



Ripple User Manual

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1. Introduction

What is Ripple?

Ripple is a secure, offline personal data manager designed to help you organize, store, and protect sensitive information. Data is grouped into customizable categories such as banking, personal notes, passwords, purchases, or health records. Each record can include text fields and up to three images (e.g., ID cards, receipts, screenshots).

Key Features

-  **Local-Only Storage:** All data is saved directly on your device — no cloud, no accounts, no tracking.
 -  **Category-Based Organization:** Use category folders to group and filter records easily.
 -  **Image Support:** Attach up to three pictures per record, including compressed photos.
 -  **Export & Import:** Backup or move your data using encrypted ZIP files.
 -  **Security Focused:** Password-protected access with optional emergency password for last-resort data deletion.
-
- Supported Platforms
 - Android (phone or tablet)
 - Windows (PC version with compatible import/export folder structure)
 - How Ripple Stores Your Data
 - Ripple uses a local Hive database. Your information is saved in structured folders and encrypted (optionally) on export. The folder structure includes:
 - @Hive/ → internal database
 - @Export/ → encrypted backups
 - @Temp/ → temporary analysis
 - CIC Folders (e.g., AAAB/) → category folders containing:
 - Records (CSV)
 - Labels (for custom field names)
 - Pictures (JPG/PNG images)
 - Ripple never transmits your data or connects to the internet for any purpose.

2. Getting Started

Installing Ripple on Android

Download the Ripple APK from the official distribution link (e.g., GitHub, direct site, or trusted store).

If prompted, allow installs from unknown sources via Settings > Security > Install unknown apps.

- Tap the APK file to install Ripple.
- Once installed, open Ripple from your app drawer.
- 💡 Ripple does not require an internet connection. All data is stored locally on your device.

Installing Ripple on Windows

- Run the RippleInstaller.exe provided with the official release.
- Follow the installation wizard:
- Choose a destination folder (default: C:\Users\<YourName>\Documents\Ripple)
- Shortcut icons will be added to your Desktop and Start Menu.
- Launch Ripple from the installed shortcut.
- 💡 The Windows version is fully compatible with encrypted export files generated by the Android version.

First Launch & Permissions

Upon first launch:

- Ripple will request permission to access files and media (Android) or use the Documents folder (Windows).
- Grant permission to allow storage and retrieval of your encrypted data and images.

Ripple stores its folders in:

- Android: /storage/emulated/0/Ripple/
- Windows: C:\Users\<YourName>\Documents\Ripple\

Creating Your Master Password

- On your first login, you will be prompted to create a master password.
- This password is required every time you launch Ripple.
- Choose a strong but memorable password — Ripple does not allow recovery if forgotten.
- Once set, the password is stored securely (hashed) in the local Hive database.
- Passwords are case-sensitive. Double-check for spaces or caps lock.

Emergency Access Password

- Ripple supports an emergency password:
- This is a backup access method in case your master password is lost.
- If entered correctly, you will be offered the option to wipe all data and restart the app from scratch.
- To configure:
 - Go to Settings > Password Options
 - Set the Emergency Password and optional password clue

 **Entering the correct emergency password will permanently delete all data stored in Ripple.**

3. Main Screens and Navigation

Ripple is structured around a small set of intuitive screens. Each serves a distinct function and follows a simple navigation pattern. Navigation between screens is consistent whether you're on Android or Windows.

Login Screen

- Shown at app startup.
- Enter your master password to access your data.
- Tap the eye icon to reveal or hide input.
- Tap "Forgot Password?" to access the emergency password and clue.
- If the emergency password is correctly entered, Ripple will offer to erase all data and reset the app.

Category Selector (Category Screen)

- Shown after login.

- Displays all your categories (e.g., Banking, Medical, IDs).
- Tap a category to view its records.
- Use the + icon to add a new category.
- Use the : menu (three dots) on each category to edit or delete.
- Ripple assigns a unique Category Identifier Code (CIC) (e.g., AAAB) to every category. This is used for file and image organization behind the scenes.

