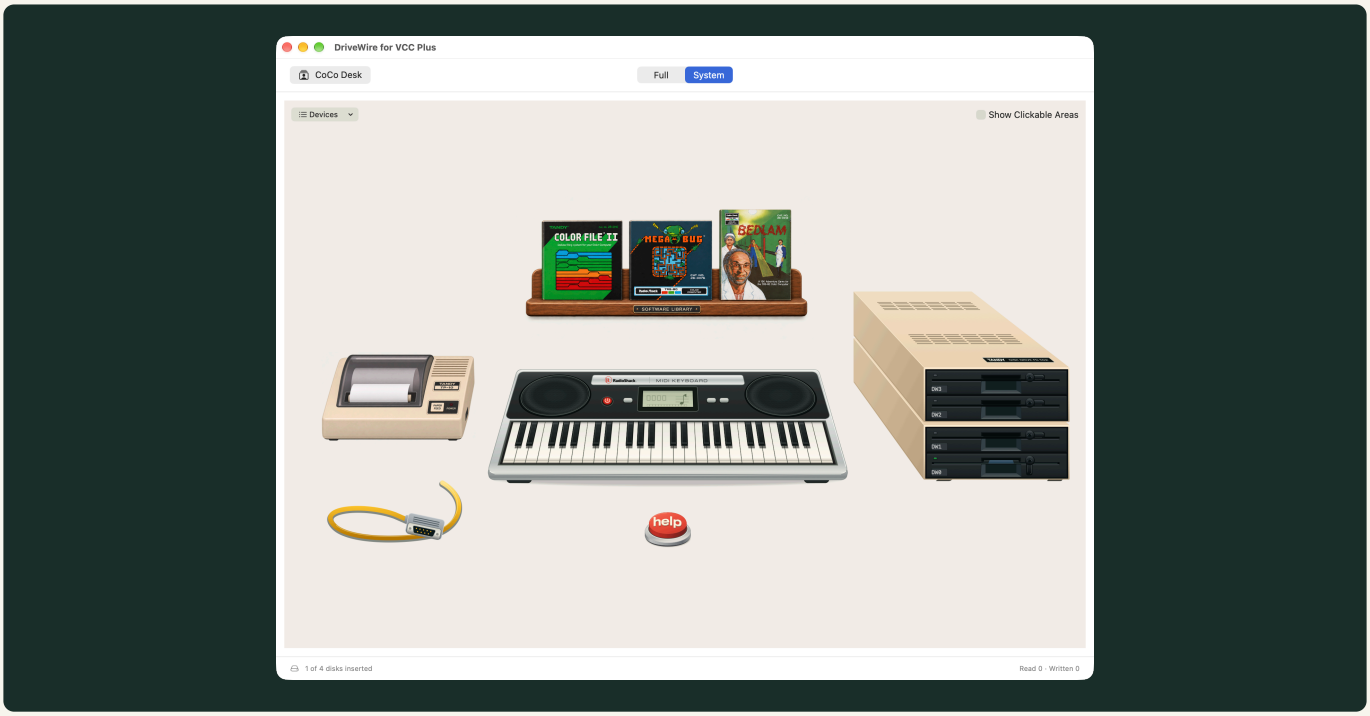
DriveWire for VCC Plus Manual

Connect your CoCo, browse the Software Library and edit disk images



DriveWire System view with disk bays, printer, MIDI keyboard and Software Library. The connection and device controls open from the illustrated desktop.

Brian K. Holman

3.7.1

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DriveWire for VCC Plus Manual

Connect your CoCo

DriveWire for VCC Plus is a separate Mac host for the DriveWire protocol. Your real Color Computer runs the guest software; the Mac supplies disks and other host services. You do not need the old Java host for this application.

Before you connect

Use a DriveWire-compatible cable and guest ROM or operating system. A stock Disk BASIC ROM does not acquire DriveWire support just because a cable is connected. This Mac application requires macOS 14 or newer.

Before opening a connection, have these items ready:

- A guest with DriveWire support and its connection instructions.
- The correct serial cable and USB adapter, or a compatible TCP endpoint.
- A working copy of a disk image appropriate to the guest and its software.
- The serial speed or network address and port expected by that guest.

The tested real-machine setup uses a CoCo 3 with HDB-DOS 1.4 DW3 COCO 3 and a serial adapter at **115200 baud**. Other guest ROMs and machines can require a different rate. Follow the instructions for your actual ROM and cable.

Choose	When to use it	Information you need
Serial	A physical DriveWire serial connection to the CoCo	The Mac's adapter and the guest's baud rate
Network	A compatible guest or emulator with a DriveWire TCP endpoint	The endpoint's address and port

The apps keep their own running state. You can use DriveWire hosting without running the VCC Plus emulator. The shared editor and Software Library require a compatible VCC Plus installation; see Companion tools.

New users start in the illustrated **System** view; the app remembers a later choice of **System** or **Full**. Both presentations use the same live session. See System and Full views for the device targets and activity lenses. Changing presentation does not disconnect the CoCo.

Connect a serial guest

1. Connect the adapter and cable. Close or disconnect any other application using the same adapter; only one host should own it at a time.
2. Open DriveWire for VCC Plus. The first launch opens your editable **Default** personal profile; later launches restore the last active profile. Check the active profile name before changing a saved setup.
3. Choose **Connection...** from the yellow cable in System or the connection bar in Full. Select **Serial**.
4. Choose your adapter in **Serial Port** and the guest's speed in **Baud Rate**. The device's underlying Mac path normally begins with `/dev/cu.`. If you are unsure which adapter to select, compare the list before and after connecting the adapter.
5. Choose **Connect**. Read the **Status** line: it distinguishes a connected port from a disconnected setup or one waiting for the selected adapter.
6. In **System**, click **DW0** on the drive stack and choose **Insert...**. In **Full**, open **Virtual Disks** and use **Insert...** beside **DW0**. Select the working disk image, then continue with the first directory request.

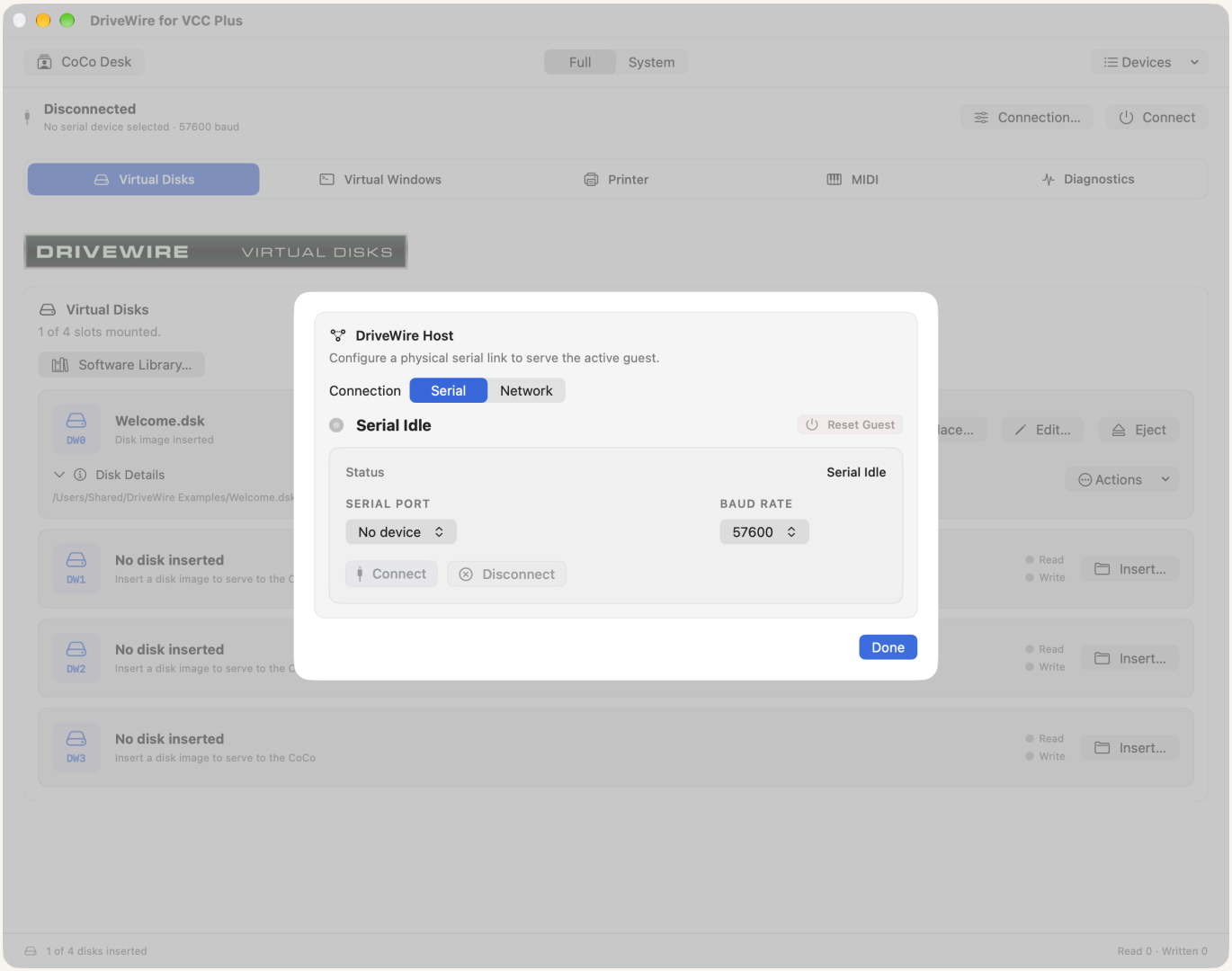


Figure 1: The Serial connection controls before an adapter is selected. Choose the actual adapter and the baud rate required by the guest.

Control	What it does
Serial Port	Chooses the Mac adapter. **No device** leaves the profile unconfigured; a remembered missing adapter is identified as not present.
Baud Rate	Offers 57600, 115200 and 230400. Match the guest's setting rather than choosing the highest value.
Connect	Requests the selected connection. Selecting an adapter alone does not connect a deliberately disconnected profile.
Disconnect	Stops a connected or waiting request. The app remembers this choice.

Changing the port or speed while a connection is requested reconnects using the new selection. Do this between guest operations, rather than while transferring a disk or saving a guest file.

DriveWire remembers both the adapter and whether you requested a connection. If the adapter disappears, a requested serial connection waits and reconnects when it returns. **Disconnect**, or **Cancel** in the waiting connection bar, stops that request. A deliberately disconnected profile stays disconnected on the next launch until you request a connection again.

Connect a network guest

1. Start the compatible guest or emulator's DriveWire TCP endpoint and obtain its address and port from that program's instructions.
2. Open **Connection...** from the yellow cable or **Devices** in System, or from Full's connection bar. Select **Network**. Switching transport disconnects the previous serial or network connection.
3. Enter **IP Address** and **Port**, then choose **Connect**. The address is the guest endpoint the Mac should contact. Use `127.0.0.1` only when that endpoint is on the same Mac; the example port `6809` must match the actual endpoint.
4. Check **Status**, then insert the appropriate disk in the desired DW slot. A connected network stream alone does not establish that the guest is using the intended disk mapping.

