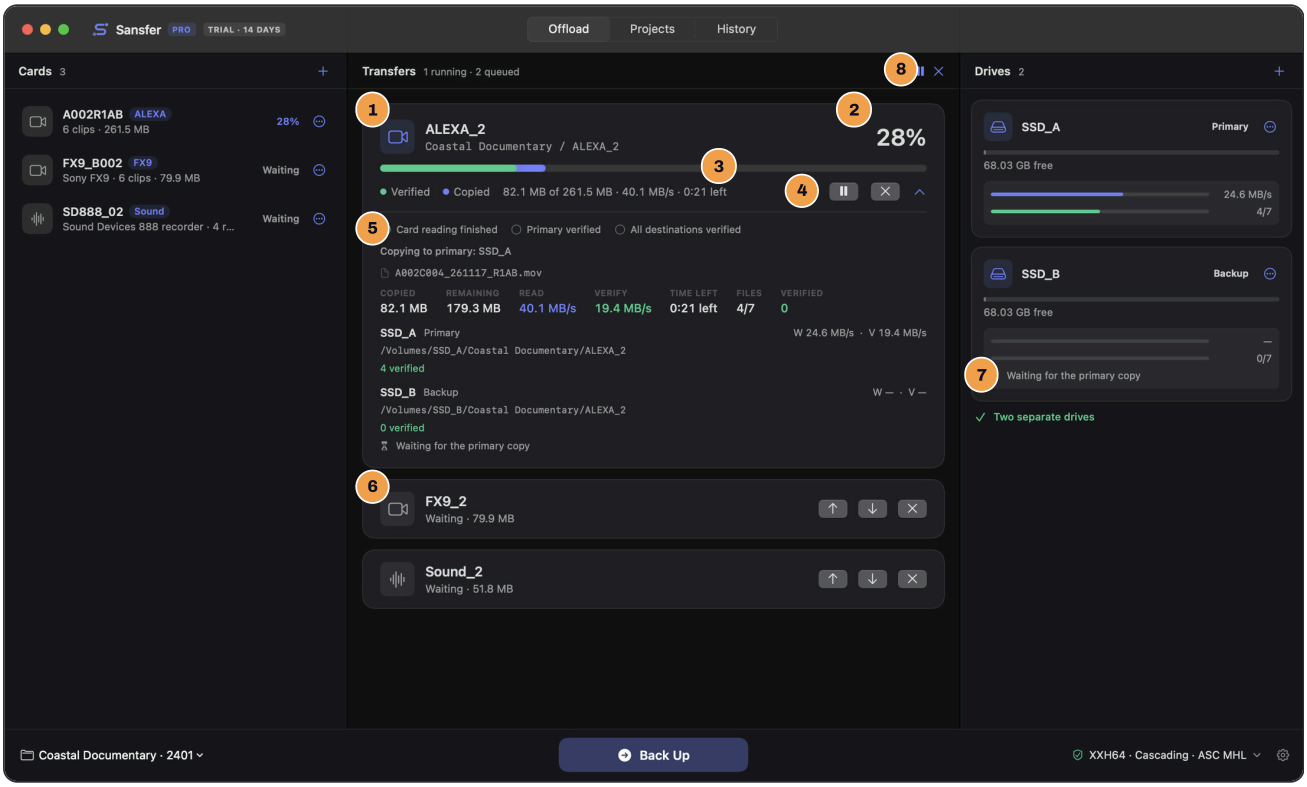


Figure 10.1 Cascading: the ALEXA card is copied to the primary drive while the backup waits for the verified primary. Two more cards wait in the queue.

1. **The transfer:** the card's label and the folder it goes to on every drive.
2. **Progress** over all drives together, copied and verified.
3. **The bar:** blue is copied, green is verified. Green always follows blue.
4. **Pause, cancel** and show or hide the details.
5. **The details:** the three moments, what Sansfer is doing now and the figures.
6. **The queue:** cards that wait their turn.
7. **Each drive** with its own copy and verify bars. The backup waits for the primary.
8. **Pause all** and **cancel all** transfers.

Under the bar Sansfer shows the data done, the speed and the time left, for example **108.9 MB of 261.5 MB · 30.6 MB/s · 0:12 left**. The percentage counts both copying and verifying, so it reaches 100% only when every copy is checked.

Details

Click the arrow on a transfer for its details:

- Three moments: **Card reading finished** (the card is no longer read), **Primary verified** (in cascading mode) and **All destinations verified**. Only the last one means the card may be cleared.
- What Sansfer is doing now, and the file it is on.
- The figures: copied, remaining, read and verify speed, time left, files done and files verified.

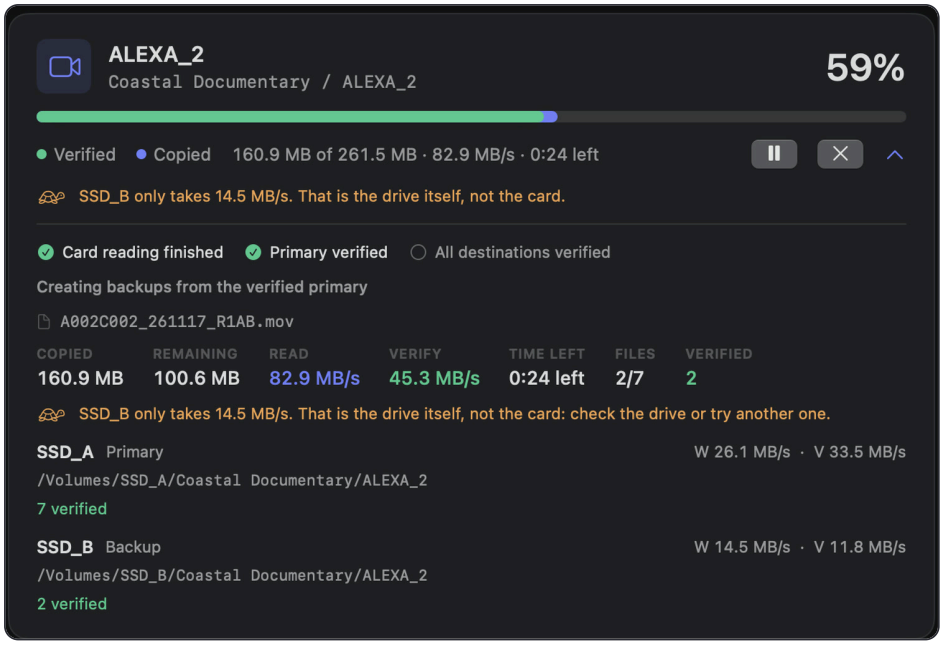


Figure 10.2 Later in the same transfer: the primary is verified and the backup is made from it. SSD_B turns out to be the slow drive.

Pausing and cancelling

Pause a transfer with its pause button, and continue with the same button. **Transfer › Pause All** and **Resume All** do the same for every transfer. A paused transfer keeps its place; nothing is lost.

Cancel with the × button, or all transfers with **Transfer › Cancel All…**. Sansfer asks first. When you cancel, files that were verified stay at their destinations, unfinished files are removed, and the card is not changed. The record of the transfer says **Cancelled**.

The queue

Cards that wait their turn are listed under the running transfer with their size. Use the arrows to move a card earlier or later in the queue, and × to take it out of the queue. You can add cards while a transfer runs: insert them, check their labels and press **Back Up** again. They join the end of the queue.

A slow drive

A transfer goes as fast as its slowest drive. When one drive holds the others back, Sansfer says so on the transfer, for example **SSD_B only takes 38 MB/s. That is the drive itself, not the card.** Check the drive, its cable or its port, or use cascading mode so the card is free sooner.

When files fail

If a file cannot be copied or does not match the card, it is not put in place, and the transfer continues with the other files: **2 file(s) failed so far. The rest continue.** At the end the transfer is **Incomplete** and lists the files that were not verified everywhere, with the reason. Choose **Retry Failed Files** to copy just those again. If it keeps failing, the drive, cable or card reader may be failing; see Troubleshooting.

Quitting during a transfer

If you quit Sansfer while transfers run, it asks first. Quitting cancels them: verified files stay at their destinations, unfinished files are removed, and source media is never modified. If Sansfer, the Mac or a drive stops unexpectedly instead, the transfer can be resumed (see Interrupted transfers).

11

When a transfer is done

Safe to erase means every file on every drive was read back and matches the card. This chapter covers what you see then, and what Sansfer wrote to the drives.

