



CodexScan

Book Collection Manager for iPhone & iPad

User Documentation

Complete User Guide & Reference

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Getting Started

When you first launch the app, your **Default Library** is created automatically. The main screen shows the scanner console, a stats card, recent scan history, and the Cover Wall — a mosaic of your book covers.

Main screen controls:

- **Camera button** — Start scanning
- **Library icon** (toolbar) — Open your full library
- **Gear icon** (toolbar) — Open Settings
- **NFC icons** (toolbar) — Scan or write an NFC tag

Scanning Books

Barcode Scan Mode

Point the camera at an ISBN barcode (the black-and-white stripes on the back cover). The app recognizes EAN-13, EAN-8, and Code-128 formats.

Once a barcode is detected:

- Book metadata is fetched automatically from Open Library and Google Books

- A card appears showing the result — save it, discard it, or check it in/out

Debounce delay — After a successful scan, the scanner pauses briefly (default: 3 seconds) to prevent duplicate captures. Adjust this in Settings → Scanner.

Text (OCR) Scan Mode

Switch to text mode when a barcode is missing or damaged. Aim the camera at the ISBN number printed on the page. The app uses on-device Vision OCR to extract the digits.

- **Auto-capture** — Triggers automatically when a valid ISBN is detected
- **Tap-to-capture** — Tap the screen to freeze the frame and extract the ISBN (toggle in Settings)

NFC / RFID

Use the NFC toolbar buttons to read or write ISBN data to NFC NDEF tags placed inside book covers.

- **Scan RFID** — Hold the device near an NFC tag to read the encoded ISBN and look it up
- **Write RFID** — Enter or scan an ISBN, then hold the device near a writable NFC tag to encode it

NFC requires an iPhone 7 or later. The NFC session dialog appears automatically when triggered.

Manual Entry

Tap the pencil icon to add a book without a barcode. Title and author are required; all other fields are optional.

Scan Outcomes

Result	What Happens
New book	Metadata fetched; save card appears
Known ISBN	Prompts to add another copy or dismiss
Check-in/out mode	Toggles the scanned copy's circulation status
Invalid barcode	Flash banner shown; scan discarded

Active Shelf

Set an **active shelf** before scanning a batch of books from the same location. Every new scan will automatically assign that shelf label without requiring manual entry per book. Scan a shelf QR code to activate a shelf instantly.

Multiple Copies

CodexScan tracks each physical copy of a book independently.

Adding a Second Copy

Scan (or manually enter) an ISBN that already exists in your library. A dialog appears offering to:

- **Add another copy** — Creates a new copy with its own circulation record
- **Dismiss** — Ignores the scan

How Copies Work

- Each copy has a unique internal ID and a **copy number** (Copy 1, Copy 2, ...) shown as a badge on the book card
- Circulation (checked in/out, borrower name, due date) is tracked separately per copy
- **Star rating is shared** — Rating is a book-level value. When any copy is rated, the average of all rated copies is computed and written to every copy automatically, including on other synced devices

Viewing Copies

In the library list, each copy appears as its own row with its copy number badge. Tap a copy to open its individual detail view.

Your Library

Open the library from the toolbar to browse, search, and manage all your books.

Cover Wall

The home screen displays a **Cover Wall** — a scrollable mosaic of book covers (6 columns in portrait, 8 in landscape). Tap any cover to open the book's detail view.

Category Filter Bar

A row of filter pills at the top of the library quickly narrows the list:

Pill	Shows
All	Every book in the library
Out	Books currently checked out
Favorite	Starred/favourited books
Rating	Books with a star rating
Wish	Wishlist books

Views

- **List view** — Shows cover thumbnail (optional), title, author, status pill, and circulation badge
- **Icon/Grid view** — Cover-art grid; adjust column count (2–6) in Settings

Sorting

Sort by: Title, Author, Publish Year, or Date Added — ascending or descending.

Search

The search bar filters results in real time. Use the scope selector to search across:

- All fields
- Title only
- Author only
- ISBN
- Category
- Genre

Bulk Actions

Tap **Select** to enter multi-select mode. Select multiple books (by `copyID`, so each copy is selectable independently) to:

- Change reading status
- Change circulation status
- Set rating, location, or tags
- Delete books

Book Details

Tap any book to open its detail view. All fields are editable.

