# reMarkable Connection Utility (RCU)

Screenshot of Device Info

All-in-one offline/local management software for reMarkable⊡ e-paper tablets (RM1 and RM2). RCU ensures the user's data is never out of their control, completely unshackled from the manufacturer's proprietary cloud.

No product keys, no restrictions—freely sharable. Does not make unsolicited network requests.

- Take and restore low-level backups (RM1 only)
- Save screenshots
- Upload, download, and export documents
    - Custom ink colors
    - PDF layers/annotations
- Manage templates
- Set wallpaper
- Install third-party software
- Check battery health
- Works over USB or WiFi
- Extensible and libre (Python 3, Qt 5)

Check out the manual to see how it works. Check out these rendering samples to see the quality of exported drawings (rM screenshot on the left, RCU export on the right).

## News

- 2021-05-09: Development version r2021.002(a) is released.
- 2021-03-26: New compatibility published for r2021.001 and 2.6.2.75.
- 2021-03-09: New compatibility published for r2021.001 and 2.5.1.45.

RSS Feed

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## Compatibility

For detailed compatibility information, please refer to the Release Notes appendix in the user manual. RCU's compatibility table may be updated from the About Pane.

- Full compatibility with reMarkable 1 and 2
- System software 1.8.1.1–2.6.2.75

RCU is supported under the following operating systems, but more have been reported by users to work.

- FreeBSD 12.1
- Ubuntu, Fedora, openSUSE, CentOS
- Apple macOS 10.13–11.2
- Microsoft Windows 10
  - RM2 users: there is <u>no need</u> to install the libusb driver.

## Download

I have not damaged my tablet from this software or encountered any accidental data loss, nor have any users reported issues like this.

With this software *you have rights*. You are free to run RCU for any purpose, to study, share, or improve it. This is called <u>free software</u>⮱, because with it, the user is free. Read more about these permissions in the software license: <u>GNU AGPL v3</u>⮱ (or any later version).

Customers will receive portable executables (run anywhere) for every OS, complete source code, <u>user manual</u>, and one (1) year of program updates and email support from the author.

This software is sold as-is, without warranty, for **$12 USD**. Click the button below to use PayPal's secure checkout. Upon payment, you will be redirected to the secure (HTTPS) download page.

Buy Now with PayPal

Alternative payments may be accepted. Please discuss this with me <u>by email</u>.

## Features

### Low-level backups (<u>only</u> for RM1)

Take and restore low-level backups which can be used to restore a bricked device. Backups may also be used to revert the device to an earlier snapshot (such as to downgrade the OS). With *Full*-level backups, users may restore any of the following: the full system, only the OS, only the user/application data, or only the bootloader.

Screenshot of Device Info Pane

### Screenshots

Save screenshots of the tablet as full-res./lossless PNG images in portrait or landscape orientation.

Screenshot of Display Pane

### Notebook management

Upload and download full notebook archives from the tablet. Archives include any custom templates used in the notebook, and are exact replicas which may be restored at any time, to any reMarkable.

PDFs and Epubs may be uploaded, or they may be exported as the original documents, or rendered with annotations.

RCU exports PDFs in two types: high-quality bitmaps, suitable for printing,

and vectors useful for editing later in other software. RCU exports PDFs faster than the reMarkable itself, because the documents are rendered on the PC. It also will transfer documents too large for the reMarkable web UI (>200 MB).
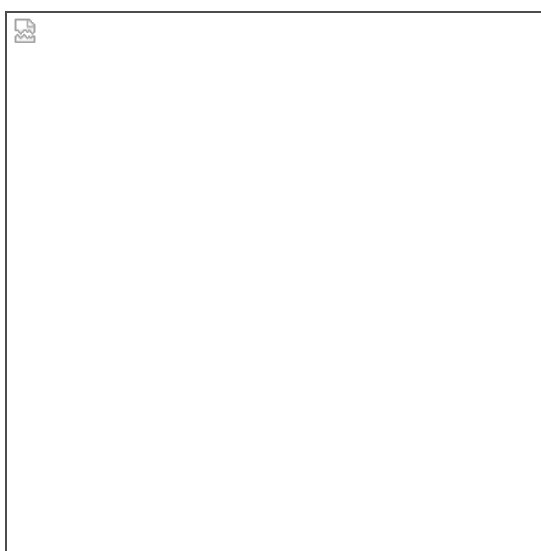
RCU exports documents with higher fidelity, and lower file sizes, than the reMarkable.

- Screenshot of reMarkable
- RCU's PDF (bitmap) export
- reMarkable's web UI export

Screenshot of Notebooks Pane

### PDF Export Options

Export PDFs with custom ink colors, and real PDF highlight annotations (sidebar index) and toggle-able layers (a.k.a. optional content groups).



### Template management

Templates may be uploaded (as RMT, SVG, or PNG) and downloaded (as RMT) from the device. Automatically handles orientation/rotation.

Screenshot of Templates Pane

### Wallpaper

Set custom wallpaper for Suspend and Power Off screens, or revert them back to the originals.