Safe to erase

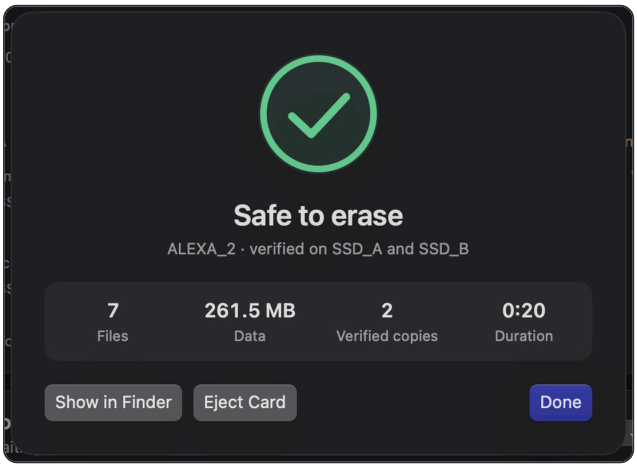


Figure 11.1 Every file verified on both drives.

When the last file of a card is verified on the last drive, Sansfer shows **Safe to erase** with the card, the drives it was verified on, the number of files, the data, the verified copies and how long it took. A chime plays (you can switch it off in **Settings › General**).

- **Show in Finder** opens the card's folder on the first drive.
- **Open Report** opens the PDF report, when one was saved.
- **Eject Card** ejects the card so you can take it out.
- **Done** closes the message.

> ALL COPIES ON ONE DRIVE
>
> If every copy is on the same physical disk, the message says so: **All copies are on one drive. Keep the card until a second, separate drive has a copy.**

The Done list

Finished transfers move to **Done** at the bottom of **Transfers**, with their result and the time they finished: **Safe to erase · 2 copies verified**, or **Incomplete** or **Cancelled**. Click a row for the full result:

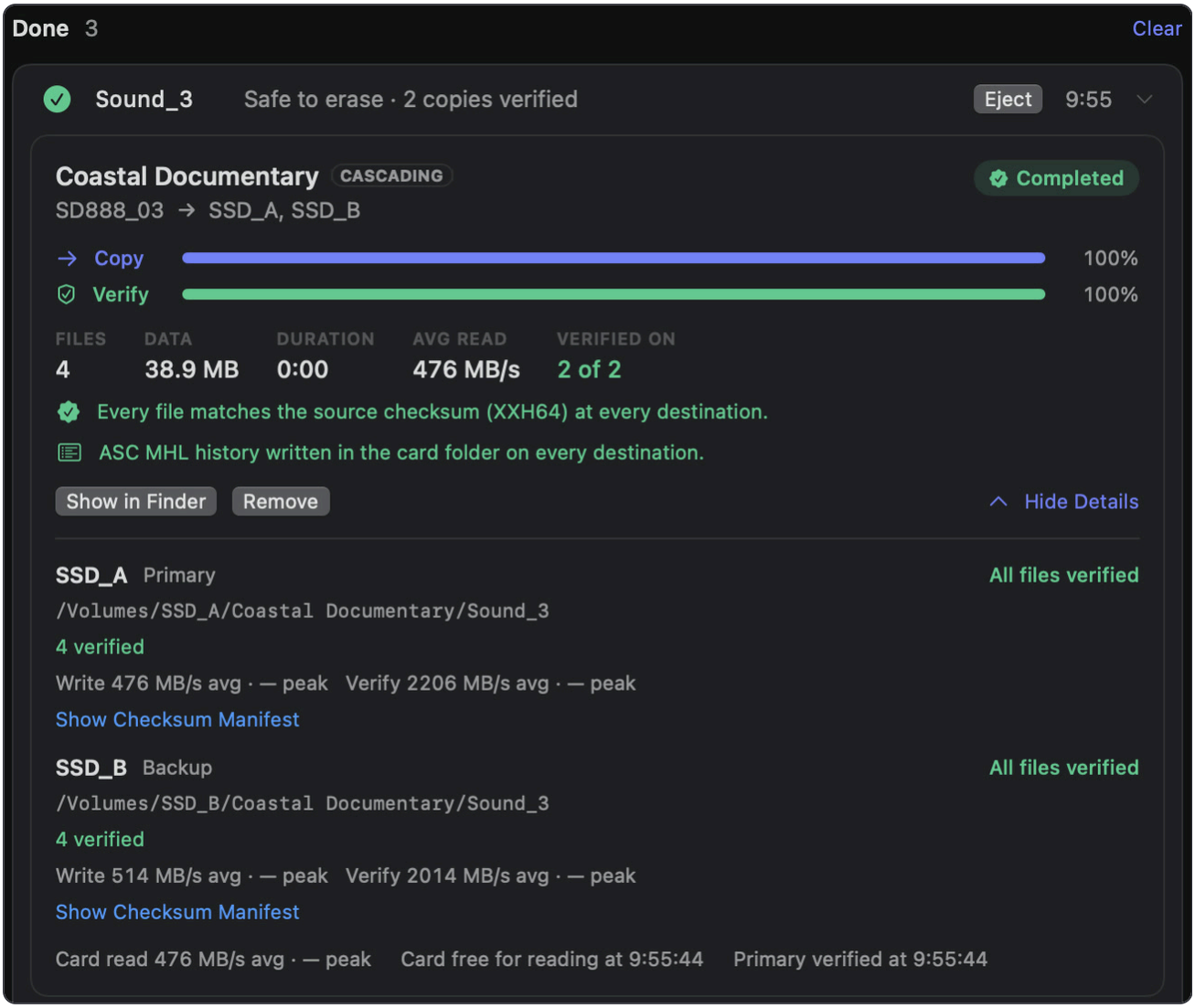


Figure 11.2 Three cards done, with the result of the sound card opened.

- Every drive with its folder, its result, the files verified, identical and skipped, or failed, and its write and verify speeds.
- When the card was free for reading and, in cascading mode, when the primary was verified.
- Whether an ASC MHL history was written.
- **Show in Finder** and **Show Checksum Manifest** for each drive.
- **Retry Failed Files** or **Try Again** when the transfer did not complete.

Clear empties the list. The transfers stay in History.

What is on the drives

Every card lands in its own folder, with the card's complete structure inside. Next to the footage Sansfer adds:

FOLDER OR FILE	WHAT IT IS
`_Sansfer/`	The checksum manifest of this transfer, as a `.json` file and as a plain list (`.sha256` or `.xxh64`) that other tools can check.
`ascmhl/`	The ASC MHL history, when ASC MHL is on PRO.
`Sansfer Report … VERIFIED.pdf`	A report, when reports are switched on in Settings or the preset. It can be saved in the card folder or in a `_Sansfer Reports` folder in the project folder.

For example, the second ALEXA card of Coastal Documentary on SSD_A:

```
SSD_A/
└── Coastal Documentary/
    └── ALEXA_2/
        ├── A002C001_261117_R1AB.mov
        ├── A002C002_261117_R1AB.mov
        ├── …
        ├── _Sansfer/
        │   ├── Sansfer_20261118-094012_7C1E33A0.json
        │   └── Sansfer_20261118-094012_7C1E33A0.xxh64
        └── ascmhl/
            └── 0001_ALEXA_2_2026-11-18_084012Z.mhl
```

How to check a manifest yourself, and what is in a report, is explained in Reports, manifests and ASC MHL.

Ejecting the card

Eject the card with **Eject Card**, with **Eject** in the card's menu, or in the Finder. Then, and only in the camera, you may format it.

12

Interrupted transfers

A pulled cable, a flat battery, a crash: Sansfer picks up where it stopped, and checks what was already done before it relies on it.

Resuming

Sansfer records every file the moment it is verified. If Sansfer quits unexpectedly, the Mac loses power or a drive disconnects, the transfer appears at the top of **Transfers** the next time you open Sansfer, with how far it got.