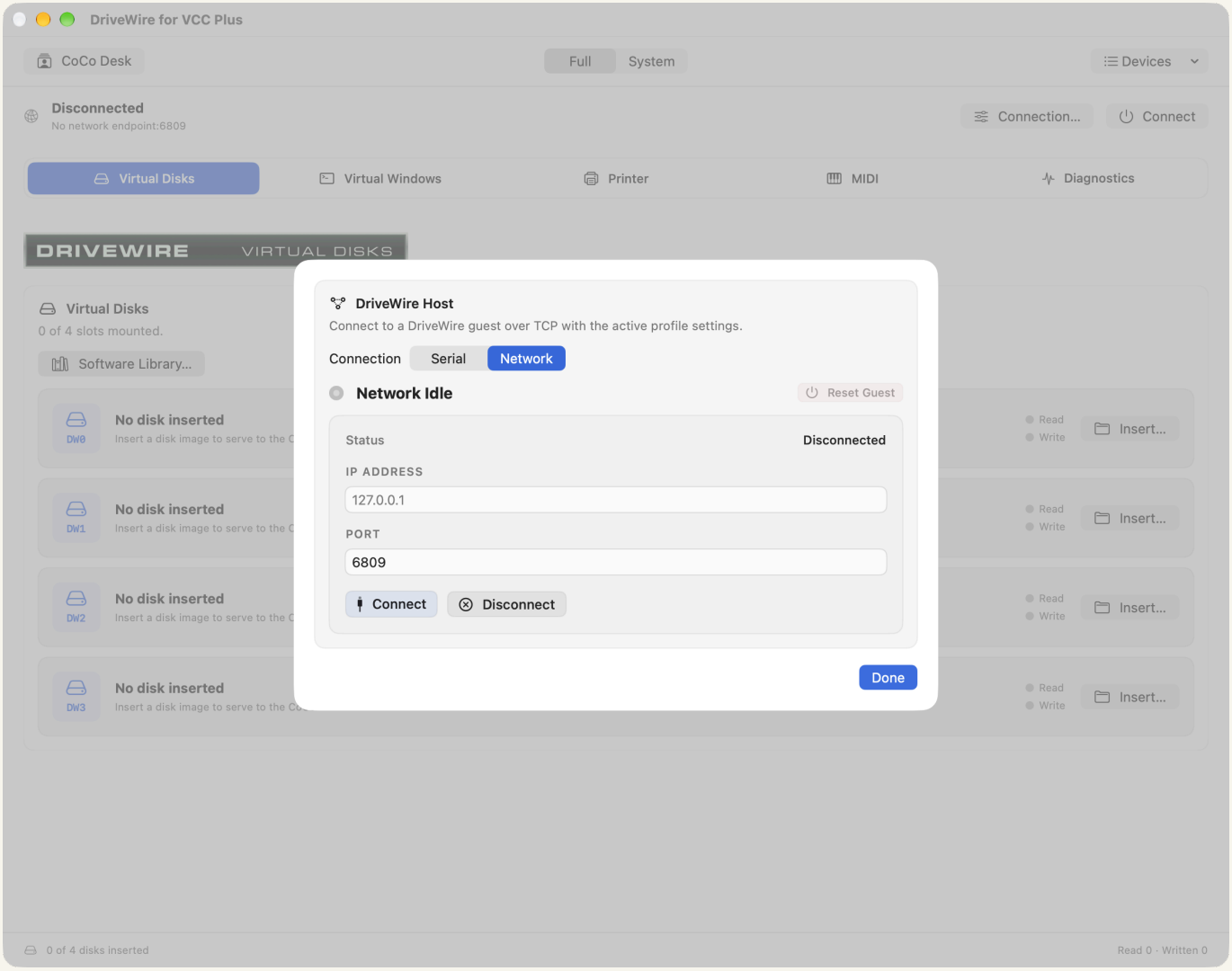


Figure 2: The Network connection controls with the local example endpoint 127.0.0.1 and port 6809. Use the address and port supplied by the guest.

Control	What to enter or expect
IP Address	The address of the compatible DriveWire TCP endpoint.
Port	Its TCP port, from 1 through 65535.
Connect	Opens the network connection using the entered endpoint.

Control	What to enter or expect
Disconnect	Stops the connection request so you can change the endpoint.

The address and port fields are unavailable while a network connection is requested. Choose **Disconnect** before editing them. A serial cable does not become a network connection by selecting Network.

Serial and network settings belong to the active personal profile. Each transport retains its own connection settings and disk locations when you switch between them. Appearance, text size, printer output and the MIDI default belong to the application and live in **Settings...**.

Ask for a disk directory

With a suitable Disk BASIC image in DW0, ask the guest for its corresponding disk directory. For a CoCo using the expected HDB-DOS virtual-drive mapping, try this **on the CoCo**:

```
DIR 0
```

Watch the DW slot's **Read** indicator while the guest makes the request. A successful directory command should also produce the expected filenames on the CoCo. Brief activity shows that a request occurred; check Diagnostics if the guest reports an error. Neither a connected indicator nor an inserted filename alone proves a successful disk read.

To load a BASIC program listed on that disk, use its own filename, for example:

```
LOAD "HELLO"
RUN
```

A different image, operating system or ROM mapping can require another drive selection or loading command. Consult the program's instructions; mounting an image does not automatically boot or run it. HDB-DOS can also map real floppy drives, so confirm the mapping rather than assuming a physical drive number and a DriveWire slot are interchangeable.

If the first request does not work, isolate the failing step:

What you see	What to check next
The serial adapter is missing or waiting	Check the USB connection and selected adapter. Reconnecting a requested adapter should resume the connection; do not start a second host on the same port.
Serial is connected, but the guest produces no activity	Check the cable, guest DriveWire support, baud rate and guest drive mapping. Opening a Mac port does not prove the guest is speaking DriveWire.
Network stays disconnected	Confirm that the endpoint is running, its address and port match, and the Mac can reach it.
Read activity appears, but the directory is wrong or fails	Check the mounted image, guest filesystem and selected virtual-drive mapping. Review Diagnostics for the last operation and error.
The Mac image changed, but the guest still sees old contents	Finish guest work first. Use the controlled editor workflow or deliberately reload and remount; see disk details and reload.

Keep a reusable profile

Connection choices, disk locations and profile changes save automatically. You do not need to name or save a session document. The **Default** profile is your own editable setup, not a read-only template.

1. Choose **File** → **Profiles...**, or click the active profile name at the top of the window.

2. Choose **New Profile...** and enter a descriptive name, such as “CoCo 3 serial”.
3. Keep **Copy current connection settings and disk locations** selected to reuse the setup, or clear it for an unconfigured serial setup with no disks.
4. Choose **Create Profile**. Creating it leaves the current profile active.
5. Select the new profile and choose **Use Profile** when you are ready to switch.

The app restores the last active profile next launch. Copying a profile's disk locations references the same files; make separate image copies in Finder when you need independent source disks.

Profiles remember configuration and file locations, not the CoCo's running memory or a backup of every disk image. Changed guest disk bytes stay in memory while switching profiles and are preserved separately in **Recovery** when closing DriveWire. Read Disks and personal profiles before replacing, reloading or recovering a disk. Existing `.dwdoc` files are not imported or migrated; set up a personal profile directly.

System and Full views

DriveWire for VCC Plus has two presentations of the same live session. **System** puts the host's services on an illustrated desktop. **Full** shows the complete five-panel interface. Use the **Full | System** control at the top of the window.

The screenshots show complete native windows of the signed DriveWire for VCC Plus app in System and Full. Connection and disk choices shown are examples, not recommended settings for your CoCo.

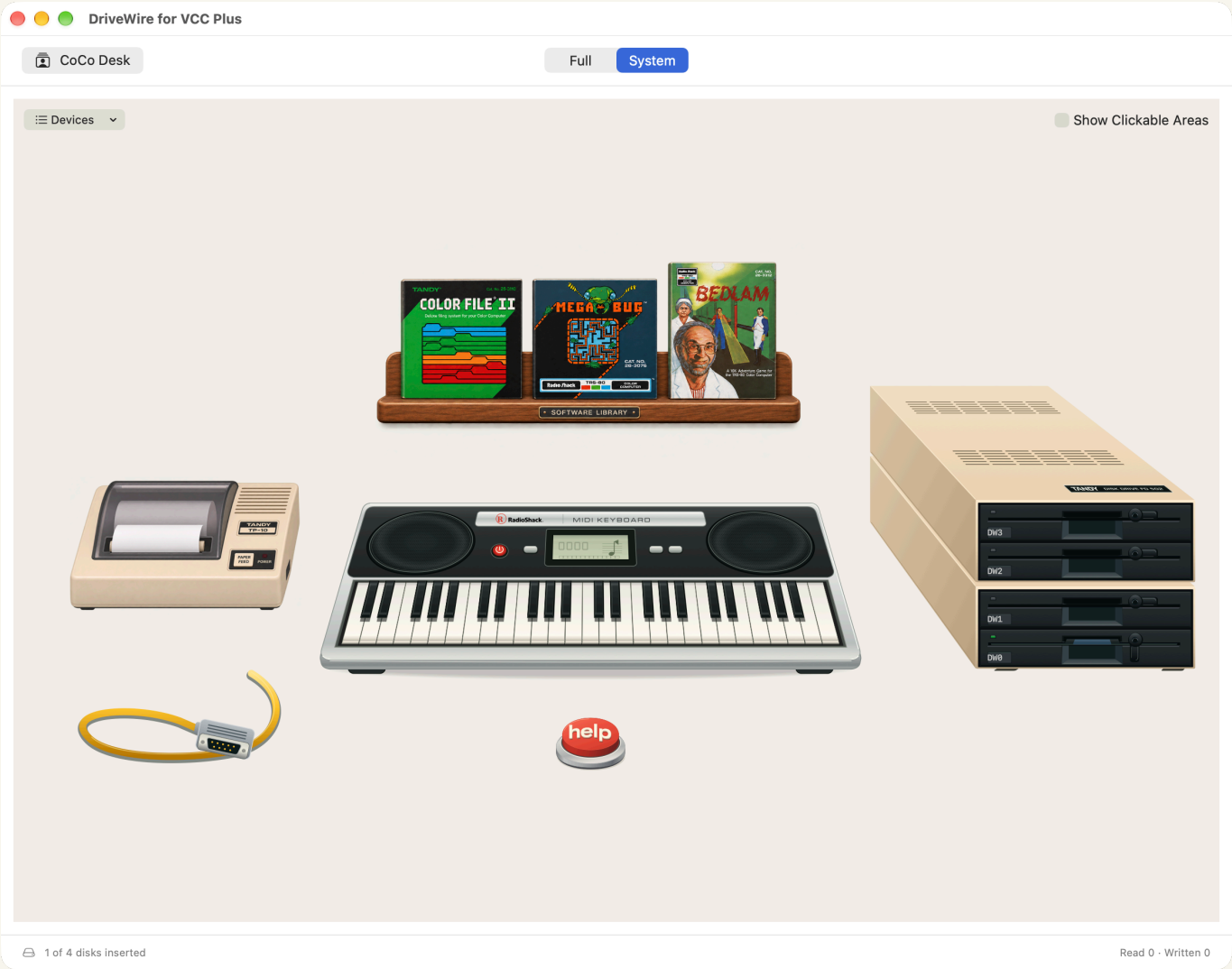


Figure 3: System puts the software shelf, MIDI keyboard, printer, four disk bays, connection cable and Help on one desktop.

Choose your presentation

New users start in System. The app remembers your choice for the next launch. Switch to Full whenever you want its tabs and detailed controls; return to System for the device view.

Switching presentations does not reconnect the port or network endpoint, remount images, or restart the session. Your connection, inserted disks, guest changes, printer output and MIDI state belong to the session, not to its presentation. The illustrated devices open the same controls used in Full. A service can remain idle even when its drawing is visible: the guest must actually request disks, printing or MIDI output.

To do this	In System	In Full
Insert or inspect a disk	Click its **DW0–DW3** bay.	Open **Virtual Disks**.
Set the adapter or TCP endpoint	Click the yellow cable, then use **Connection…**.	Choose **Connection…** in the connection bar.
Read printer output	Click the printer.	Open **Printer**.
Inspect or stop MIDI	Click the speaker keyboard.	Open **MIDI**.
Inspect virtual channels	Choose **Devices → Virtual Windows…**.	Open **Virtual Windows**.
Inspect protocol results	Choose **Devices → Diagnostics…**.	Open **Diagnostics**.