Records List Screen (List Screen)

- Shows all records in the selected category.
- Use the search bar to filter by keyword.
- Tap a record to view details.
- Tap the + icon to add a new record.
- Tap the : menu on a record to edit or delete.
- Toggle Archived switch to include or exclude archived records.
- Sorting is available alphabetically (A→Z / Z→A) based on the record title.

Add/Edit Record Screen

- Input fields:
- Title
- User ID
- Password (with visibility toggle)
- Description
- Attach up to 3 images
- Toggle "Archived" to store records out of regular view
- Compression slider allows image size adjustment (useful for backups)
- Labels (field names) can be customized per category using the label editor.

Image Picker & Viewer

- Each record can contain up to 3 images.
- Tap an image slot to:
- Choose from gallery
- Take a new photo (Android)
- Select from file (Windows)
- Tap an image to open the full-screen viewer:
- Swipe between images
- Zoom in/out

- Tap to exit

Settings Screen

- Accessed via the gear icon on most screens.
- Provides options for:
- Switching categories
- Import/export data
- Changing password, clue, or emergency password
- Sending record sets via email (with attachments)
- Running maintenance tools (e.g., reindex folders, update Hive)
- Settings actions apply either to the current category or to all data depending on your selection.

4. Using Categories

Ripple organizes all records into folders called categories. Each category has a name (e.g., "Finance", "Passwords", "Family") and a unique code that ensures clean file and data management.

What is a CIC?

Each category is assigned a CIC (Category Identifier Code), such as AAAB or AAAF.

This code is:

- Automatically generated by Ripple.
- Used as the folder name on disk.
- Used in filenames for records and images.
- You do not need to manage CICs manually — Ripple does this in the background.

Creating a New Category

- Go to the Category Screen.
- Tap the + icon.
- Enter a category name (e.g., "Travel").
- Ripple will assign it a CIC and create its folders.
- A default set of field labels (Title, User ID, Password, Description) is applied.
- The category will now appear in your list, ready to store records.

Editing or Renaming Categories

- Tap the : icon next to a category.
- Select Edit.
- Update the category name and/or the field labels.
- You can customize labels like "Title" to "Bank", or "User ID" to "Account No."
- Tap Save.
- Ripple updates the display name and overwrites the label file for that category.

Deleting Individual Categories

- Tap the : icon next to the category.
- Select Delete.
- Ripple checks if any records remain:
- If records exist, deletion is blocked.
- If empty, a confirmation prompt appears.
- Confirm deletion to permanently remove the category and its folders.
- Deleted categories cannot be recovered unless previously exported.

Delete All (Safe Mode)

- Go to the Settings Screen.
- Under the Data Management dropdown, select Delete All Categories.
- Ripple shows a warning and prompts for backup.
- You may:
- Cancel
- Backup all categories first
- Proceed with full deletion
- This action:
- Deletes all categories except internal/system folders (@Export, @Hive)
- Is irreversible

5. Working with Records

Each record in Ripple is a secure data entry inside a category. Records can contain up to four text fields and three images, and they are stored with a unique Record ID based on the time and category.

Adding a Record

- Open a category from the Category Screen.
- Tap the  Add icon.
- Fill out the following fields:
 - Title (e.g., "Netflix Account")
 - User ID (e.g., email or login)
 - Password (with show/hide toggle)
 - Description (free text)
- Optionally:
 - Tap image slots to add up to three images
 - Adjust the image compression slider (10–100%)
 - Toggle Archived if you don't want it to appear in normal lists
- Tap Save to store the record.

Editing Records

- From the List Screen, tap the : icon next to a record.
- Select Edit.
- Update any fields or replace images.
- Tap Save to apply changes.
- Ripple preserves the original Record ID unless the record is duplicated.

Deleting Records

- Tap the : icon next to a record.
- Select Delete.
- Confirm deletion in the popup.
- This action:
 - Deletes the record from Hive.
 - Deletes all associated images from the folder.
 - Deleted records cannot be recovered unless exported.