Fields

Field	Description
Title / Author	Required
Category / Genre	From Open Library or set manually
Tags	Comma-separated; useful for custom grouping
Location	Shelf, room, or any label
Summary	Synopsis or personal notes
Reading Status	Unread / Reading / Finished / Wishlist
Rating	1–5 stars (averaged across all copies)
Favorite	Star bookmark
Current Page	Track your reading progress

Field	Description
Publish Year	4-digit year
Page Count	Total pages
Copy	Copy number and total copies for this ISBN

Cover Image

Tap the cover to change it:

- **Camera** — Take a photo
- **Photo Library** — Choose from your photos
- **Auto-fetch** — Download from Open Library or Google Books using the ISBN

Page Scanner

Inside a book's detail view, tap the camera icon next to **Current Page** to scan a page number using OCR — point the camera at the printed page number.

Loan History

A collapsible panel shows the complete checkout and check-in history for that specific copy, including borrower names and loan duration.

Circulation (Lending)

Track books you loan to others. Circulation state is per copy, so you can have Copy 1 checked out and Copy 2 checked in simultaneously.

Checking Out a Book

Tap **Check Out** on any book (detail view or swipe action in the library). Optionally:

- Enter the borrower's name
- Set a due date (default: 2 weeks from today)

If a due date is set, two local notifications are scheduled: a reminder the day before, and an alert on the due date itself.

Checking In a Book

Tap **Check In** (or scan the book again in check-in/out mode). Optionally:

- Rate the book (1–5 stars; averaged with other copies)
- Log who read it

All check-in/out events are saved to that copy's loan history.

Check-In/Out Scan Mode

Switch the scanner to **Check-in/out mode** to toggle circulation status by scanning barcodes or NFC tags, without opening individual book records.

Default Borrower Name

Set a default borrower name in **Settings** → **Loan & Notifications** to pre-fill the checkout dialog.

Smart Collections

Smart Collections are saved filter presets shown as pill buttons above your library list. Tap a pill to instantly filter the library.

Creating a Collection

Tap the **+** pill in the library to open the collection editor. Combine any of:

- Reading status (Unread, Reading, Finished, Wishlist)
- Circulation status (Checked In, Checked Out)
- Category, Genre, Location
- Keyword search across any field

Give the collection a name and choose an icon (SF Symbols).

Managing Collections

Long-press a collection pill to edit or delete it. Drag to reorder.

Multiple Libraries

Create separate libraries for different contexts — Home, Office, Wishlist, a borrowed collection, etc.

Switching Libraries

The **Current Library** dropdown sits at the top of the stats card on the Home screen. Tap it to see all your libraries and select one. The book count, Cover Wall, and library view all update instantly.

Managing Libraries

Go to **Settings** → **Libraries** to:

- Create a new library
- Rename an existing library
- Delete a library (irreversible — removes the SQLite file)

Each library is a separate `.sqlite3` file. Only the active library is open at any time.

iCloud Sync

CodexScan offers two iCloud sync options, which can be used together or independently.

CloudKit Sync (Record-Level)

Available from the iCloud toolbar menu. Syncs individual book and loan records via CloudKit:

- Changes appear on other devices within seconds
- **Auto-sync** fires automatically 30 seconds after any local change
- Conflict resolution prefers the most recently updated record
- Works per-copy: checked-out state, rating averages, and loan history sync independently for each physical copy
- Tap **Sync Now** in the iCloud toolbar to force an immediate sync

iCloud Documents (File-Level)

Enable in **Settings** → **iCloud Sync**. Moves the SQLite library files into your iCloud Drive container so they are accessible and backed up via iCloud:

- All devices signed into the same Apple ID share the files
- Does not require the CloudKit sync to be active
- Disable at any time to revert to local-only storage

Note: Both sync options require an iCloud account. CloudKit sync and iCloud Documents sync operate independently and can be enabled together.

Widgets

Add CodexScan widgets to your Home Screen for a live snapshot of your library.

Widget Sizes

Small

- Books finished count
- Last scanned book title and author

Medium

- Total books, finished, and currently reading counts
- Top genre and top author

- Most active shelf location
- Last scanned book

Large

- All Medium info
- Genre breakdown bar chart (top 4 genres)
- Last updated timestamp

Widgets refresh automatically every hour and whenever you make changes in the app.

Exporting Data

PDF Export

- **Full catalog** — Multi-page PDF with cover images and metadata for every book (or the current filtered view)
- **Single book** — One-page detail sheet for a specific book

Access from the Library toolbar or a book's detail view.