Choose **Done** to dismiss a System device panel. This returns to the illustrated desktop while the service and connection keep their current state.

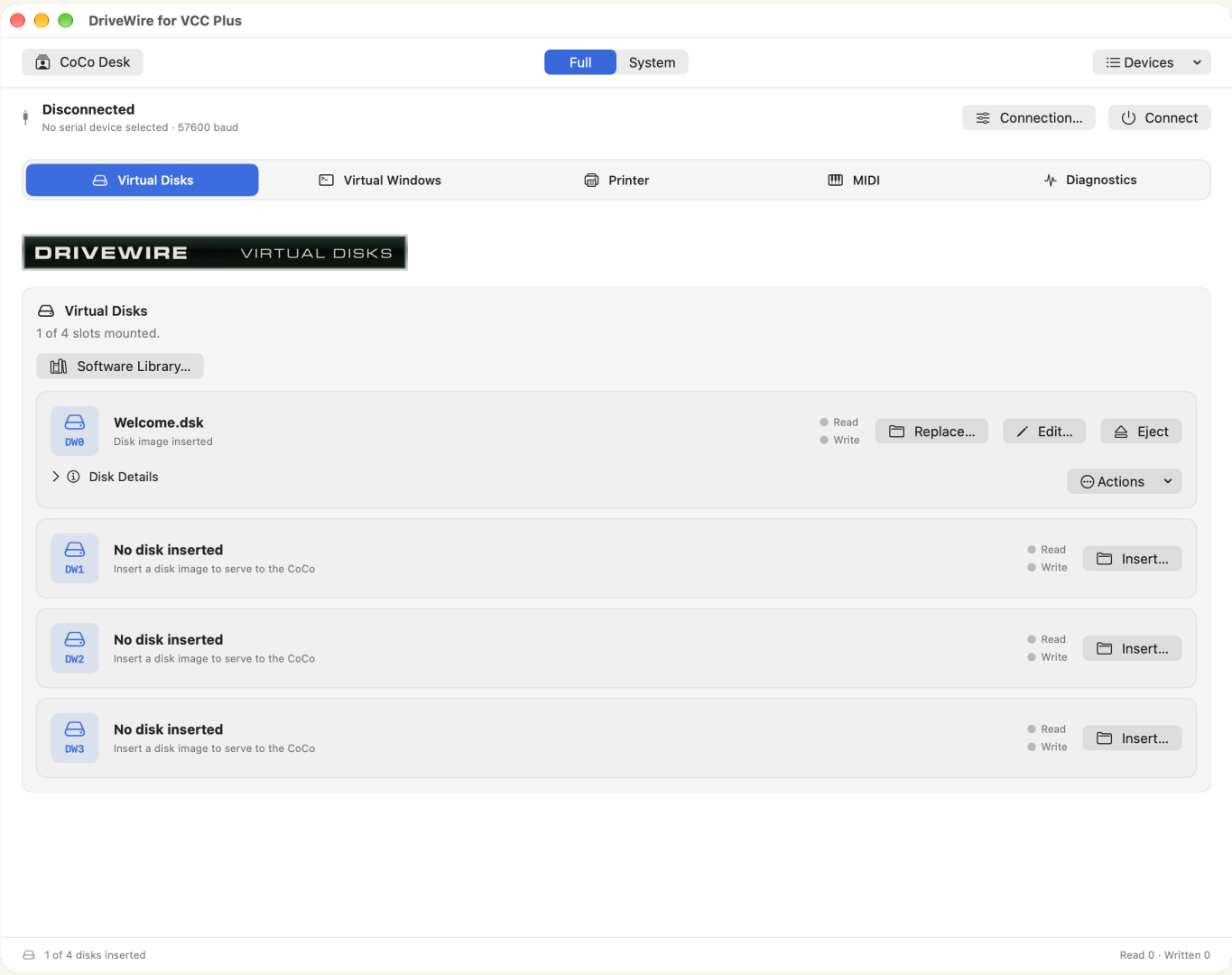


Figure 4: Full retains Virtual Disks, Virtual Windows, Printer, MIDI and Diagnostics, with the connection bar above them.

Choose a personal profile

The profile name at the top of the window opens **Personal Profiles**; the same window is available from **File → Profiles...**. Your first **Default** profile is an editable personal setup. Changes save automatically, and the last active profile returns on the next launch.

Use **New Profile...** for an optional named setup. Creating it does not change the active profile: select the row and choose **Use Profile** when ready. Switching profiles changes the active connection and disk locations; changing **Full | System** only changes how the same active setup is displayed. See Disks and personal profiles for switching and recovery safeguards.

Open the four disk bays

Click **DW0**, **DW1**, **DW2** or **DW3** on the drive stack to open that slot's disk controls. Insert, replace, eject, inspect details and use the same Actions menu as in Full's **Virtual Disks** panel. **Edit...** uses the same shared editor when a compatible VCC Plus installation is available. Choose **Done** to return to the desktop.

The artwork does not create extra drives or change how the guest maps a DriveWire slot. Read Disks and personal profiles for automatic settings, recovery, reload and media safeguards, and Companion tools for editing and the shared library.

Read the drive lenses

Each bay has an activity lens:

- **Off:** no disk is inserted.
- **Green:** a disk is inserted and is idle.
- **Blue:** a recent read request reached that drive.
- **Amber:** a recent write request reached that drive.

The blue and amber indications come from actual DriveWire protocol activity, including attempted operations. They do not guarantee that a request succeeded; use Diagnostics for results and errors. A disk's unsaved bytes do not cause a decorative activity animation.

Editing is a separate state while the companion editor holds the drive. The editor's lease prevents guest access until the edit is applied or cancelled; it is not a read or write animation. Finish disk activity on the CoCo before opening the editor, and follow its reset instructions after applying changes.

Open MIDI from the keyboard

Click the illustrated speaker keyboard to open the existing **MIDI** status and controls, including **Stop MIDI**. The keyboard is a way to reach the host's MIDI service; its drawn keys are not a playable synthesizer.

The guest must send supported MIDI traffic to use that service. See MIDI output for destination selection and the meaning of its counters.

Open printer output

Click the printer to open the existing **Printer** preview, status and output settings. The drawing does not send a print job by itself. See Printer output for saved jobs, printer destinations and Text or Raw output.

Browse disks from the software shelf

Click the software shelf to open the same disk-only **Software Library** used from Virtual Disks. It communicates with VCC Plus for the single catalog, installation records and downloads; DriveWire keeps no second library database. A compatible VCC Plus installation is needed for this optional feature.

Choose a destination DriveWire slot and insert a separate writable copy. See The disk-only Software Library for the complete workflow. Opening the shelf does not insert or run software by itself.

Open the connection controls

Click the yellow serial cable to open **Connection...** for the active personal profile. Select **Serial** for adapter and baud-rate controls or **Network** for the TCP endpoint controls. Both sets of settings and disk locations are remembered when you change connection type. The cable drawing is a general entry point, not a claim that physical serial hardware is attached.

Opening the controls does not itself reconnect or change the connection type. Use Connect your CoCo for the serial and network setup steps, and check the live connection status before testing a disk. A requested serial connection waits for its adapter; **Disconnect** or **Cancel** stops that request and remembers your choice.

Use Devices and Help

The **Devices** menu is at the upper left inside the System scene's white border. It provides labeled access to every device target: the four disk bays, MIDI, Printer, Software Library, Connection and Help. It also provides **Virtual Windows** and **Diagnostics**, which open the corresponding panel in Full. Use this menu when a labeled choice is easier than clicking the artwork.

Click the **Help** button on the desktop to open this manual's home page. The help contents and search cover both presentations. Full keeps all five panels: **Virtual Disks**, **Virtual Windows**, **Printer**, **MIDI** and **Diagnostics**.

Find clickable areas

Turn on **Show Clickable Areas** at the upper right inside the scene's white border to outline the device targets. The outlines help you locate the software shelf, keyboard, printer, individual disk bays, cable and Help button. Turn the checkbox off to return to the ordinary artwork. This display aid does not connect a device, mount a disk or start a service.

Disks and personal profiles

The **Virtual Disks** panel in Full keeps four DriveWire slots visible. In System, click a bay in the illustrated drive stack to reach the same disk controls. The guest continues to run on its own CoCo or compatible emulator. See System and Full views for the device targets.

Insert, replace and eject

The row identifies **DW0–DW3** and the selected filename. Work on a copy when testing development output or software from an archive, and confirm the slot number before replacing media.

Control	Purpose	Before using it
Insert…	Select a Mac image for an empty DW slot.	Choose a disk suitable for the guest's filesystem and drive mapping.
Replace…	Select a different image for an occupied slot.	Finish guest access and preserve any changes to the old image first.
Eject	Remove the disk from the slot.	Finish guest access and preserve any changes first.
Edit…	Open the mounted image in the shared VCC Plus Disk Image Editor.	Have a compatible VCC Plus available and follow the editor's guest-safety instructions.
Disk Details	Reveal the image's Mac file path.	Use it to distinguish images with the same filename in different folders.
Actions → Reload from File…	Replace the served contents with the current Mac file.	Preserve guest changes first; Reload explicitly discards them.

To insert a disk:

1. Open **Virtual Disks** in Full, or click the desired System disk bay.
2. Choose **Insert…** beside the intended slot and select the image in the Mac file chooser. Use **Replace…** only when you intend to remove its current disk.
3. Check the filename and expand **Disk Details** if you need to confirm the full path.
4. Ask the guest to access the correct mapped drive. Inserting an image does not boot it or run a program.

Preserve guest changes before removing a disk

Ordinary guest writes change the served in-memory disk. They do **not** automatically overwrite its Mac source file. Automatic profile saving records settings and file locations, not those changed bytes. Saving a program from the CoCo to a DriveWire disk can therefore still leave the only updated image in DriveWire's running session.

Replace…, **Eject** and **Reload from File…** are not save commands. Before using them on a disk that may contain useful guest writes, finish the guest's file operations, close DriveWire normally so it can preserve Recovery copies, and retrieve the changed image as described in Recover guest disk changes. Reopen and insert the intended recovered copy when you want to continue. Keep the original until you have confirmed the recovered disk contains your work.

While the shared editor holds a disk, its row reports **Disk Image Editor is open · guest disk access suspended**. Replacement, ejection and reload are unavailable for that disk. Complete or cancel the editor workflow before trying those actions; see Companion tools.

Read and write activity

Each drive has separate **Read** and **Write** indicators. They follow actual DriveWire operations, including brief requests, and return to idle afterward. A mounted filename means the image is inserted; it does not by itself mean the CoCo is currently accessing it.

System disk lens	Meaning
Off	No disk is inserted.
Green	A disk is inserted and idle.
Blue	Read activity.
Amber	Write activity.

Activity reflects protocol requests, including attempted operations. Check Diagnostics and the guest's result to establish success. **Editing** is a separate condition while the editor leases a disk. Unsaved guest bytes do not keep the activity indicator on.

Across the interface, blue is the ordinary interface and read accent; green marks ready or connected states; amber marks write or incoming activity; red marks errors. Text labels provide the same context without requiring you to distinguish colors.

Disk details and reload

Choose **Disk Details** to reveal the Mac file path. The whole disclosure heading is clickable, and the revealed path can be selected and copied. This is useful when a profile points to a development build or a copy in Downloads rather than the image you expected.