Sorting & Filtering

- Use the controls at the top of the List Screen:
- Search box: filters by any part of the title, user ID, or description.

- Sort toggle: switches between A→Z and Z→A.
- Archived toggle: includes or excludes archived records from the list.
- Ripple dynamically updates the list as you type or switch filters.

Record IDs and Naming Convention

Each record is saved with a Record ID in this format:

- <CIC>-<EncodedTimestamp>
- Example:
- AAAE-BB24Y
- This ID is:
- Unique per record
- Encoded using a base-36 timestamp
- Used to name images and link them with the right record
- You'll rarely need to manage this ID manually, but it ensures all records and images are traceable and uniquely named.

6. Image Storage

Each record in Ripple can include up to three images. These are stored locally in the category's Pictures folder and named using the record's ID for reliable association.

Adding Images to Records

- When adding or editing a record, tap any image slot.
- Choose an image source:
- Camera (Android only)
- Gallery / File Browser (Android or Windows)
- Adjust the image quality slider (10% to 100%) before saving.
- Ripple compresses the image and stores it in the appropriate folder.

Supported Formats

- JPG (.jpg or .jpeg)
- PNG (.png)
- Other formats are not accepted. Images are automatically converted to .jpg if necessary during import or compression.

Image Naming Convention

Images follow a strict naming pattern:

- <CIC>-<RecordID>.jpg
- Example:
 - AAAB-BB12F.jpg
 - AAAB-BB12F_2.jpg
 - AAAB-BB12F_3.jpg
- The base filename is derived from the Record ID.
- Additional images for the same record include _2 and _3 suffixes.

This ensures all pictures stay linked to their corresponding record during backups, imports, or analysis.

Windows Location of Image Folders

On Windows, image folders are created in:

- C:\Users\<YourName>\Documents\Ripple\<CIC>\Pictures\
- Example:
 - C:\Users\Dave Brown\Documents\Ripple\AAAB\Pictures\

Each image is saved and read directly from this folder when viewing or editing a record.

 Do not rename or move images manually outside Ripple. Doing so may break record associations.

7. Backup and Restore

Ripple provides secure options to back up your data as encrypted ZIP files and restore them later. This ensures your records and images can be safely transferred or recovered if needed.

Exporting All Categories (Encrypted ZIP)

- Go to Settings > Data Management.
- Select Export All Categories.
- Choose a destination folder (e.g., Downloads or Ripple/@Export).
- Enter a password to encrypt the archive.
- Ripple creates a .zip.enc file containing:

- All category folders
- CSV record files
- Images
- Label files

The password is logged in @Hive/password_log.csv for future reference.

Note:- ".zip.enc" files are AES-encrypted and can't be opened outside Ripple

Exporting an Individual Category

In the Settings Screen, select a specific category from the dropdown.

- Tap Export Category from the Data Management options.
- Choose a destination and password.
- Ripple creates a ZIP file containing:
- The category's records
- Its label file
- Associated images

These files are smaller and ideal for selective sharing or backups.

Importing All Categories

Go to Settings > Data Management.

- Select Import All Categories.
- Choose a .zip or .zip.enc file.
- If encrypted, enter the correct password when prompted.
- Ripple will:
- Extract contents to a temporary folder
- Restore categories, records, and images
- Create folders and update Hive data

Existing categories with the same CIC will not be overwritten.

Importing a Single Category

Go to Settings > Data Management.

- Select Import Individual Category.
- Choose a ZIP file containing a single category.

- Ripple validates the structure and imports it if valid:
- One labels.csv
- One records.csv
- Optional images in Pictures/
- Category will be added under its original CIC.
-  Backup File Naming Conventions

Always test imports after major exports to ensure data integrity.

8. Settings & Security

Ripple's Settings screen provides secure control over your data, password management, and maintenance tools. All operations are local — no cloud syncing or internet access is involved.