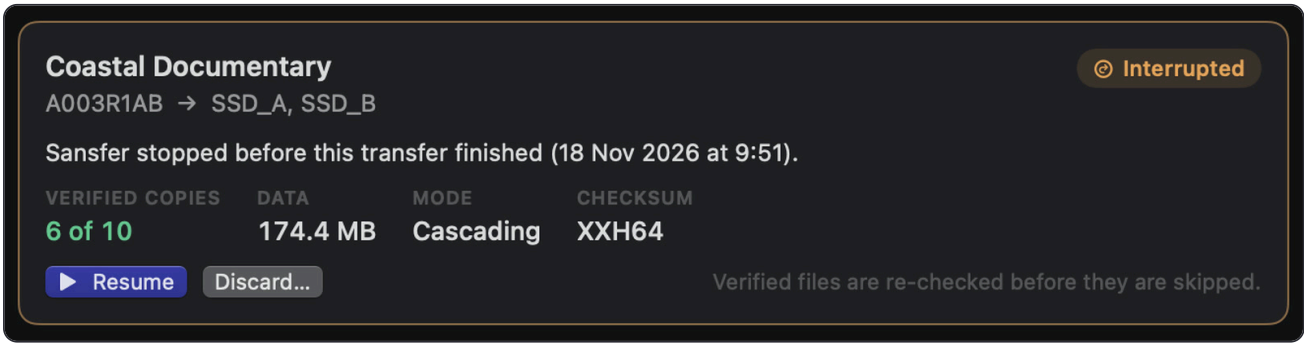


Figure 12.1 An interrupted transfer, ready to be resumed.

- **Resume** continues the transfer. Reconnect the card and the drives first.
- **Discard…** forgets how far the transfer got. Files already at the destinations are kept; nothing is deleted.

What Sansfer does when it resumes

1. **It finds the drives** by their volume ID, not by their name. A drive that comes back under another name is found; a different drive with the same name is refused.
2. **It checks the files that were already verified** before it skips them: by size and date, or, if you choose so in **Settings › Verification**, by reading them again completely.
3. **It copies only what is missing.** A file that was half written starts again from the beginning.

In cascading mode, backups can be finished from the verified primary even when the card is no longer connected. A transfer that ended with failed files can be resumed or retried in the same way.

> RE-VERIFYING EVERYTHING
> Checking earlier copies by size and date is fast. Re-reading them with their checksum takes longer, but also catches damage that did not change a file's size, for example after a drive was dropped. Choose it in **Settings › Verification › Recovery**.

PART 3

Organising

Projects that keep a production together, folder structures and card numbers, your own file names, presets that set it all in one click, and cards that back themselves up.

13
Projects

PRO A project keeps a production together: its details, drives, folder structure, card labels, cameras and file names, and every transfer made for it.

Quick copy or a project

On the left of the bottom bar is the project the cards belong to. Click it to switch:

- **Quick Copy (No Project)**: each card lands in a folder with its own name, inside the drive folder. No labels needed. Good for a one-off copy.
- A project from the list: cards land in the project's folder structure, get labels and card numbers, and are counted in the project.
- **Project Settings…** opens the settings of the current project.
- **New Project…** creates a project and opens its settings.

Sansfer remembers the last project you used, also after a restart.

Project settings

Everything a production needs on set is in one sheet, set once at the start of a job: open it with **Project Settings…** in the project menu.

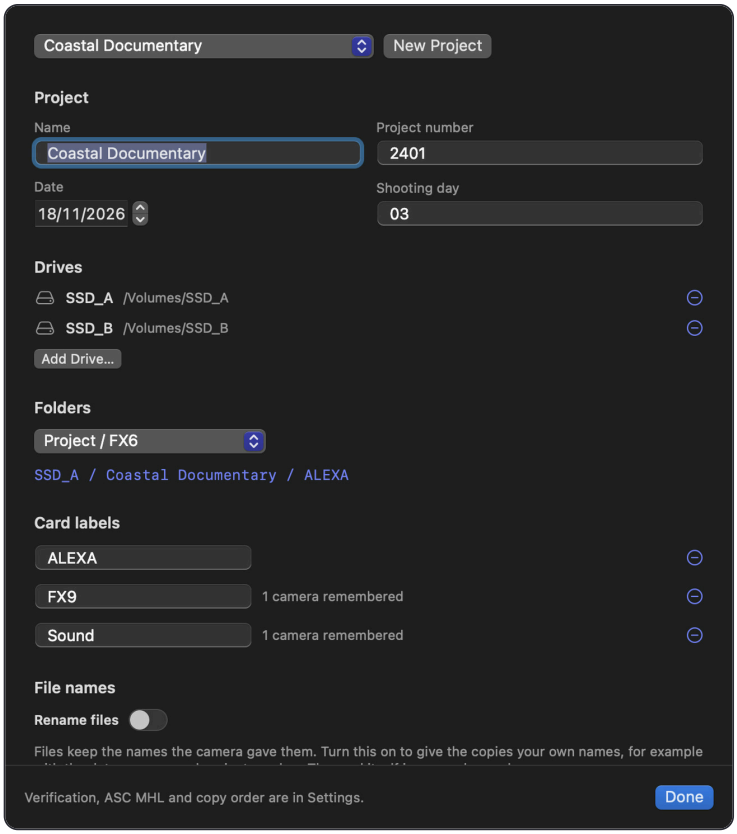


Figure 13.1 The settings of Coastal Documentary: project, drives, folders, card labels and file names.

Project

The project's name and number, the production date and the shooting day. The menu at the top switches to another project, and **New Project** starts one.

Drives

The drives this project copies to. **Add Drive…** adds one; the minus button stops copying to a drive.

Folders

The folder structure on every drive: **Project / FX6**, **Project / Day 1 / FX6**, **Project / 2026-11-17 / FX6**, or **Custom** with your own template. The line in blue shows where the next card will land, for example `SSD_A / Coastal Documentary / ALEXA`. See Folders and card numbers.

Card labels

The labels of this project, such as ALEXA, FX9 and Sound, with the number of cameras each one remembers. Rename a label, drag it to change the order, or remove it.

File names

Whether the copies keep the camera's names or get your own. See Renaming files.

Checksum, ASC MHL and copy order are not part of a project: they are in the transfer options and Settings, or in a preset.

The Projects section

Open **Projects** in the top bar (`⌘2`) for an overview of every production and its totals.

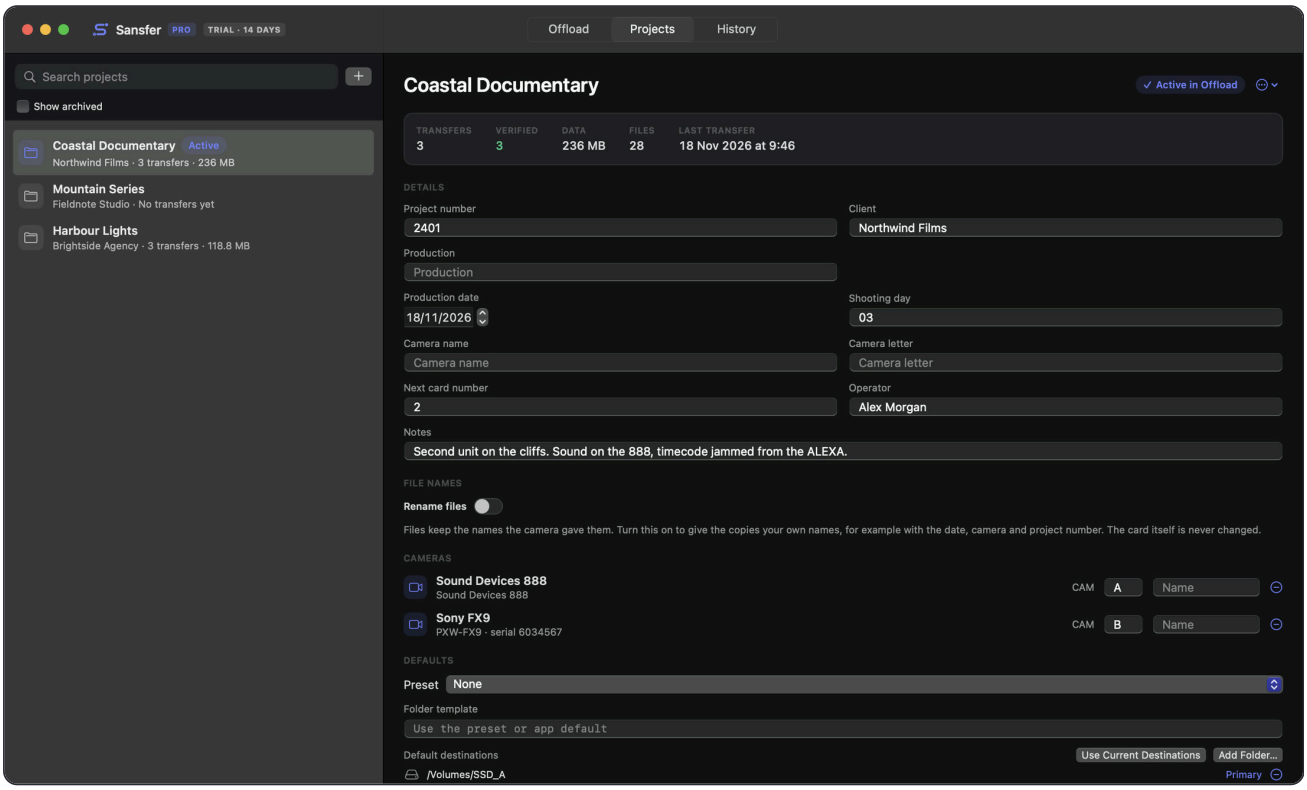


Figure 13.2 The Projects section: the list on the left, the selected project on the right.