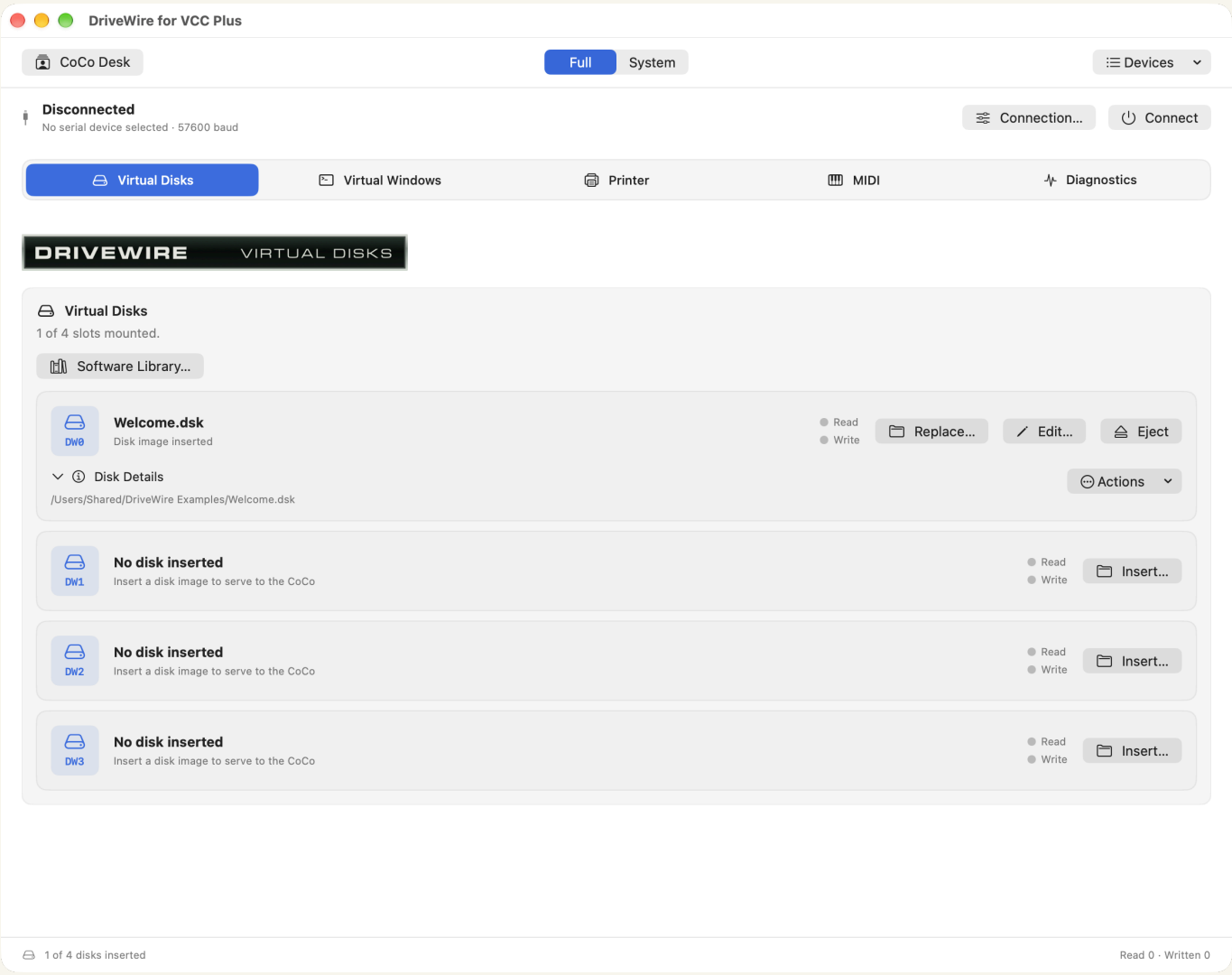


Figure 5: DW0 with Welcome.dsk inserted and Disk Details expanded to show the actual Mac file path. The guest is disconnected in this example.

Use **Reload from File...** only when you want the Mac file to become the served image again:

1. Finish guest disk activity. Preserve useful in-memory changes before continuing.
2. Confirm the path under **Disk Details** is the file you intend to load.
3. Choose **Actions → Reload from File...**.
4. Read the confirmation. **Reload** replaces the in-memory contents, including guest changes; **Cancel** retains them.
5. Have the guest safely re-open or remount the disk as its operating system requires before relying on its directory again.

For example, rebuilding an image in a development folder does not by itself refresh the disk already served to the CoCo. Reload chooses the file's new bytes; it does not invalidate a running guest's directory or allocation cache. Use the companion editor's explicit apply workflow, or stop the guest and intentionally remount the correct image. Do not edit the same source in another application while the guest is writing to it.

Personal profiles and settings

DriveWire opens the last active personal profile automatically. Your initial **Default** profile is editable: use it for your everyday setup, rename it, or create named profiles for different guests. Connection choices and disk locations save as you change them. There is no session-document Save step, and existing `.dwdoc` files are not imported or migrated.

Create and use a profile

1. Open **File → Profiles...**, or click the active profile name at the top of the window. The **Personal Profiles** window lists your setups and shows the selected profile's connection settings and disk paths.
2. Choose **New Profile...** and enter a unique, descriptive name.
3. Decide whether to keep **Copy current connection settings and disk locations** selected. Copying references the same source files; it does not duplicate disk images or copy the current guest's changed in-memory disk contents. Clear the option to start with an unconfigured serial connection and no assigned disks.
4. Choose **Create Profile**. The new profile is added without switching away from your current session.
5. Finish guest disk activity, select the desired profile and choose **Use Profile**. Selecting a row alone only previews its settings. The checkmark and **Active profile** line identify the setup actually in use.

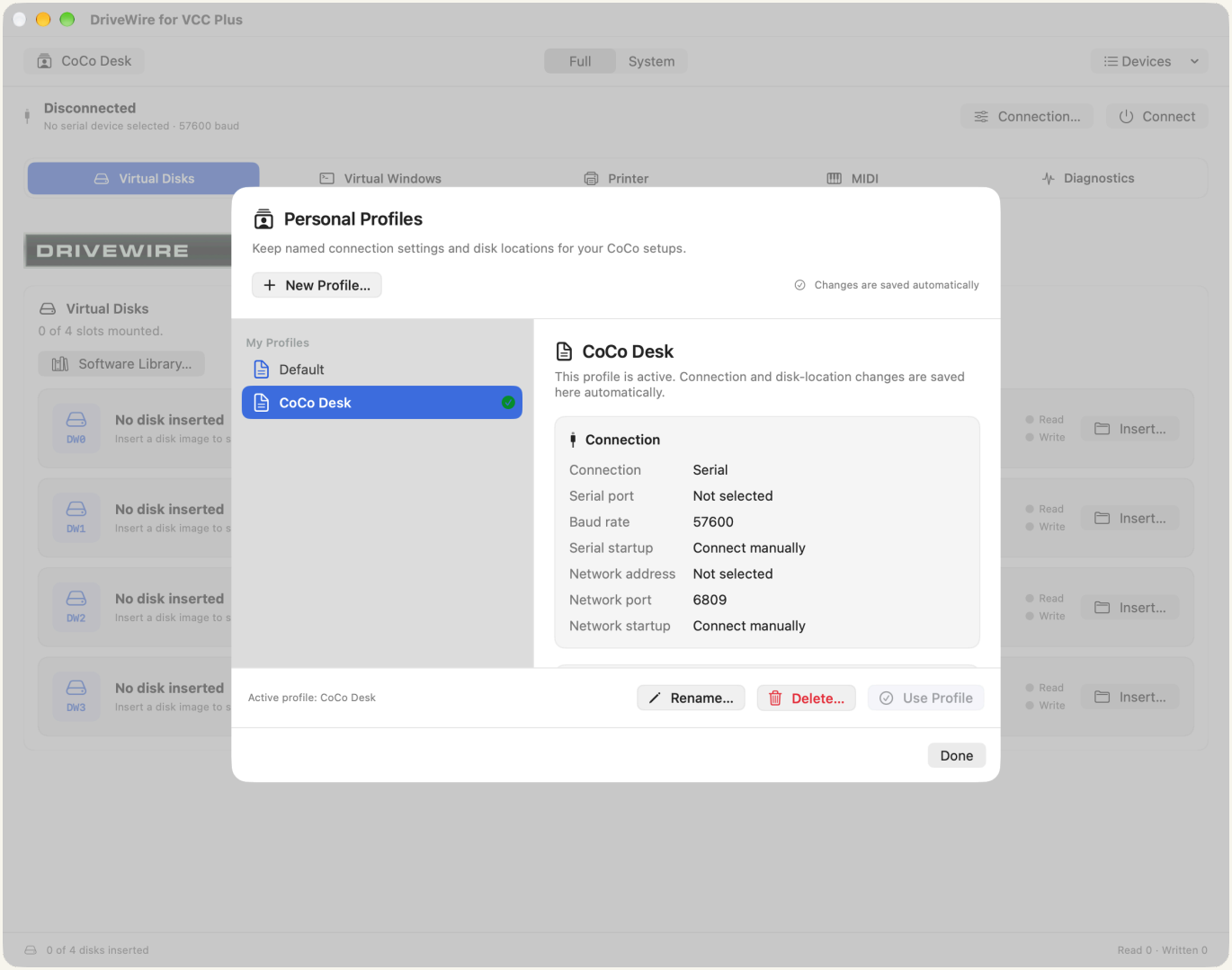


Figure 6: Personal Profiles with CoCo Desk active. Selecting a different profile previews it; Use Profile deliberately activates it.

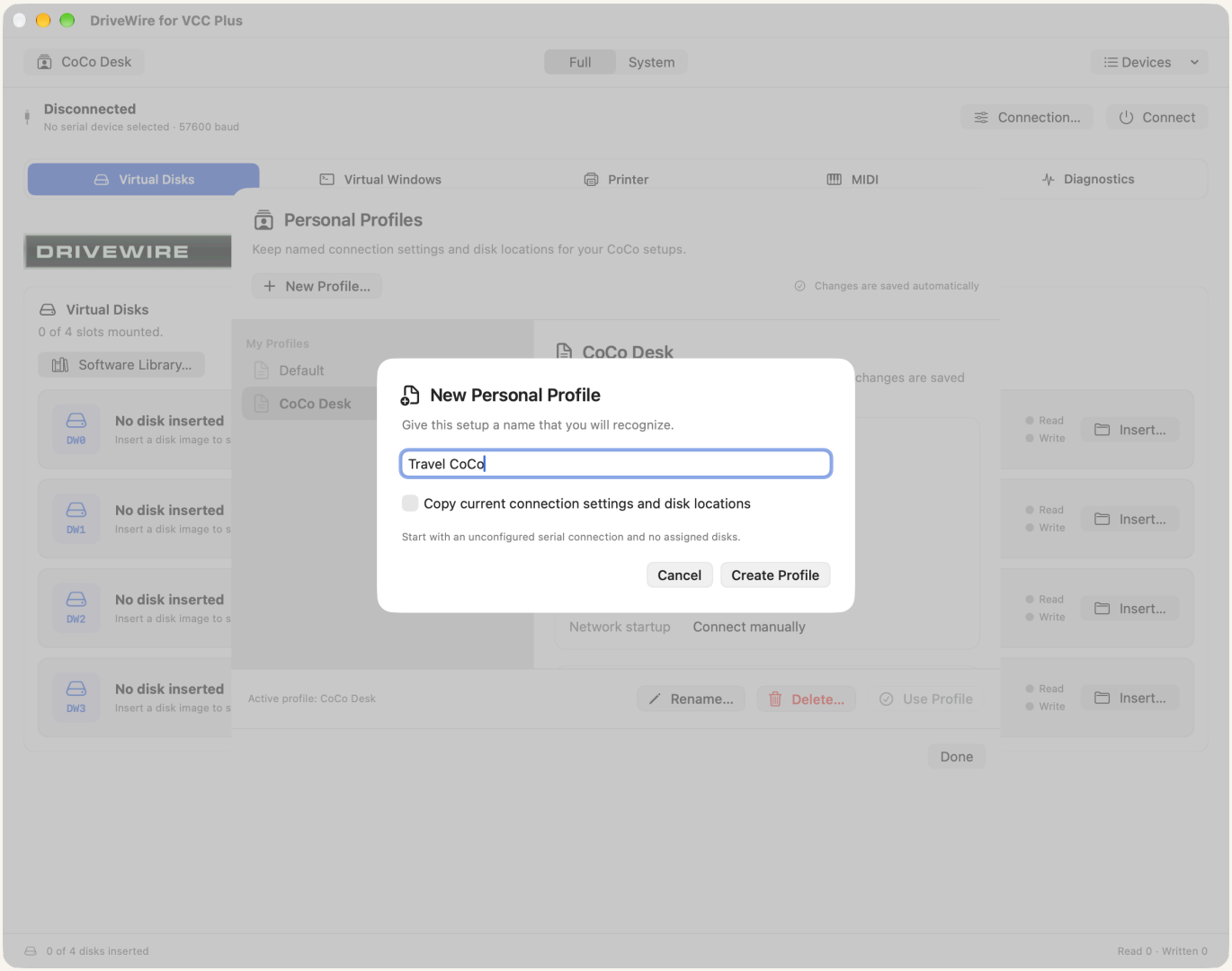


Figure 7: Create a named personal profile, choosing whether to reference the current connection settings and disk locations.