Master Password Management

To change your master password:

- Open the Settings Screen.
- Tap Password Options.
- Select Set Password.
- Enter your current password, then the new one twice to confirm.
- The new password will be securely hashed and stored in the settingsBox. It is required at next login.

 Your data cannot be accessed without this password.

Emergency Access & Deletion

If you forget your password:

- On the Login Screen, tap "Forgot Password?".
- Enter the emergency password you set earlier.
- If valid, Ripple will prompt you:
- Confirm permanent deletion of all data
- Restart the app in a clean state
- Set or change the emergency password by:
- Going to Settings > Password Options > Set Emergency Password

You can also add an optional password clue for your future self.

Data Visibility Toggle

When editing or viewing a record:

- Tap the eye icon next to the User ID or Password field to show or hide the text.

This protects sensitive fields from being visible by default, especially on shared devices.

Data Stored Locally – No Cloud, No Tracking

Ripple is a standalone app. Your data is:

- Not uploaded or synced
- Not connected to any account or server
- Stored only on your device
- Everything lives in your local folders under:
- Android: /storage/emulated/0/Ripple/
- Windows: C:\Users\<YourName>\Documents\Ripple\

Only you have access to the records and images unless exported manually.

9. Ripple on Windows

Ripple runs as a standalone Windows app, offering full compatibility with Android exports. It mirrors the same category and record structure, allowing for seamless cross-platform use.

Installing the Windows Version

- Download the official RippleInstaller.exe.
- Run the installer and follow the setup prompts.
- By default, Ripple will be installed in:
- C:\Users\<YourName>\Documents\Ripple\
- A shortcut will appear on your Desktop and Start Menu.
- Ripple creates the following folders automatically:
- @Hive → for database files
- @Export → for exported encrypted files
- @Temp → for archive analysis

Accessing Data from Android Exports

- Copy your .zip or .zip.enc files from Android to your Windows PC.
- Open Ripple on Windows.
- Go to Settings > Data Management > Import All Categories.
- Choose the file and (if encrypted) enter the password.
- Ripple will import all categories, records, and images.

You can also import individual category ZIPs the same way.

File Paths and Record Access

Each category is stored in its own folder under:

- C:\Users\<YourName>\Documents\Ripple\<CIC>\
- Each folder contains:
 - Records.csv → your records
 - CIC_labels.csv → field labels
 - Pictures\ → image files
 - Example:
 - C:\Users\dale brown\Documents\Ripple\AAC\
 - C:\Users\dale brown\Documents\Ripple\AAC\Pictures\

Sync Limitations and Planned Improvements

Currently:

- There is no auto-sync between Android and Windows.
- You must manually export/import between devices using .zip files.
- Real-time sync or cloud storage is not supported by design for privacy reasons.
- Future versions may offer:
 - Export shortcuts
 - Cloud-free USB or SD card sync tools
 - Export scheduling for Windows-based backup automation

10. Known Issues & Troubleshooting

This section outlines common issues users may encounter and how to resolve them effectively. Most problems relate to file formatting, permissions, or missing data during import/export.

Import Errors

Symptoms:

- Records missing after import
- "Malformed row" warnings
- Labels not applied correctly
- Causes:
 - Manually edited .csv files with broken formatting
 - Extra commas, quotation marks, or blank lines
 - Incorrect number of fields in a row

Fix:

- Open the records.csv file in a clean editor (e.g. Notepad++, Excel)
 - Ensure each row has exactly 4 values: Title, User ID, Password, Description
 - Save as UTF-8 without extra quotation marks
-  Use a working export as a formatting reference.

Image Not Displaying

Symptoms:

- Blank image slot
- Tap to open shows "Image not found" or does nothing

Causes:

- Image file was deleted or renamed
- Image filename does not match expected RecordID.jpg format
- Import ZIP was missing the Pictures folder
- Fix:
 - Open the Pictures folder of the category
 - Check filenames match the correct format (e.g. AAAB-BB12F.jpg)
 - Re-link missing images or re-import from original device

Master Password Mismatch

Symptoms:

- “Incorrect password” at login
- Can’t access data despite knowing the password

Causes:

- Typo during initial password setup
- Password entered with incorrect capitalization or spacing
- Hive box corruption (rare)

Fix:

- Tap “Forgot Password?”
- Enter your emergency password
- Choose to wipe all data and restart if you cannot recover the original password

Always test new passwords immediately after setting.