CSV Export

Utilities → **Share CSV Catalog** exports all books in the active library as a `.csv` file.

The export always includes these 13 fields:

Column	Description
isbn	ISBN-10 or ISBN-13
title	Book title
author	Author name
category	Subject category
genre	Genre
coverURL	Open Library cover image URL
publishYear	4-digit year
pageCount	Total pages
tags	Comma-separated tags
summary	Synopsis or notes
location	Shelf or location label
status	Unread / Reading / Read / Wishlist

Column	Description
circulation	Checked in / Checked out

Include cover images — When enabled in Settings → Export, a 14th column (`coverImageData`) is added with each cover encoded as Base64.

Barcode Labels

Generate a printable sheet of ISBN barcodes from your library. Useful for physically labeling books.

Importing Data

Import CSV Catalog

Utilities → **Import CSV Catalog** adds books from a CSV file into the active library. Existing ISBNs are skipped. This is additive — it does not remove or overwrite existing books.

Format requirements: The CSV must contain at minimum the columns `isbn`, `title`, `author`, `category`, and `genre`. A CodexScan-exported CSV always meets this requirement.

Cover images: If the CSV includes a `coverImageData` column, covers are restored automatically.

Import CSV as New Library

Utilities → **Import CSV as New Library** creates a brand-new named library from a CSV file.

Flow:

1. Pick a CSV file — the app validates the format immediately
2. If the format is invalid, an error is shown and the process stops
3. If valid, a naming dialog appears pre-filled with the CSV filename (without extension)
4. Edit the name if desired, then tap **Import**
5. The new library is created, the app switches to it, and all books are imported
6. The new library appears immediately in the Current Library dropdown

Backup & Restore

Creating a Backup

Go to **Utilities** → **Create Backup** (or enable auto-backup in Settings). Creates a timestamped `.codexbackup` file — a direct copy of the active library's SQLite database, including all cover image BLOBs and loan history.

Share backups via Files, AirDrop, or email.

Restoring a Backup

Tap **Utilities** → **Restore Backup** and select a `.codexbackup` file. The app validates the file before replacing the active library.

Note: Restoring overwrites the current library completely. Create a backup first if you need to preserve the existing state.

Auto-Backup on Launch

Enable in **Settings** → **Export** to automatically create a backup each time the app starts.

Backup vs. CSV Export

	<code>.codexbackup</code>	CSV
Cover images	Always included (BLOB)	Optional (Base64)
Loan history	Yes	No
Ratings & favorites	Yes	No
Copy numbers	Yes	No
Human-readable	No	Yes
Cross-app compatible	No	Yes

Settings Reference

Appearance

Setting	Options
Color Scheme	System / Light / Dark
Accent Color	Olive / Teal / Indigo / Coral / Sky Blue
Card Background	Custom RGB color picker + text brightness

Scanner

Setting	Description
Default Scan Mode	Add Book / Check-in-out / Text OCR
Debounce Delay	0.5–5 seconds between accepted scans

Setting	Description
Haptic Feedback	Vibrate on successful scan
Beep Sound	Play a tone on successful scan
Auto-Dismiss Scan Card	Dismiss result card automatically
Dismiss Delay	Seconds before auto-dismiss
Text Scan: Tap to Capture	Tap to freeze frame instead of auto-capture

Library & Search

Setting	Description
Default Reading Status	Status assigned to newly scanned books
Default Search Field	Field used when the search bar is active
Remember Last Search	Persist the search query between sessions
Library View	List or icon grid
Icon Grid Columns	2–6 columns
List View: Show Covers	Show thumbnail covers in list view

Metadata

Setting	Description
Preferred Language	Language for Open Library metadata (32 options)
Auto-Fetch Cover	Automatically download cover art on scan

Loan & Notifications

Setting	Description
Default Borrower Name	Pre-fills the checkout dialog
Default Due Date	Days until due (default: 14)
Prompt for "Read By"	Ask who read it on check-in
Prompt for Rating	Ask for a star rating on check-in

Export

Setting	Description
CSV: Include Cover Images	Embed covers as Base64 in CSV export
Auto-Backup on Launch	Create a backup file each time the app opens

Scan History

Setting	Description
History Limit	Max scan events to keep (0 = unlimited)
Log Duplicates	Include duplicate ISBN scans in history

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