To edit a profile's live connection, activate it and use **Connection...**. To change its disks, use the System bay or **Virtual Disks**. The profile window is also useful for reviewing both transports' saved disk locations without activating a different setup.

Profile action	Result
Rename...	Changes the selected profile's name. Names must be unique, with 1–100 characters.
Delete...	Removes the profile after confirmation and keeps its source disk files. Changed guest bytes are preserved in Recovery first.
Use Profile	Activates the selected setup and its remembered connection request. If already active, the button is unavailable.

At least one personal profile must remain. Deleting the active profile activates another one; check which setup is active afterward.

Know what belongs to the profile

Saved with each profile	App-wide in **Settings...**
Selected Serial or Network transport	Appearance and text size

Saved with each profile	App-wide in **Settings...**
Serial adapter, baud rate and requested connection state	Printer destinations
Network address, port and requested connection state	Default MIDI output
Separate serial and network disk locations	Other application preferences

Switching transport disconnects the previous connection. Each transport retains its own configuration and disks. A requested serial connection waits for an absent selected adapter and reconnects when it returns. **Disconnect**, or **Cancel** while waiting, cancels that request and is remembered next launch.

Switching profiles keeps each open setup's guest disk changes in memory during that app session. It does not snapshot or reset the physical CoCo. Finish guest disk activity before switching. An open disk editor, incoming disk transfer or incomplete guest request can prevent a switch; finish that operation and retry. Switching **System** and **Full**, or changing a Full panel, preserves the same connection and inserted media.

Resetting the guest

Reset Guest is available in Connection when connected. It queues a reset request for the guest; guest support determines whether and when it responds. It does not guarantee an immediate reset or replace a required physical reset. Save your guest program and finish disk operations before requesting a reset. This is separate from the companion editor's instruction to reset the real CoCo after applying disk changes. A successful host request does not mean your unsaved guest work has been saved.

Recover guest disk changes

Before closing the DriveWire window or quitting, DriveWire preserves changed in-memory disk images in separate **Recovery** copies. It keeps the original source images unchanged. This includes changed disks retained in profiles you used earlier in that running session. Deleting a profile also preserves its changed guest disk bytes before removing that setup.

Closing waits for those copies. If they cannot be written, the window remains available so you can address the problem and retry. Finish an open disk editor, transfer or guest disk request if DriveWire reports that it cannot close yet. Do not force quit as a substitute for resolving a preservation error.

Continue from a recovered disk

1. Finish guest work and close DriveWire normally. Let it complete preservation.
2. Reopen DriveWire. When unacknowledged copies are available, choose **Show Recovery** in the notice. You can also choose **File → Show Recovery...** at any time.
3. In Finder, find the relevant recovered image. Each recovery batch has its own folder; filenames identify the transport, DW slot and original filename.
4. Copy the desired image to a useful working location. Keep both it and the original until you have checked the contents.
5. Finish guest access, then use **Insert...** or **Replace...** to mount the recovered working copy in the intended slot. Have the guest re-open or remount it as required by its operating system.
6. Verify the expected directory and saved files from the guest before deleting any other copies.

The Recovery folder is:

```
~/Library/Application Support/com.brianholman.vccplus.drivewire/Recovery/
```

Dismiss acknowledges the recovery copies currently reported. It keeps the files and remembers your acknowledgment across launches. New recovery copies produce a fresh notice. **File → Show Recovery...** remains available after you dismiss the notice. Manage unwanted copies in Finder only after preserving useful changes elsewhere.

Common recovery and profile questions

Situation	What to do
A saved guest program is missing after relaunch	Check Recovery. Relaunch loads the profile's referenced Mac file; it does not automatically mount the recovered image over that file.
Two profiles show the same image path	They reference the same source file. Copy the image in Finder and replace one profile's reference if you need independent source disks.
A saved image was moved or deleted in Finder	Restore the file or explicitly select its replacement. A remembered path is not a disk backup.
A profile switch is refused	Finish the disk editor, transfer or guest request named in the message, then retry.
The recovery notice returns for new files	Review the new batch. Dismissing an older notice does not acknowledge future recovery copies.

Recovery copies are not automatically mounted over your profile's original disk locations. Relaunch restores saved configuration and referenced files, not the CoCo's memory or its previous running program. Profile saving and recovery do not replace your own disk-image and source-code backups.

Software Library and Disk Image Editor

DriveWire for VCC Plus provides the shared **Software Library** and **Disk Image Editor** for disks served to your CoCo. VCC Plus maintains the catalog, verified installations and supporting documents; DriveWire supplies its own destination slots and safe editing handoff. The two applications keep separate running state.

Use matching versions

Install VCC Plus and DriveWire in **Applications**. Both public versions must match—**3.7.1** for this release—but their independent build numbers need not. DriveWire discovers a compatible VCC Plus automatically, including `/Applications/VCC Plus.app`. Available **Software Library…** and **Edit…** controls on an occupied, unlocked row indicate discovery. Ordinary DriveWire hosting works without the companion.

If the controls are unavailable, choose **Full → Virtual Disks → Locate VCC Plus…** and select the actual **VCC Plus.app**, not its DMG. After installing VCC Plus while DriveWire is open, finish guest work and close any editor before safely quitting and reopening DriveWire, or use **Locate VCC Plus…**. Opening the library then authenticates its local service and checks matching version and library support. If needed, VCC Plus starts that service in the background without restoring or replacing an emulator session.

In **System**, the software shelf opens the library and the individual drive bays provide **Edit…**. Full keeps both commands in **Virtual Disks**.

Edit a served disk

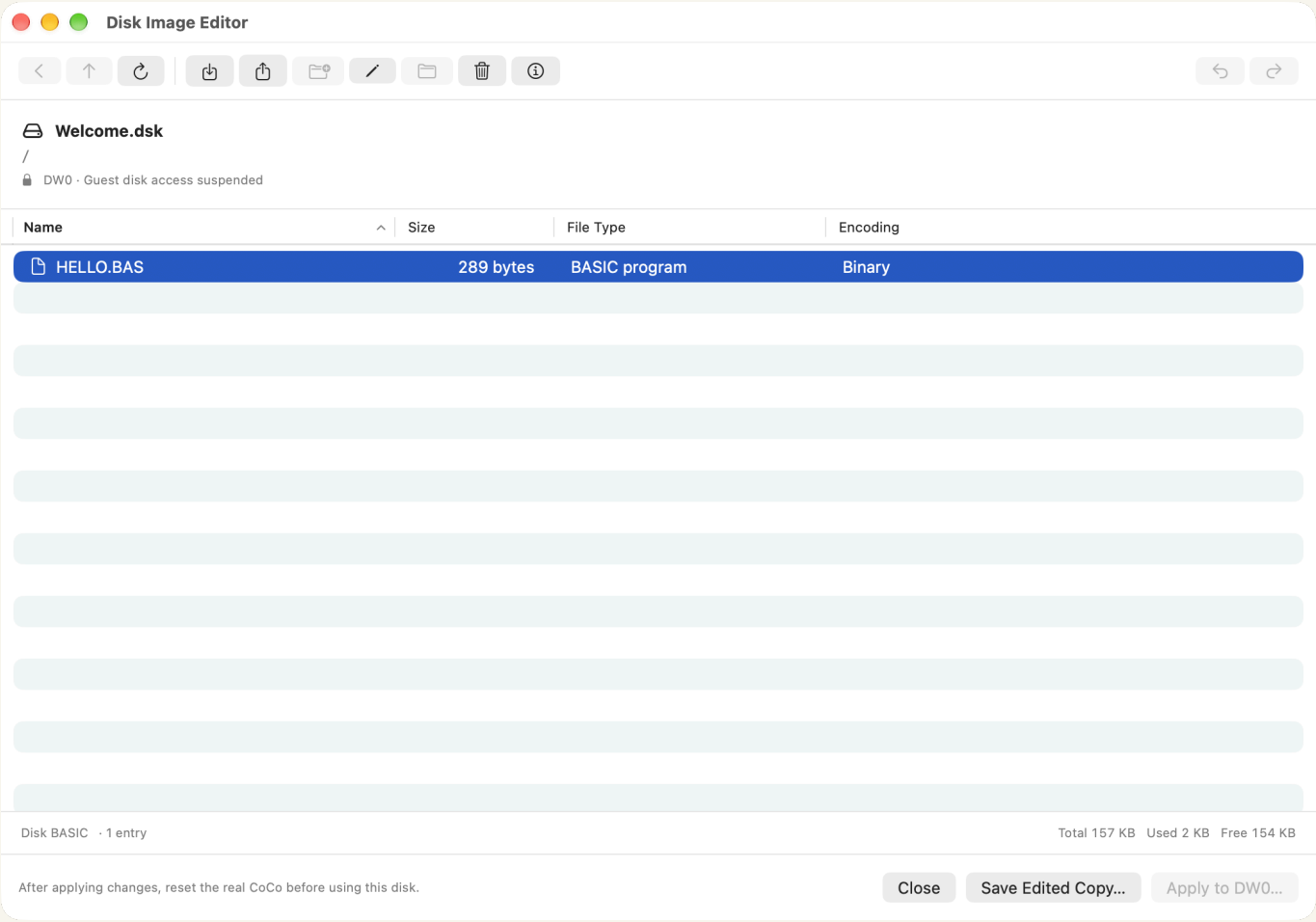


Figure 8: The Disk Image Editor in DriveWire for VCC Plus, with file actions, disk space and the DW0 apply handoff. This screen is available only when a matching VCC Plus version is installed.

1. Finish disk activity and save any running program on the real CoCo.
2. Open the disk's System bay, or use **Full** → **Virtual Disks**, and choose **Edit...** beside the inserted disk.
3. Read the explanation and choose **Open Editor**. DriveWire makes that drive unavailable to the guest while the private working copy is open.
4. Edit the files, then choose **Save Edited Copy...** for a separate image, or **Apply to DWn...** → **Apply Disk Changes** to save and serve the edited bytes.
5. After applying, **reset the real CoCo before using the disk again**. Applying does not remotely reset it or preserve its running program across a reset.

The editor is bound to the served disk. It does not offer a general Open command to change targets. **Total**, **Used** and **Free** describe the selected filesystem; a **Volume** selector appears when an image has multiple supported volumes. Other volumes and supplementary bytes are preserved.

Everyday task	Controls
Browse OS-9 folders	Double-click a folder; use **Back** or **Up** to return.
Import or export files	Use **Import** and **Export**, or drag files between the table and Finder. Review replacement confirmations.
Organize files	Use **Rename** and **Delete**. On OS-9, use **New Folder** and **Move To...**, or drag regular files onto a folder.

Everyday task	Controls
Inspect an entry	Select one entry and choose **Info**. OS-9 File Information also edits ownership and access permissions.
Correct an edit	Use **Undo** or **Redo** while the editor remains open.