The list

Every project with its client, number of transfers and total data. The project in use in Offload is marked **Active**. Search by name, client or number, and choose **Show archived** to include finished productions. Click **+** for a new project. Right-click a project for **Use for Offload**, **Duplicate** and **Archive**.

The project

At the top: the name, **Use for Offload** (or **Active in Offload**), and a menu with **Duplicate**, **Archive** and **Delete Project…**. Below it:

Totals	Transfers, verified transfers, data, files and the last transfer.
Details	Project number, client, production, production date, shooting day, camera name and letter, next card number, operator and notes. These fill the variables in folder templates, file names and reports.

File names	The project's renaming scheme.
Cameras	Every camera body seen in this project, recognised by model and serial number, with its camera letter (`A`, `B`…) and an optional name. A new camera gets the next free letter the first time one of its cards is backed up, and keeps it for the rest of the project.
Defaults	A preset that is applied when you switch to this project, its folder template, and its default destinations (**Use Current Destinations** or **Add Folder…**).
Transfers	Every transfer of this project, with date, card, size and result.

Archiving and deleting

Archive a project when the production is over: it leaves the project menu and the list, but keeps its history and totals. **Show archived** brings it back; **Unarchive** makes it active again.

Delete Project… removes the project from Sansfer. Media, manifests, reports and transfer history are not touched.

> `DUPLICATE FOR THE NEXT JOB`
>
> A series, a client you work for every week: duplicate a finished project to start the next one with the same drives, folder structure, labels and file names.

14

Folders and card numbers

Where every card lands is set by a folder template: fixed names and variables that Sansfer fills in for each card.

Folder templates

A folder template is a path inside the drive folder, with variables in braces. For each card Sansfer fills in the variables and creates the folders. In a project the template is chosen under **Folders** in the project settings; for Quick copy it is in **Settings › Organization**. Presets can set their own.

TEMPLATE	BECOMES, FOR A SONY FX9 CARD
`{project}/{label}`	`Coastal Documentary/FX9`
`{project}/Day {shootingDay}/{label}`	`Coastal Documentary/Day 03/FX9`
`{project}/{date}/{label}`	`Coastal Documentary/2026-11-18/FX9`
`{client}/{project}/{date}/{sourceName}`	`Northwind Films/Coastal Documentary/2026-11-18/FX9_B002`
`{project}/Day_{shootingDay}/CAM_{cameraLetter}/CARD_{cardNumber}`	`Coastal Documentary/Day_03/CAM_A/CARD_05`

In these examples the project is Coastal Documentary for the client Northwind Films, the shooting day is 03, the FX9 is camera A and this is the fifth card of the project. A second FX9 card of the same day gets `FX9_2`.

A part of the path whose variables are all empty is left out, so a template keeps working when a detail was not filled in.

Variables

VARIABLE	BECOMES
`{label}`	What the card is, such as ALEXA, FX9 or Sound
`{project}`	The project name
`{projectNumber}`	The project number, such as 2401
`{client}`	The client
`{production}`	The production name
`{date}`	The production date, in the date format you chose
`{year}`, `{month}`, `{day}`	Parts of the production date, such as 2026, 11 and 18
`{shootingDay}`	The shooting day, such as 03
`{camera}`	The camera name
`{cameraLetter}`	The camera letter, such as A
`{cameraModel}`	The camera model read from the card, such as FX9
`{cardNumber}`	The card number, with leading zeros
`{sourceName}`	The card's or folder's own name, such as A002R1AB
`{operator}`	The operator name

Date format

Choose how `{date}` is written in **Settings › Organization** or in a preset: `2026-11-18`, `20261118`, `18-11-2026` or `261118`.

Card numbers

Every card in a project gets a number for `{cardNumber}`. It goes up by one with every card (you can switch that off), and is written with a fixed number of digits: `2`, `02` or `002`, set under **Card number digits**. The project's **Next card number** shows and sets the next one.

Two cards never share a folder

If a card folder already holds a different card, the card moves on to the next free folder or number. If it holds this very card (the same files, sizes, dates and contents), the copies are checked and skipped instead of duplicated. So backing up a card twice is harmless, and two cards never end up mixed in one folder.

15
Renaming files

Give the copies your own names, with the date, camera, project number or a counter. The card is never changed: only the copies get new names, and the original names are kept in every report.

Turning renaming on

Files keep the names the camera gave them unless you switch on **Rename files**. In a project you find it under **File names** in the project settings; for Quick copy in **Settings › Organization**. Presets can set a scheme too.

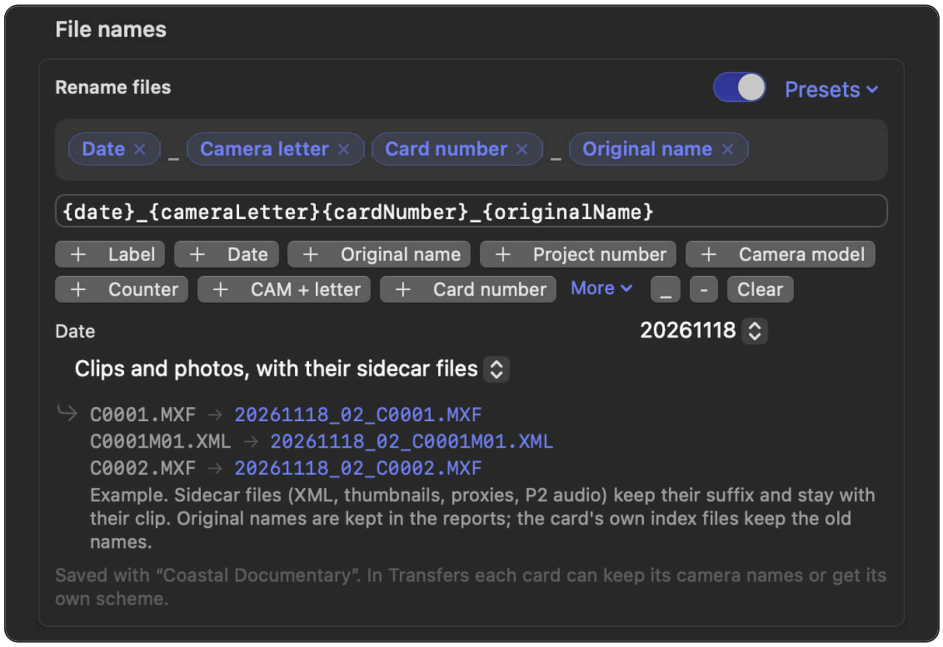


Figure 15.1 A scheme of date, camera letter, card number and original name, with what the first files of the card become.

Building a scheme

A scheme is a row of blocks with your own text between them. Under the scheme:

- **Presets** fills in a ready-made scheme (see the table below).
- The **+** buttons add a block: **Label**, **Date**, **Original name**, **Project number**, **Camera model**, **Counter**, **CAM + letter** or **Card number**. **More** lists every other variable.
- The underscore and hyphen buttons add a separator; **Clear** starts again.
- Click a block's **×** to remove it.

The scheme is also shown as text, for example `{date}_{cameraLetter}{cardNumber}_{originalName}`. You can type in it directly: put fixed text such as `CAM` or `PROJECT` between the blocks. The lines below show what the first files of the selected card become, for example `C0001.MXF` becomes `20261118_02_C0001.MXF`. That card has no camera letter, so that part is simply left out. The file extension is always kept.