Screenshot of Wallpaper Pane

### Software

Install third-party software (as RMPKG). I provide some font packages as a courtesy for Chinese (tc or sc), Japanese, and Korean.

The RMPKG specification is open, accessible, and sample packaging code is included (tell your nearest programmer that it's easy to use).

Screenshot of Software Pane

**Safe-guards**

Care was taken to prevent data-loss scenarios. RCU will warn the user if the situation becomes unsupported, but it won't restrict the user from doing what they want.

After the reMarkable conmpany issues their software updates, and after I test them, I publish a new compatibility table which can be updated from within RCU's About Pane.

Screenshot of an incompatible version of Xochitl

## Frequently Asked Questions (FAQ)

**Why should I buy RCU?**

- "I work in a secure facility and cannot use cloud services."
- "I want to export notebooks with higher quality than the manufacturer's app."
- "I want to take full device backups, so I can never brick my tablet."
- "I want to own my data."
- "I want human support directly from the author to rapidly diagnose and fix issues."
- "I want to support independent [free software]➲ development."
- "I believe in the author, and want him to build a libre handwriting recognition engine, and eventually create *magic paper* software in the spirit of Dynabook."

**How does the checkout process work?**

You may purchase RCU by pressing the *Buy Now* button above. After payment, PayPal will redirect you to the download page ([screenshot]). Sometimes PayPal fails to redirect—don't worry, I'll send you an email within 24 hours that also contains the download link. If you haven't received a welcome email, check if your initials and hashed email are on [this list] of undeliverable addresses.

**How do I get support for an issue?**

Please send me [an email], including as much information as possible about your problem. For technical questions, please include the version numbers of RCU and PC operating system. Details about support inquiries may be found in the [user manual].

**What information do you collect about me?**

Customers will have their transactions tracked through PayPal, and I maintain a confidential email list to inform eligible users of program updates. Email communications may be stored indefinitely, but if you want me to delete a specific communication then I will respect your wishes. RCU does not write logs to disk (but does pipe to stdout/stderr). Log data is only transmitted manually (e.g. copy/paste into an email). RCU will only make an external network request (an HTTP *GET*) if you press the *Check for Updates* or *Fetch Compatibility* buttons.

**Will I need to re-purchase RCU in a year?**

Only if you want continued updates and support. Old versions of RCU will keep working until a PC or tablet software update permanently breaks compatibility. Financial support directly sustains program development and maintenance.

**Will RCU work under my operating system?**
Customers will receive RCU binaries for FreeBSD 12.1, Ubuntu 18/20 LTS, Fedora 33, openSUSE 15.2, CentOS 7, macOS 10.13–11.2, and Windows 10. It is reported to work on Apple M1 CPUs with Rosetta 2. It can be run from source code, or re-compiled for nearly any OS supported by Qt↪. Most GNU/Linux distributions have been reported to work with a single make. RCU executables are portable and do not need to be installed, but Windows+RM1 users require an installed driver (libusb) for taking/restoring low-level backups, and for using the USB recovery OS.

**Will RCU void my tablet's warranty?**
It is unknown whether the use of third-party tools will void the warranty↪ offered by reMarkable AS. You might find the advice in this Reddit thread↪ helpful. The exact terms read (as-stated on January 11, 2021):

> "There is no warranty for Product(s) that have been ... used with third party equipment and/or software not provided nor approved by reMarkable, to the extent the problem is attributable to such use ..."

I have not damaged my tablet from this software or encountered any accidental data loss, nor have any users reported issues like this.

**Why are low-level backups not supported for RM2?**
Low-level access to RM2 is only possible through its (5-pogo pin) accessory port—a special kind of cable is required. These are not sold commercially, so one must solder their own↪. I eventually plan to support low-level backup/restore for RM2 with the use of such a cable.

**Why is RCU better than the official reMarkable desktop application?**
RCU keeps your data to yourself, while reMarkable's software sends your data to third-party cloud servers (Google, MyScript, *etc*). RCU works under both free and non-free operating systems, while reMarkable's software only works under non-free ones. Unlike reMarkable's software, RCU has a straight-forward and conventional interface. The reMarkable company won't let you study, modify, or share their program; RCU is freely usable for any purpose and gives you these rights *with* the complete source code.

**Why is RCU better than eInkPads' applications?**
RCU is attached to my personal reputation, so I have skin in the game to make sure it's high-quality. In comparison, eInkPads is an opaque and faceless company. RCU offers more features at a lower price. Unlike eInkPads, I'm not hiding RCU's source code (or malice, or incompetence). eInkPads' software is confusing because operations are split between separate programs, and they use non-conventional interface components, while RCU conforms to conventional guidelines and is all-in-one.

## Legal

RCU is free software: you can redistribute it and/or modify it under the terms of the GNU Affero General Public License as published by the Free Software Foundation, either version 3↪ of the License, or (at your option) any later version.

This software is sold as-is, without warranty. However, I do have a personal interest in making sure each customer is satisfied, so please email me for support if you have a problem (details are in the manual).

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this work refers to the company's e-paper tablet products.