Changes remain private until applied or saved. Closing with unapplied edits lets you **Keep Editing** or **Discard Changes**. Discarding preserves the original served bytes and any separate copy or exported file you already saved. Saving an edited copy does not apply it to the served drive; close the editor when finished to release guest access.

If the source changed outside the editor, is read-only, or is also referenced by another served drive, use **Save Edited Copy...** instead of overwriting it. Wait for a complete guest transaction before opening or applying. This editor changes files in supported raw Disk BASIC, HDB-DOS and OS-9 images; it does not format, repair or interpret every region of an image.

For detailed file operations, OS-9 moves and permissions, supported layouts and limits, read the Disk Image Editor in the VCC Plus User's Handbook. DriveWire uses those same tools with its own guest-access lock and apply/reset workflow described above.

Browse the disk-only library

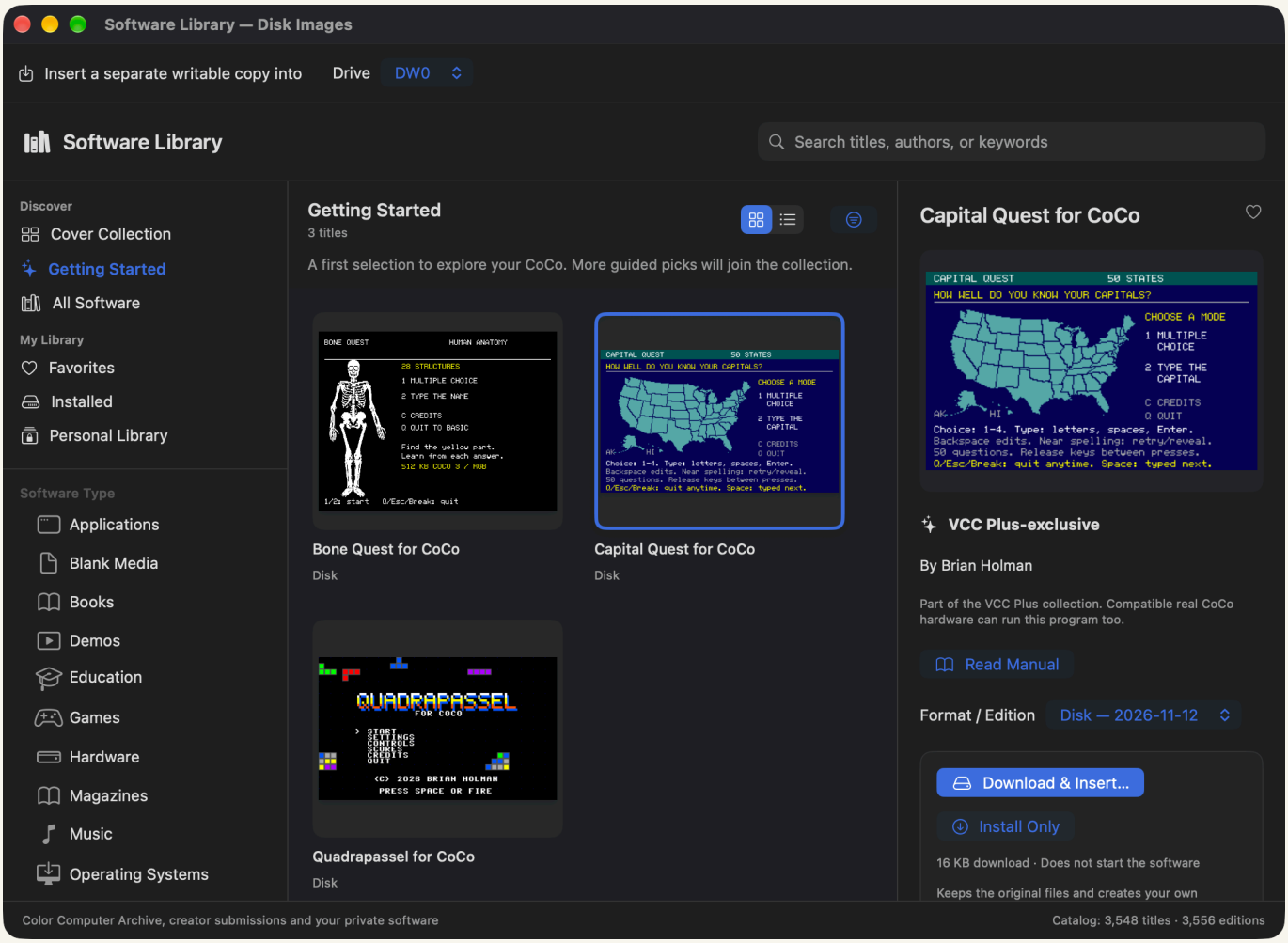


Figure 9: Software Library — Disk Images in DriveWire for VCC Plus, with Getting Started titles and the DW0 destination selector. This screen is available only when a matching VCC Plus version is installed.

1. Click the software shelf in System, or choose **Software Library...** in Full's **Virtual Disks** panel.

2. Select the destination **DW0–DW3** above the library.
3. Find a title and suitable disk edition. Read its loading instructions and hardware, operating-system and processor requirements.
4. Choose **Download & Insert…** for a new installation or **Insert Disk…** for an installed release. **Install Only** installs without changing a DW slot.
5. Wait for the insertion confirmation. Reset or return the CoCo to BASIC as instructed, then follow the title's guest loading instructions.

The library presents disk editions, including eligible disks in mixed-format titles. Cassette-only and cartridge-only releases are not offered as DriveWire media. Inserting does not run software or change the real CoCo's RAM or CPU; a disk result does not guarantee compatibility with every guest configuration.

VCC Plus supplies verified downloads, installation receipts, artwork and manuals. DriveWire keeps no second catalog. Verified originals remain read-only; DriveWire inserts a **separate writable copy** and retains recovery bytes before replacing an occupied slot. Color Computer Archive attribution and upstream notices remain with the content.

Your **Personal Library** disk entries are available through the same local connection. Search and standard categories include them first alphabetically, with lock/**Personal** badges. Add or edit imports and cover images in VCC Plus; DriveWire shows supported disk images and their supporting manuals/artwork. Favorites and selected editions are shared. After changing entries or choices in VCC Plus, close and reopen DriveWire's Software Library for a fresh view. Inserting personal software creates another independent writable copy; later DriveWire writes never overwrite VCC Plus's working disk. Save and explicitly open or import the changed copy when you want to use it in VCC Plus.

For browsing, categories, favorites, edition choices, supporting documents and installation management, see the Software Library in the VCC Plus User's Handbook.

Send a copy from VCC Plus

1. Open DriveWire and connect its receiving **Serial** session. Finish guest disk activity. Network sessions are not transfer destinations.
2. In VCC Plus, choose **Media → Floppy Disks…**, then the source disk's **Actions → Send a Copy to DriveWire…**.
3. Select the receiving session and **DW0–DW3** slot. Review its current filename, then choose **Send Copy**.
4. On the first copy, DriveWire asks **Allow disk copies from VCC Plus?** Choose **Allow for This Connection** or **Decline**.
5. Wait for the received confirmation. Return the real CoCo to BASIC or reset before using changed media to avoid old filesystem information.

Permission ends when that serial connection disconnects or its window closes. A changed destination, open editor, disconnected session or incomplete guest transaction stops insertion rather than replacing a different target.

The source copy includes current emulated disk bytes and unsaved guest writes. Sending does not pause or restart VCC Plus, change its save mode or clear its unsaved-changes indication. Raw sector-aligned images up to 16 MiB can be sent; encoded track images require a suitable raw copy. Both apps keep independent mounted disks; later writes do not synchronize.

Recover a replaced receiving disk

Choose **File → Show Received Disks…** in DriveWire. Each received copy has its own folder. When a copy replaced an occupied slot, **Recovery → Previous Disk.dsk** contains the displaced disk's current in-memory bytes, including guest changes.

To restore it, finish guest access and deliberately insert a working copy of that recovery image into the intended slot. Reset or return the CoCo to BASIC before using changed media. Another transfer or a disconnected session does not delete retained copies. This recovery is separate from the automatic Recovery copies made when closing DriveWire.

Resolve companion-tool problems

What you see	What to do
Editor or Library unavailable	Follow the matching-version and discovery check above. Choose the installed app with **Locate VCC Plus...**.
No receiving session	Open DriveWire's window and connect Serial. A waiting, disconnected or Network session is ineligible.
Target disk changed	Refresh the destination list, review its new contents and send again.
Guest or transfer busy	Let its current operation finish, then retry.
Apply unavailable or source changed	Use **Save Edited Copy...** and deliberately assign that copy afterward.
Guest sees an old directory	Follow its reset or remount procedure; changing host bytes cannot clear the guest's cached filesystem state.

A declined or canceled transfer has not inserted a disk. Check the receiving confirmation and slot filename before using it from the CoCo.

Windows, printer and MIDI

Full provides **Virtual Windows**, **Printer** and **MIDI** panels for guest software that uses DriveWire's additional services. In System, click the printer or keyboard to open the same Printer or MIDI panel. **Devices → Virtual Windows** opens that page in Full. Switching pages keeps the current connection and guest session. See System and Full views.

These are host services, not replacements for the CoCo's display, printer port or sound hardware. Opening a panel does not make an ordinary guest program use it. The guest needs the appropriate DriveWire driver or application support.

Virtual Windows

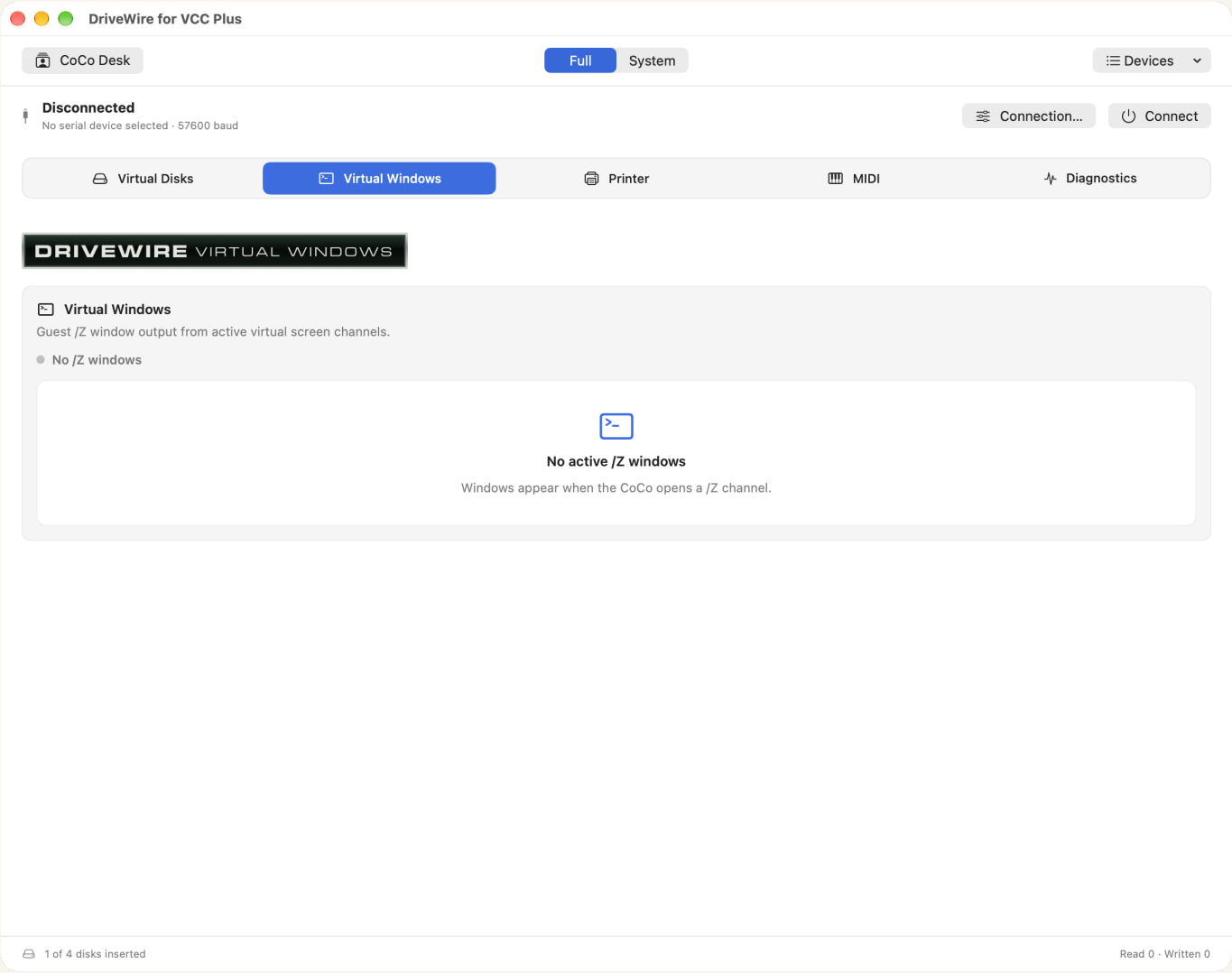


Figure 10: Virtual Windows before the guest opens a /Z window. This idle message is expected until supported guest software uses the service.