Ready-made schemes

PRESET	SCHEME
Label · date · original	`{label}_{date}_{originalName}`

PRESET	SCHEME
Project number · date · original	`{projectNumber}_{date}_{originalName}`
Date · label · original	`{date}_{label}_{originalName}`
Project number · label · date · original	`{projectNumber}_{label}_{date}_{originalName}`
Date · camera · project · original	`{date}_CAM{cameraLetter}_PROJECT{projectNumber}_{originalName}`
Card · counter · original	`{sourceName}_{counter}_{originalName}`
Camera · card · counter	`{cameraLetter}{cardNumber}_C{counter}`
Project · date · counter	`{project}_{date}_{counter}`
Client · date · original	`{client}_{fileDate}_{originalName}`

Variables for file names

Every folder variable (see Folders and card numbers) works in file names too, plus four of their own:

VARIABLE	BECOMES
`{originalName}`	The file's own name, without its extension
`{counter}`	The clip's number on this card, with leading zeros
`{fileDate}`	The date the clip was recorded
`{fileTime}`	The time the clip was recorded, such as 143012

Next to the scheme you set how dates are written, the number the counter starts at on each card (**Counter from**) and how many digits it has.

Which files are renamed

Sansfer renames per clip, not per file. Files that belong to a clip keep their suffix and stay with it, so software can still match them: Sony's `M01.XML` metadata, thumbnails (`T01.JPG`) and proxies (`S03.MXF`), P2 audio channels, proxies and icons with the same name, and RAW + JPEG pairs. Under **Rename**, choose **Clips and photos, with their sidecar files** (the default) or **Every file**.

Some files always keep their names: ASC MHL histories, and card index files such as Sony's `MEDIAPRO.XML` .

Every file gets a name of its own

Two files may never get the same name. A scheme without **Original name** or **Counter** would give every clip the same name; the editor warns about this right away, and the transfer will not start until every file gets a name of its own.

> CAMERA FOLDERS
> When files inside a camera folder structure are renamed, the card's index files still list the old names. Some software may then not read the copy as a camera card. Sansfer warns about this before you start.

Per card

When renaming is on, each card's panel has a **Rename files** checkbox. Switch it off for a card that should keep its camera names, for example sound files that the editor matches by name.

> NOTHING IS LOST
> The card itself is never changed. The original name of every file is kept in the PDF and CSV report and in the JSON manifest.

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Presets

A preset bundles how cards are organised and checked: folder structure, naming, copy order, checksum, file rules, reports, notifications and automation. Apply one and everything is set.

Built-in presets

PRESET	WHAT IT DOES	MODE · CHECKSUM
Standard two-drive backup	Primary and backup written at the same time. Folder `{project}/{date}/{sourceName}`.	Parallel · SHA-256
Documentary production	Organised by shooting day, camera and card. PDF and CSV report in the project folder.	Parallel · SHA-256
Wedding production	Client and date first, one folder per camera card. PDF report.	Parallel · XXH64
Multi-camera production	Day, camera letter and card number, so several cameras never collide. PDF and CSV report.	Parallel · XXH64
Photography import	Still images and their sidecars only; videos and thumbnails are left on the card.	Parallel · XXH64
NAS archive	One destination at a time, safest for network storage. PDF and JSON report.	Sequential · SHA-256
Fast primary SSD with cascading backup	The fastest drive is filled first so the card is free sooner; backups follow from it. PDF report.	Cascading · XXH64

Sansfer includes **Wedding production** and **Photography import**; Sansfer Pro has all seven, plus your own.

Applying a preset

Open the transfer options in the bottom bar and choose a preset under **Preset**. Its settings take effect for the next transfer. When you change something afterwards, the preset shows **Custom**. A project can apply a preset by itself when you switch to it (**Defaults** in the Projects section).

Managing presets PRO

Choose **Manage Presets…** under **Preset** in the transfer options.

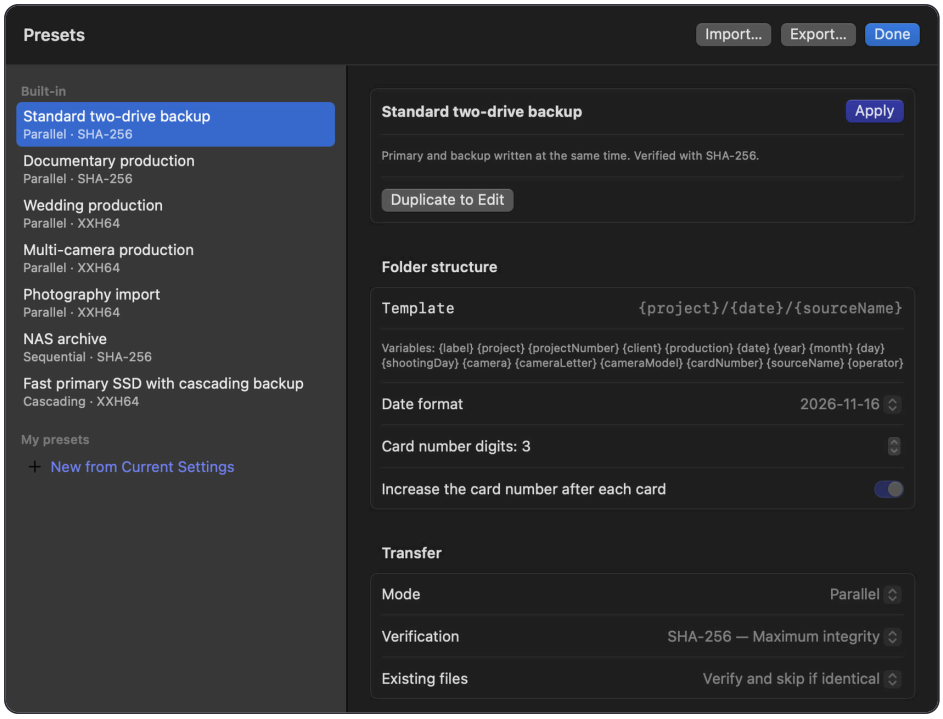


Figure 16.1 Managing presets: the built-in presets and your own on the left, the selected one on the right.

- **New from Current Settings** saves what you use now as a preset.
- A built-in preset cannot be changed: **Duplicate to Edit** makes your own copy.
- **Apply** uses the selected preset now.
- **Export…** saves the selected preset as a `.sansferpreset` file; **Import…** reads one. Share them with your team so everyone works the same way.
- **Delete Preset…** removes one of your own presets.

What a preset holds

Name, description	How it appears in the list.
Folder structure	The folder template, date format, card number digits and whether the card number goes up after each card.
Transfer	Copy order, checksum and what happens to existing files.
Destinations	Drives to use, or none to keep the drives you have. **Use Current Destinations** fills them in.
Files	Only these extensions, or never these extensions. Empty means everything.
Reports	PDF, CSV or JSON, in the card folder or the project folder, and notifications when all drives are verified or a transfer fails.
Automatic transfer	Use this preset by itself for matching cards (see the next chapter).

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Automatic card workflows

PRO Let a preset take over when a card is inserted: Sansfer prepares the transfer, and when you allow it, starts it by itself.

Switching it on

Automatic workflows are off by default and need two things:

1. In **Settings** › **General**, switch on **Let presets prepare or start transfers when a matching card is inserted**.
2. In a preset, switch on **Use this preset automatically for matching cards** and say which cards match:
   - **Volume name contains**: for example `FX9`, or leave it empty.
   - **Camera**: a brand, or **Any recognised camera card**.
   - **Start without asking**: start as soon as the card is ready, or only prepare it and wait for you.

What happens when a card is inserted

When a matching card is inserted, Sansfer reads it, applies the preset and shows a notice in **Transfers** with the card and the preset. Without **Start without asking**, you check the card and press **Back Up**. With it, the transfer starts by itself, but only when every check passes. **Dismiss** hides the notice.

> SAFE BY DESIGN
>
> - A card that was already offloaded and verified is never copied again.
> - A transfer only starts when every check passes: space, permissions, names and labels.
> - Sansfer only reads cards. It never erases, formats or modifies source media, automatically or otherwise.

A good use: a sound recorder's cards that always go to the same drives, or a DIT cart where every card from the A-camera should start the moment it is inserted.

PART 4

Records

Every transfer is recorded with its checksums and results. Find any of them in History, export a report for a client or an insurer, and check the copies yourself, now or years from now.

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History

PRO Every transfer made on this Mac, with the checksum and result of every file. Search it, reopen any transfer and export its report.