Export Folder Permissions (Windows)

Symptoms:

- Export fails silently
- Exported files not saved or invisible

Causes:

- Windows folder is read-only
- Export folder is synced with OneDrive or restricted by antivirus

Fix:

- Change export path to a known writable folder like:
C:\Users\<YourName>\Documents\Ripple\@Export
- Avoid saving directly to C:\ or system folders
- Temporarily disable OneDrive or whitelist Ripple in antivirus settings

11. Tips and Best Practices

These tips help you get the most reliable, secure, and efficient use from Ripple — especially when managing a large number of records across devices.

Use Short File and Category Names

- Keep category names clear and concise (e.g. "Health", "Passwords", "IDs").
- Avoid special characters like / \ * ? : " < > | — they can interfere with file systems.
- Use short record titles to prevent file name overflows during export.

Export Regularly for Peace of Mind

Perform manual exports after major changes (e.g., new categories, important records).

- Use encrypted exports to ensure secure backups.
- Store exports in at least two places:
- One local (e.g., phone or PC)
- One external (e.g., USB drive or SD card)

 You can include the export password in the filename for easy reference — just avoid putting it in unencrypted form.

Store Your Master Password Securely

Do not rely on memory alone.

- Write your master password on paper and store it in a safe place.
- Consider setting a password clue (visible in the app's forgot-password dialog).

Verify Imports After Major Updates

Always test restored ZIPs on another device or fresh install.

Confirm record counts, image presence, and label formatting.

Open a few records to verify integrity.

This ensures your backups are functional before you rely on them.

Keep Exports Clean

Avoid editing Ripple-generated .csv files manually unless you know the structure.

If you must edit:

- Use a text editor or spreadsheet app that doesn't add formatting
- Stick to plain text, no formulas or auto-formatting
- Exported files should ideally not be edited unless needed.
- Always test the edited archive with the Import Structure tool before importing

12. Appendices

CIC Format and Examples

Each category is assigned a CIC (Category Identifier Code) — a unique 4-letter uppercase code generated automatically.

Examples:

Notes:

- CICs are used in folder names, record IDs, and image filenames.
- Ripple assigns the next available alphabetic code during category creation.
- CICs are permanent once created — changing the category name does not change the CIC.
- Category names and their CIC codes might be:- AAAB = Credit Cards, AAAD = Vehicles, etc. (examples only). The CIC is generated automatically with no user intervention. It is an internal app identifier only.

File Structure Reference

Android Directory

/storage/emulated/0/Ripple/

—— @Hive/	← Hive database files
—— @Export/	← Encrypted ZIP exports
—— @Temp/	← Used for temporary import or structure analysis

```
|---- AAAB/           ← Category folder (CIC = AAAB)
|    |---- AAAB_records.csv
|    |---- AAAB_labels.csv
|    |---- Pictures/
|    |    |---- AAAB-BB12F.jpg
|    |    |---- AAAB-BB12F_2.jpg
```

Windows Directory

C:\Users\<YourName>\Documents\Ripple\

```
|---- @Hive\
|---- @Export\
|---- @Temp\
|---- AAAC\
|    |---- AAAC_records.csv
|    |---- AAAC_labels.csv
|    |---- Pictures\
|    |    |---- AAAC-BB22A.jpg
```

 **Never rename or move files inside these folders manually.**

Flutter Debug Codes (For Developers & Testers)

Ripple includes embedded debug codes in console logs (e.g., flutter:  LS01 - ListScreen build initialized).

Examples:

- Use these codes for:
- Troubleshooting in debug builds
- Tracking app flow during complex actions

- Reporting precise issues during testing

Manual Complete