Virtual Windows displays text sent to guest `/Z` window channels. When no window has been opened, the panel says **No active /Z windows**. This is an expected idle state, not a failed serial connection. A BASIC program printing to the CoCo's own screen will not automatically appear here.

Control or display	How to use it
Window buttons	Select the guest window you want to read or type into. Each button identifies its window and shows whether its channel is open.
Terminal	Read the selected window's output. Click inside it before typing to the guest. The view follows new output and provides vertical scrolling.
Clear	Clear the selected window's displayed text. It does not close the channel or restart the guest.

To use an interactive window:

1. Connect the guest and start software that opens a `/Z` window.
2. Open **Virtual Windows** and select that window if more than one is listed.
3. Click the terminal, then type the response expected by the guest program.

4. Press **Return** to send a carriage return. **Delete** sends Backspace; **Tab** and **Escape** send their corresponding control characters.

Printable ASCII characters are supported for keyboard input. This is a simple text terminal, rather than a full-screen terminal emulator or a Unicode editor. Whether typed characters are echoed, edited or acted on depends on the guest. Input appears in the terminal only if the guest echoes it. The terminal keeps a bounded recent text history; use the guest's own file-saving facilities for a permanent record. Clearing the display is different from clearing guest input.

Printer output

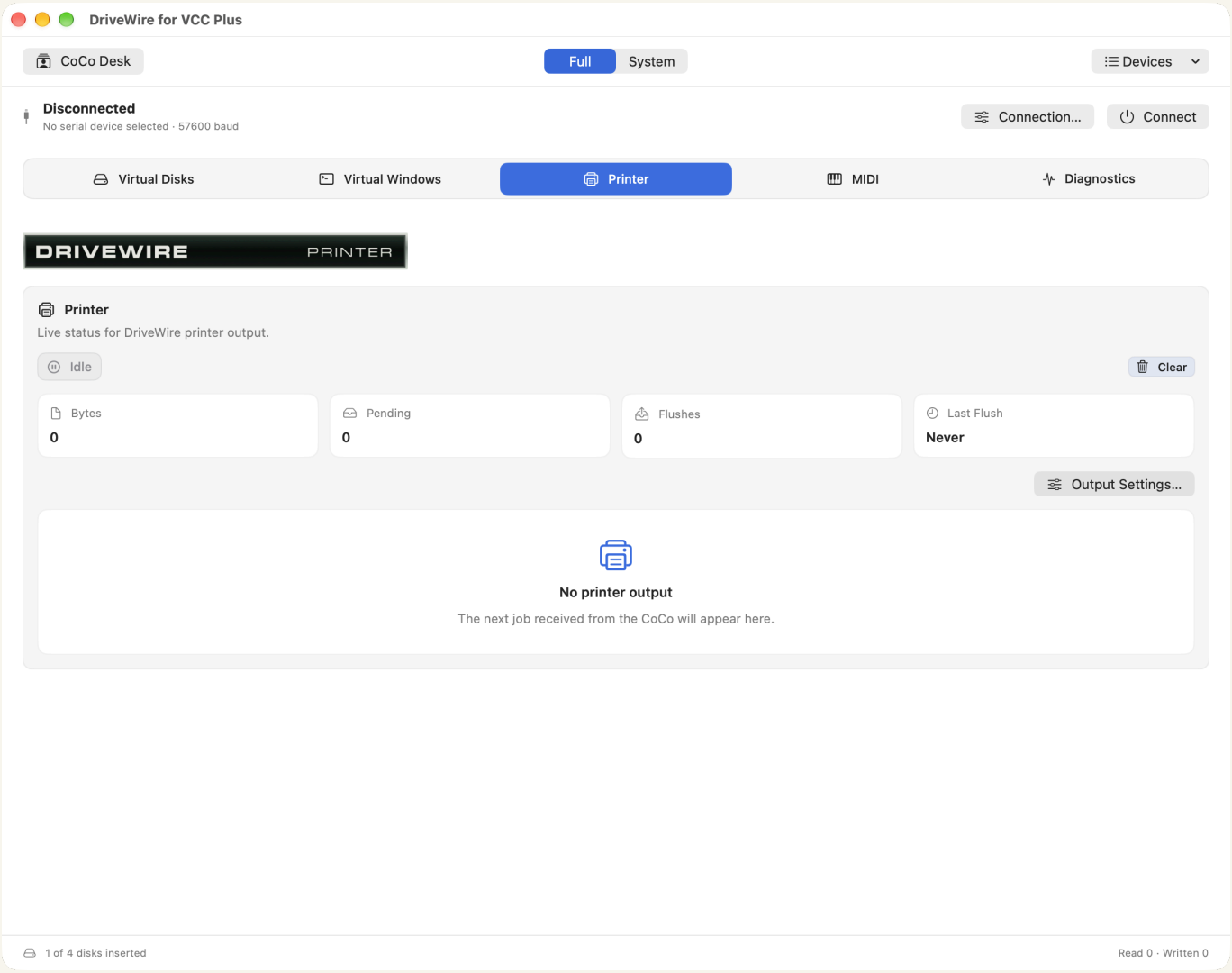


Figure 11: The Printer panel before a guest job arrives, with Clear, output counters and Output Settings.

Printer shows jobs received through DriveWire's guest printer service. It can preview output, save jobs to files, send them to a macOS printer, or save and print the same job. No output means that no job has arrived; it is not by itself a connection error.

Display or control	Meaning
State	**Idle** means no bytes are waiting; **Receiving** means a job is buffered. An output error is shown with its explanation.
Bytes	Total guest printer bytes received since the printer state was cleared.

Display or control	Meaning
Pending	Bytes waiting for the guest to finish its current job.
Flushes	Number of nonempty jobs the guest has completed.
Last Flush	Time of the latest guest flush, or **Never** before one occurs.
Preview	A readable view of pending output, or the most recent completed job when the pending buffer is empty.
Show Last Job	Reveal the most recently saved job in Finder. This button appears when a saved file is known.
Output Settings…	Open Settings; choose **Printer** to configure the destinations and format.
Clear	Discard the buffered job and preview, reset the counters and forget the panel's last-job references. Existing files already saved to disk remain intact.

The preview is a short text view, not a page-layout renderer. With the normal raw-byte backend, it shows up to the first 4,096 bytes and represents unsupported control or binary bytes with dots. The saved Raw job retains its original bytes; the preview does not determine the saved file's contents.

Save or print a job

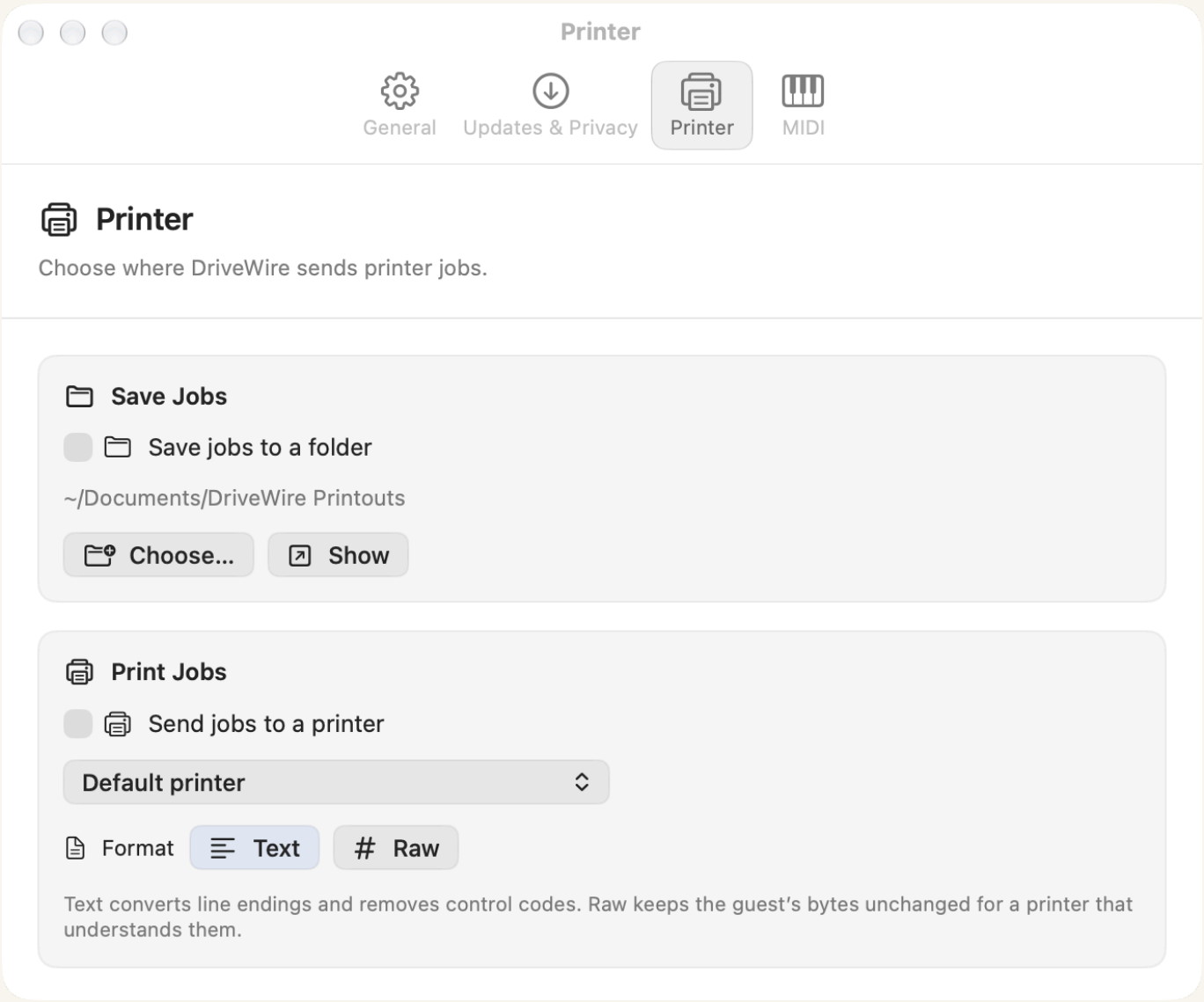


Figure 12: Printer settings with independent folder and physical-printer destinations and Text or Raw output.

Open **DriveWire for VCC Plus → Settings... → Printer** before sending the job. Printer preferences apply across personal profiles; they are not part of a disk image or a guest's printer configuration.