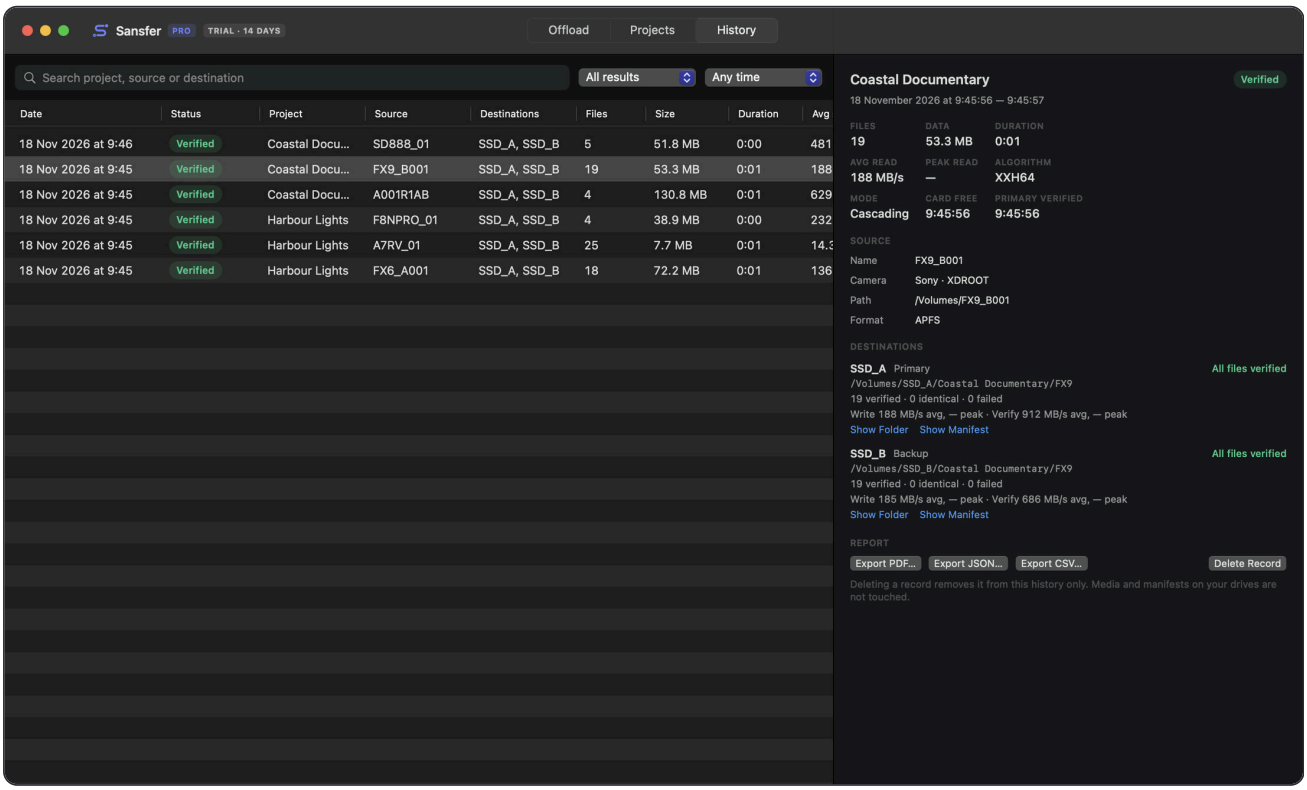


Figure 18.1 History: the transfers on the left, the details of the selected FX9 card on the right.

Finding a transfer

Open **History** in the top bar (⌘3). Every transfer is listed with its date, result, project, card, destinations, number of files, size, duration and average speed. Click a column header to sort.

- Type in the search field to find a project, card or drive.
- Filter on the result: **Verified**, **Failed** or **Cancelled**.
- Filter on the date: **Today**, **Last 7 days** or **Last 30 days**.

The details of a transfer

Select a transfer to see everything about it on the right:

Summary	Project, start and end time, and the reason if it did not complete.
Figures	Files, data, duration, average and peak read speed, checksum, copy order, when the card was free for reading and when the primary was verified.
Source	The card's name, format, path and volume ID.
Destinations	Every drive with its role, result, folder, files verified, identical and skipped or failed, and its write and verify speeds. **Show Folder** and **Show Manifest** open them in the Finder.
Files not verified everywhere	For an incomplete transfer: every file that failed, with the drive and the reason.

Warnings	Anything Sansfer warned about during the transfer.
Report	Export the report, and the report files that were saved automatically.

Exporting a report

Under **Report**, choose **Export PDF…**, **Export CSV…** or **Export JSON…** and pick where to save it. Reports can be exported for any transfer, at any time, also when no report was saved automatically. What each one holds is in the next chapter.

Deleting a record

Delete Record removes a transfer from this history only. Media, manifests and reports on your drives are not touched.

> WHERE HISTORY IS KEPT
>
> History, projects and presets are stored on this Mac, in `~/Library/Application Support/Sansfer`. They survive updates. **Settings › Advanced › Data** shows the history database in the Finder.

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Reports, manifests and ASC MHL

Proof that travels with the footage: a report for people, manifests and ASC MHL for software, all written next to the media on every drive.

Reports

A report states the result plainly, **VERIFIED**, **INCOMPLETE** or **CANCELLED**, and lists every file. There are three kinds:

FORMAT	WHAT IT HOLDS	FOR
PDF	The project and production details, the transfer (start, end, duration, copy order, checksum, files, data, speeds, ASC MHL), the card with its format and volume ID, every destination with its result, warnings, and every file with its size, checksum and result.	Clients, producers, insurers, the camera report.
CSV	One line per file and destination: path, original name, size, modification date, checksum, status and any error.	Spreadsheets and your own checks.
JSON	The complete record of the transfer.	Scripts, databases and asset management.

Saving reports automatically

In **Settings › Reports**, choose which reports are saved when a transfer ends, and where:

- **Card folder (_Sansfer)**: next to the footage, in the card's `_Sansfer` folder on every drive.
- **Project folder (_Sansfer Reports)**: all reports of a project together, in a `_Sansfer Reports` folder in the project folder on every drive.

Reports are named after the card, the time and the result, for example `Sansfer Report FX9_2 20261118-094012 VERIFIED.pdf`, and never overwrite an existing file. Presets can set their own report options.

Checksum manifests

With **Write a checksum manifest into each destination folder** on (the default, in **Settings › Verification**), every card folder gets a `_Sansfer` folder with the checksums of this transfer, in two forms:

- `Sansfer_<time>_<id>.json`: the full manifest.
- `Sansfer_<time>_<id>.sha256` or `.xxh64`: one line per file, checksum and path, in the standard format other tools read.

Checking a copy yourself

Anyone can check a copy against its manifest, without Sansfer, with the standard tools in Terminal. Go to the card folder and run, for a SHA-256 transfer:

```
cd "/Volumes/SSD_A/Coastal Documentary/FX9_2"
shasum -a 256 -c _Sansfer/*.sha256
```

Every file should report `OK`. For an XXH64 transfer, use a tool that reads XXH64 lists, such as `xxhsum -c` (from the xxHash package), or check the ASC MHL history.

ASC MHL PRO

With ASC MHL on and XXH64 as the checksum, every card folder gets an `ascmhl` folder: the industry-standard media hash list, version 1.0. It records every file's checksum and who made the copy, when and with what. Each transfer into the same folder adds a generation, such as `0001_FX9_2_2026-11-18_084012Z.mhl`. A history that was already on the card is kept and extended, so the chain from camera

to archive stays complete.

Post houses and DIT tools that support ASC MHL can check the folder directly, for example with the open-source `ascmhl` tool:

```
ascmhl verify "/Volumes/SSD_A/Coastal Documentary/FX9_2"
```

The operator name in **Settings › Reports** is written into the history as the person who made the copy.

PART 5

Reference

Every setting, licenses and updates, what to do when something goes wrong, keyboard shortcuts and menus, and the words used in this guide.

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Settings

Open Settings with the gear in the bottom bar or with ⌘ , . Seven tabs hold everything that is not part of a single transfer. The defaults are safe; most people change only a few.

General

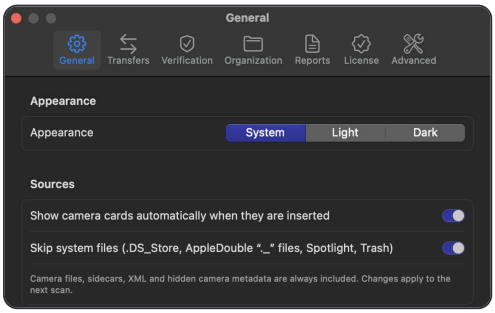


Figure 20.1 Settings, General.

Appearance	**System**, **Light** or **Dark**.
Show camera cards automatically when they are inserted	Adds an inserted camera card to Cards by itself. On by default.
Skip system files	Leaves out `.DS_Store`, AppleDouble `._` files, Spotlight and Trash folders. Camera files, sidecars, XML and hidden camera metadata are always included. On by default.
Automatic card workflows PRO	Lets presets prepare or start transfers when a matching card is inserted. Off by default. See Automatic card workflows.
Updates	**Check for updates automatically**, and **Check Now**. See Licenses, trial and updates.
Notifications	When a camera card is detected; when a transfer starts and when all destinations are verified; when a transfer fails or a drive is disconnected; and a sound when a card is safe to erase (**Play** lets you hear it).

Transfers

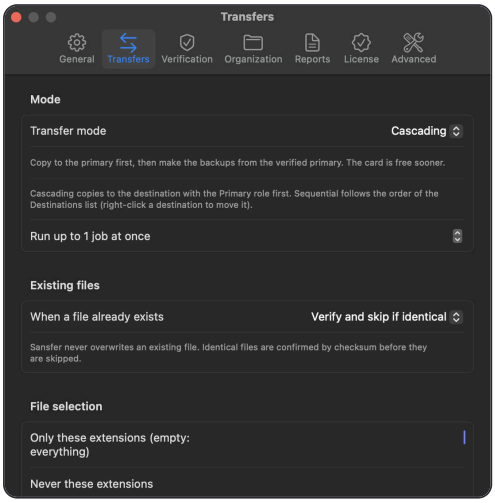


Figure 20.2 Settings, Transfers.

Transfer mode	Parallel, Cascading PRO or Sequential. Cascading copies to the Primary drive first; Sequential follows the order of the Drives list.
Run up to … jobs at once	How many cards are copied at the same time, from 1 (the default) to 4. More at once only helps when the cards and drives are on separate connections.
When a file already exists	**Verify and skip if identical**, **Rename the incoming file** or **Stop and ask**. Sansfer never overwrites an existing file.
File selection	**Only these extensions** and **Never these extensions**, separated by commas, such as `arw, jpg, xmp`. Empty means the complete card. Applies from the next scan.
Buffers	The buffer size and the number of buffers in flight. Memory stays bounded whatever the file size: slow drives slow the reading down instead of filling memory. Leave these at their defaults unless support asks you to change them.

Verification

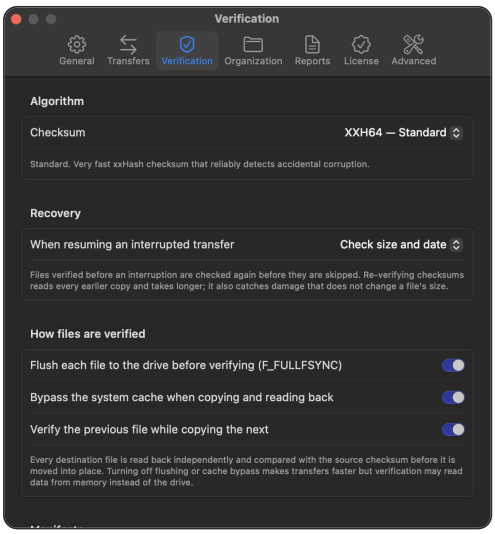


Figure 20.3 Settings, Verification.

Checksum	**SHA-256 — Maximum integrity** or **XXH64 — Standard**.
When resuming an interrupted transfer	**Check size and date** (fast) or **Re-verify checksums** (reads every earlier copy again, and also catches damage that does not change a file's size).
Flush each file to the drive before verifying	Makes the drive commit each file to permanent storage, its own cache included, before it is read back. On by default.
Bypass the system cache	Copies and reads back without the Mac's cache, so verification reads from the drive and not from memory. On by default.
Verify the previous file while copying the next	Overlaps verifying and copying for speed. On by default.
Write a checksum manifest	The `_Sansfer` folder with JSON and checksum lists in every card folder. On by default.
Write an ASC MHL history PRO	The `ascmhl` folder in every card folder. Requires XXH64.

SPEED VERSUS CERTAINTY

Turning off flushing or cache bypass makes transfers faster, but verification may then read data from memory instead of the drive. Keep both on unless you know why you are changing them.

Organization

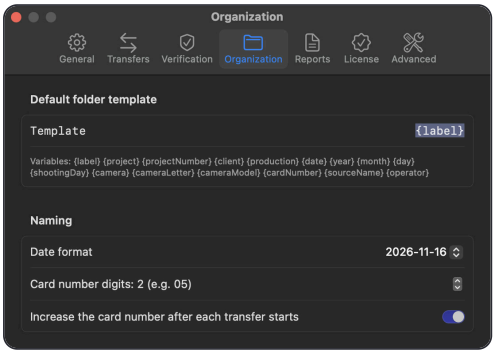


Figure 20.4 Settings, Organization.

Default folder template	The folder structure for Quick copy, with all variables listed below the field. Projects and presets can have their own.
Date format	How `{date}` is written: `2026-11-16`, `20261116`, `16-11-2026` or `261116`.
Card number digits	1 to 5, with leading zeros.
Increase the card number after each transfer starts	Counts card numbers up by themselves.
File names	The renaming scheme for Quick copy. See Renaming files.

Reports

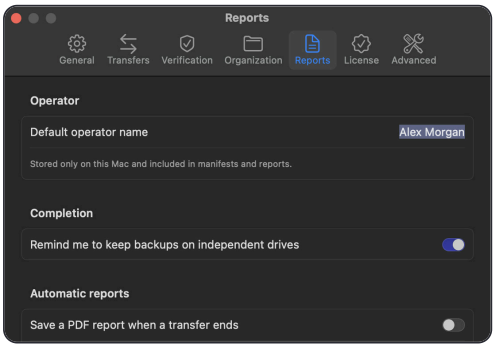


Figure 20.5 Settings, Reports.

Default operator name	Your name, written into manifests, reports and ASC MHL histories. Stored only on this Mac.
Remind me to keep backups on independent drives	The note on **Safe to erase** when all copies are on one disk.
Save a PDF / CSV / JSON report when a transfer ends	Saves those reports on every drive. Reports never overwrite an existing file.
Save reports in	**Card folder (_Sansfer)** or **Project folder (_Sansfer Reports)**.

License

The same as **Sansfer › License…**: your license, edition and seats, or a field to enter your key. See the next chapter.

Advanced

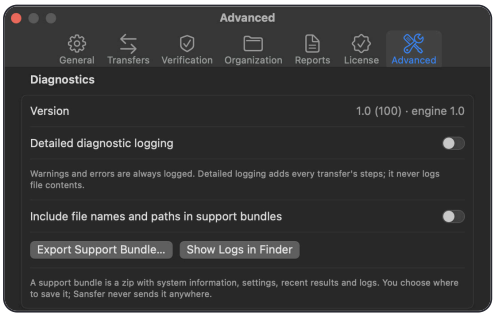


Figure 20.6 Settings, Advanced: diagnostics.

History database	**Show in Finder** shows where history, file names and project details are stored on this Mac.
Detailed diagnostic logging	Adds every step of every transfer to the log. Warnings and errors are always logged; file contents never are.
Include file names and paths in support bundles	Off by default: names and paths are replaced by placeholders in a support bundle.
Export Support Bundle…	The same as **Help › Export Support Bundle…**. See Troubleshooting.
Show Logs in Finder	Opens the log folder.
Performance	Your Mac, its memory, the buffer memory per transfer and the speeds of recent transfers.
Reset All Preferences…	Resets settings, favorites and recent destinations. Transfer history and media are not affected.

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Licenses, trial and updates

Try Sansfer for 14 days with every feature, then activate a license. Your license works offline, never stops a transfer, and every future update is free.

The trial

For 14 days, counted from the first time you open Sansfer, every feature of Sansfer Pro is available. The top bar shows how many days are left. When the trial ends, Sansfer says so in **Transfers**:

- Transfers that are running or interrupted still finish.
- Your history and reports stay available.
- To start new transfers, enter a license key, or buy one with **Buy Sansfer…**.

Buying and activating a license

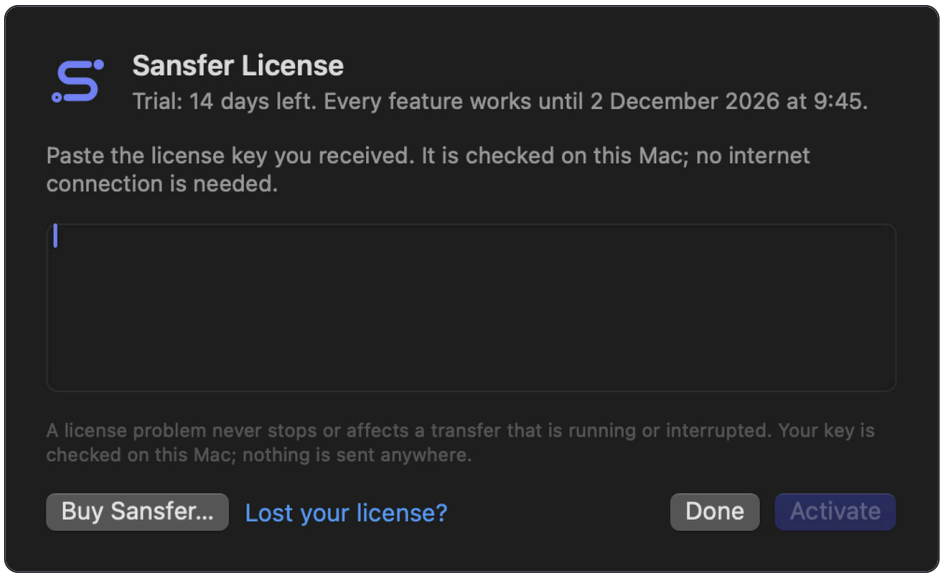


Figure 21.1 The license window during the trial.

1. Buy Sansfer or Sansfer Pro on **sansfer.com**, for one or more people. You receive your license key by email right away.
2. Open **Sansfer › License…** (or **Settings › License**).
3. Paste the license key into the field and click **Activate**.

The key is checked on this Mac; no internet connection is needed and nothing is sent anywhere. The license window then shows who it is licensed to, the email address, the edition and the number of seats. **Remove License…** takes it off this Mac, for example before you move to a new one.

- A license never expires.
- One license is for one person, on the Macs that person uses. A license for a team has a seat for every person.
- A license problem never stops or affects a transfer that is running or interrupted.
- Lost your key? Click **Lost your license?** and it is sent to the email address you bought it with.

Upgrading to Sansfer Pro

With a Sansfer license, the license window offers **Upgrade to Pro…**. You pay only the difference and receive a new key for Sansfer Pro, which replaces the old one. Everything you made stays as it is.

Updates

Every update is free. Sansfer checks for updates once a day when **Check for updates automatically** is on in **Settings › General**, and you can check yourself with **Sansfer › Check for Updates…**.

- The check asks sansfer.com whether there is a new version; the request contains the app's version and nothing else.
- When there is one, Sansfer shows what is new and installs it only when you agree.
- Every update is signed and checked before it is installed.
- An update never interrupts a transfer: Sansfer waits until every transfer has finished before it restarts.

Your settings, projects, presets, history and license stay as they are after an update.

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Troubleshooting

What Sansfer's messages mean and what to do about them, and how to get help.

Messages

MESSAGE	WHAT TO DO
Not enough space on …	Free space on the drive, or choose another drive. Destinations on the same drive add up.
Larger than FAT32 can store	FAT32 cannot hold files over 4 GB. Use a drive formatted as exFAT, APFS or Mac OS Extended.
Sansfer does not have permission to write to …	Check the drive's permissions in the Finder (Get Info), or choose another folder. A read-only drive cannot be a destination.
The source is inside the destination folder	A drive folder is inside the card or the other way round. Choose a destination outside the card.
A file is in the way of the destination folder	A file has the name of the folder Sansfer wants to create. Rename or move that file.
The file name pattern gives … files the same name	Add **Original name** or **Counter** to the renaming scheme.
ASC MHL needs XXH64 checksums	Choose XXH64 under Verification, or switch ASC MHL off. The transfer itself is not affected.
The source file changed during the transfer	Something wrote to the card while it was read. Make sure the camera or another app is not using it, choose **Read Again** and back it up again.
Checksum or size mismatch	The copy did not match the card and was not put in place. Use **Retry Failed Files**. If it happens again, the drive, cable or card reader may be failing: try another one.
The destination was disconnected / is full	Reconnect the drive or free space, then use **Resume** or **Retry Failed Files**. Verified files are kept.
Same drive as another destination	Two copies are on one physical disk. Choose a folder on another drive for real protection.
… only takes … MB/s	That drive is the bottleneck, not the card. Check its cable and port, or use cascading mode.
Label?	In a project, choose what the card is in its panel.

A card does not appear

- macOS asks once whether Sansfer may read removable volumes. If you did not allow it, go to **System Settings › Privacy & Security › Files and Folders** and switch on **Removable Volumes** for Sansfer.
- Check that **Show camera cards automatically when they are inserted** is on in **Settings › General**. Cards without a camera structure are not added by themselves: add them with **+**.
- Check that the card shows in the Finder. If it does not, try another card reader or port.

Support bundle and logs

If something goes wrong that this guide does not cover, choose **Help › Export Support Bundle…**. It creates a zip with system information, settings, recent results and logs. File names and paths are replaced by placeholders, unless you switched that off in **Settings › Advanced**. You choose where to save it and whether to share it; Sansfer never sends it anywhere. Send it to **hq@sansfer.com** with a short description of what happened.

Help › Show Diagnostic Logs in Finder opens the logs themselves. For more detail, switch on **Detailed diagnostic logging** in **Settings › Advanced** before you reproduce the problem.

Privacy

Everything Sansfer stores stays on your Mac: history, projects, presets, logs and your license, in `~/Library/Application Support/Sansfer`. Sansfer has no account and no analytics, and does not send your data anywhere. The only connection it makes is the update check, which sends the app's version and nothing else.

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Keyboard shortcuts and menus

The menu bar and its shortcuts.

Shortcuts

SHORTCUT	DOES
⌘ ↩	Back up every card that is ready (Start Transfer)
⌘ O	Add a source folder
⇧ ⌘ D	Add a destination
⌘ 1, ⌘ 2, ⌘ 3	Offload, Projects, History
⌘ ,	Settings
⌘ ?	Sansfer Help
↩	The default button in a window, such as Done or Continue

Menus

MENU	ITEMS
Sansfer	About Sansfer, License..., Check for Updates..., Settings...
File	Add Source Folder..., Add Destination...
Transfer	Start Transfer, Pause All, Resume All, Cancel All..., Clear Finished Transfers
View	Offload, Projects, History
Help	Sansfer Help, Welcome to Sansfer..., Export Support Bundle..., Show Diagnostic Logs in Finder

Sansfer Help opens a short guide inside the app, available offline.

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Glossary

The words used in Sansfer and in this guide.

ASC MHL
The media hash list standard of the American Society of Cinematographers: a history of checksums and copies kept next to the media.

Card
Anything Sansfer backs up: a camera card, a recorder's card, a drive or a folder.

Card folder
The folder on a drive that holds one card's complete structure.

Card label
What a card is, such as ALEXA, FX9 or Sound. It names the card folder in a project.

Card number
A number per card in a project, for `{cardNumber}`.

Cascading
A copy order: the primary drive first, then the other drives from the verified primary.

Checksum
A fingerprint of a file's contents. Sansfer uses SHA-256 or XXH64.

Destination
A folder on a drive that cards are copied to. Shown under Drives.

DIT
Digital imaging technician: the person on set responsible for the camera data.

Flush
Making a drive write its cache to permanent storage.

Manifest
The list of every file and its checksum, saved in `_Sansfer`.

Offload
Copying a card to your drives. Also the section in Sansfer where you do it.

Parallel
A copy order: every drive written at the same time.

Preflight
The checks before a transfer starts: space, permissions, paths and names.

Preset
A saved set of options for organising and checking transfers.

Primary
The main drive. In cascading mode it is written and verified first.

Project
A production in Sansfer, with its details, drives, labels, cameras, file names and transfers.

Quick copy
Backing up without a project.

Read back
Reading a copy from the drive again to check it.

Safe to erase
Every file of a card is verified on every drive.

Sequential
A copy order: one drive at a time, in the order of the list.

Sidecar file
A file that belongs to a clip, such as its XML metadata, thumbnail or proxy.

Staging file
The hidden temporary file a copy is written to until it is verified.

Transfer
One card copied and verified to every drive.

Verified
Read back from the drive and found identical to the card.



Every file. Every destination. Verified.

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