Setting	Result
Save jobs to a folder	Save a separate file when the guest closes or flushes its printer job. The initial folder is `~/Documents/DriveWire Printouts`.
Choose…	Choose or create a destination folder. Choosing a folder also enables saving jobs there.
Show	Open the configured folder in Finder, creating it if needed.
Send jobs to a printer	Submit each completed job to a macOS print queue. It can be enabled together with folder saving.
Printer	Use **Default printer** for the macOS default, or select an available named printer.
Text	Normalize CR, LF and CR/LF line endings and remove unsupported control codes. Saved jobs use `.txt`. This is the usual choice for readable listings and reports.

Setting	Result
Raw	Preserve the guest's bytes unchanged. Saved jobs use `.prn`. Use this when the receiving printer understands the guest's printer codes.

For a first job, enable folder saving and choose **Text**. Print a short listing from guest software configured for the DriveWire printer, then close or finish that guest job. **Pending** should drain when the flush arrives; use **Show Last Job** to inspect the resulting file. Files receive timestamped names, with a suffix when needed to avoid replacing an earlier job.

Receiving bytes and completing a job are separate steps. If **Pending** grows but no file appears, check that the guest actually closed or flushed its printer. The panel has no host-side Flush button. **Clear** discards pending output; it does not submit it. If both delivery options are off, the panel can still preview jobs, but it does not save or print them. Turning on delivery later does not resubmit a previously completed job.

For a physical printer, start with **Text** and a printer that already works from another Mac application. **Raw** is not a general converter from an old printer's control language to a modern printer's language. A successful submission to the Mac print queue is also different from confirmation that paper has emerged. Check the macOS print queue if the Printer panel reports a destination but nothing prints. Errors saving a folder file or submitting a print job appear in the panel and Activity Log.

MIDI output

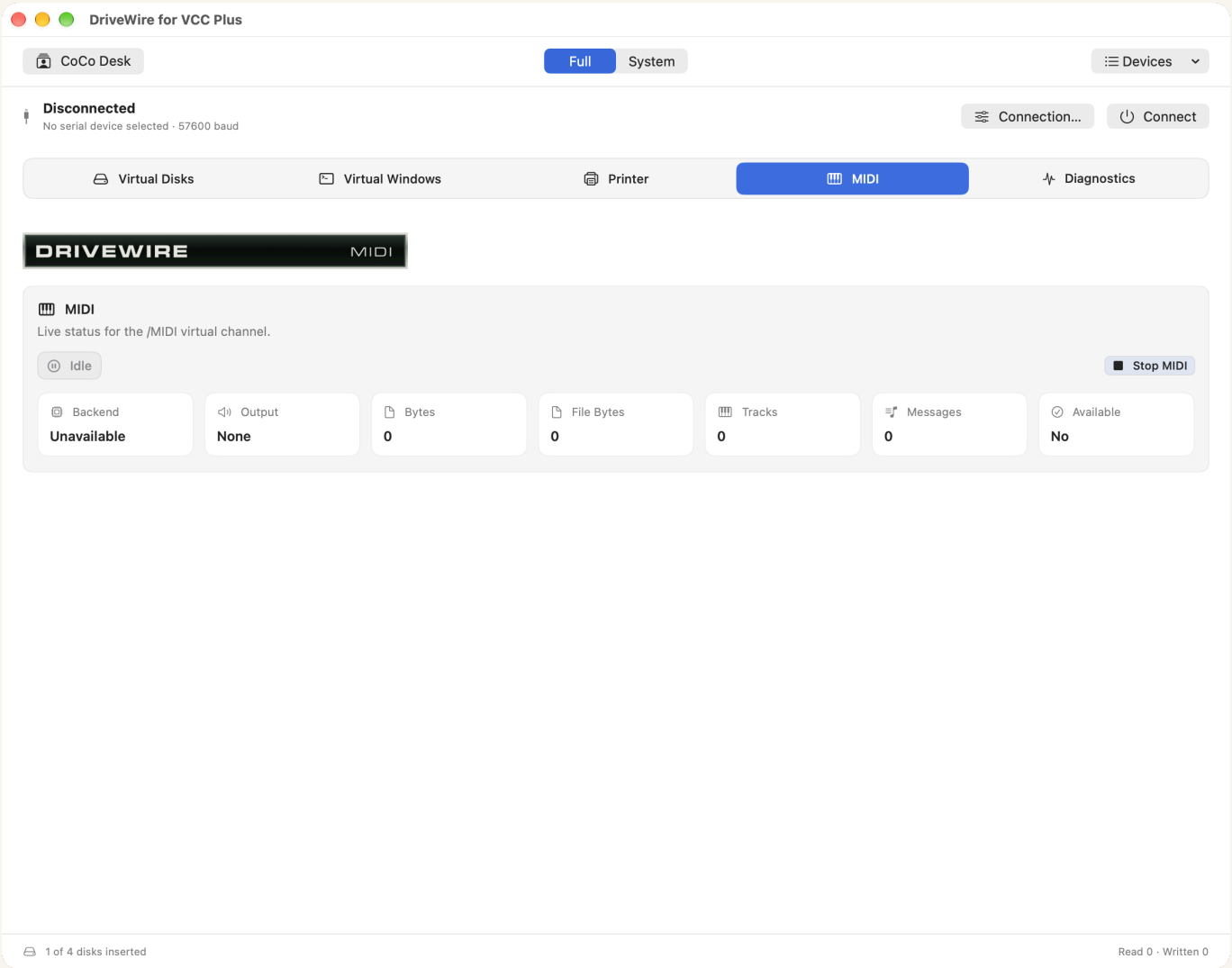


Figure 13: The MIDI panel before a connection supplies a MIDI backend. Counters show actual guest traffic and output availability.

Click the keyboard in System, or choose **MIDI** in Full, to monitor the guest `/MIDI` service. The illustrated keys are a way to open this panel, not a playable Mac synthesizer. Ordinary CoCo sound does not pass through it automatically.

Display or control	Meaning
State	Shows idle, receiving, raw MIDI, MIDI-file playback, stopped or error activity.
Backend	The Mac playback system available to this connection, such as **Built-in Synth + Core MIDI**.
Output	The selected synthesizer or MIDI destination.
Bytes	Guest MIDI bytes received.
File Bytes	Received MIDI-file bytes against the expected total when known. A question mark means the total is not yet known.
Tracks	Completed file tracks against the expected count when known. This is file-processing progress, not a playlist.
Messages	Output messages sent through the backend. This is not a count of audible notes or proof of successful playback.
Available	Whether the MIDI backend is available.
Stop MIDI	Stop current playback, clear pending MIDI stream state and send all-notes-off to the selected output.

Backend details and any last error appear below the counters. A quiet panel is normal when the guest does not use MIDI. To investigate silence, first check whether **Bytes** or **Messages** advances; then check **Available**, the selected output, Mac audio volume and, for an external destination, its own setup.

Choose a MIDI destination

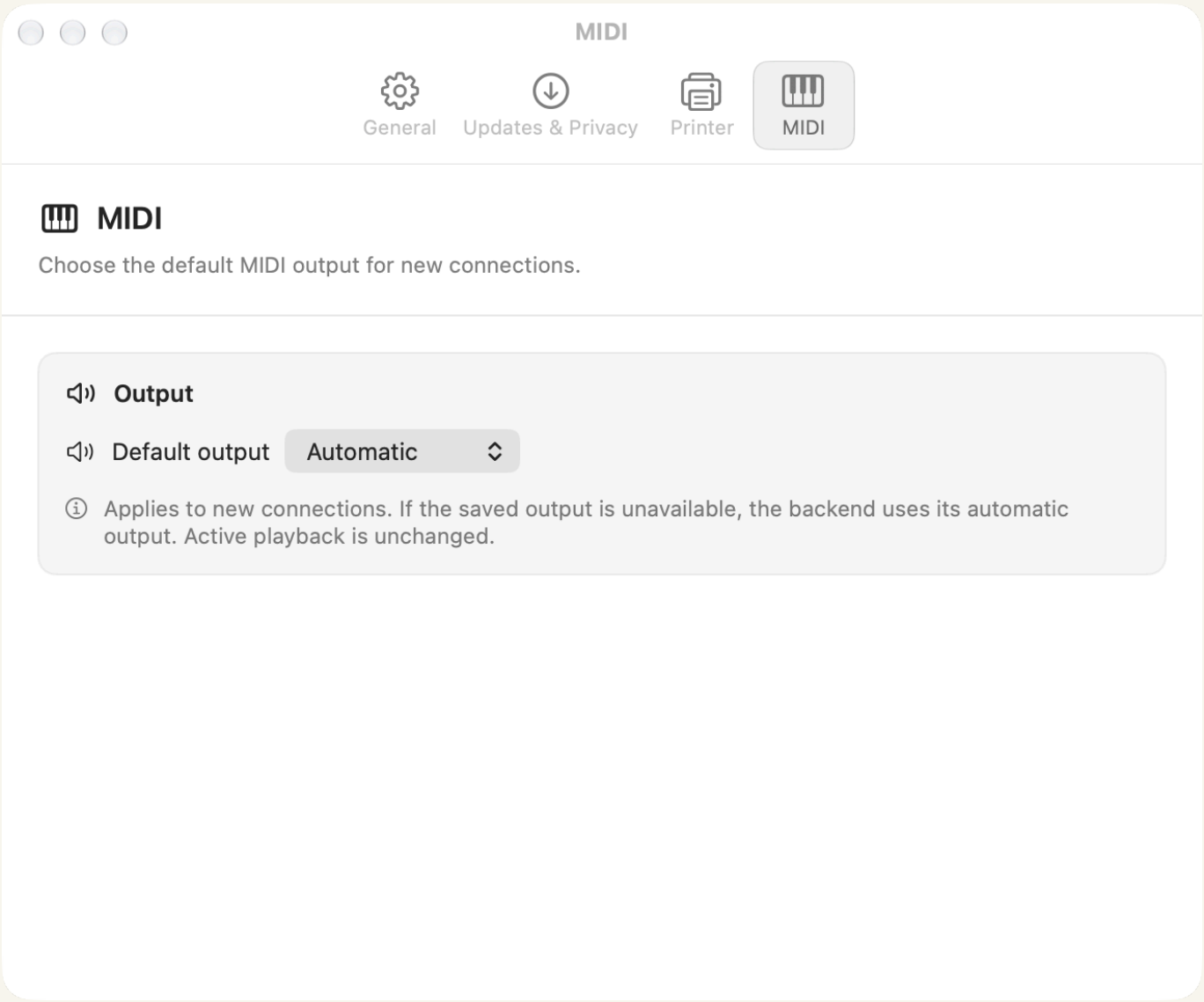


Figure 14: MIDI settings choose the default output without redirecting active playback.

1. Finish guest work and save any running program before changing the setup. Review guest disk recovery so that useful disk changes are preserved when you quit.
2. Open **Settings...** → **MIDI** and select **Automatic**, **Built-in Synth**, or an available external MIDI destination in **Default output**.
3. Quit DriveWire normally, let it preserve changed disk images, then reopen it. Disconnecting and reconnecting alone does not apply the new default to an existing session.
4. Check the restored profile and connection. Reconnect if needed, and confirm **Output** in the MIDI panel shows the destination you intended.
5. Start the guest's MIDI-capable application and watch the panel as it sends raw MIDI or a Standard MIDI File. Use **Stop MIDI** if playback needs to stop.

Automatic uses the backend's available default. On a Mac with the built-in synth available, this gives a playback option without an external MIDI device. A saved destination that is not currently available remains listed as unavailable; the connection falls back to automatic output. Changing the preference does not redirect active playback. Plan the change between guest sessions, when you can safely quit and reopen DriveWire.

The guest still controls what it sends and when it completes its stream. The panel does not browse for a MIDI file or start music on the guest's behalf.

Readability

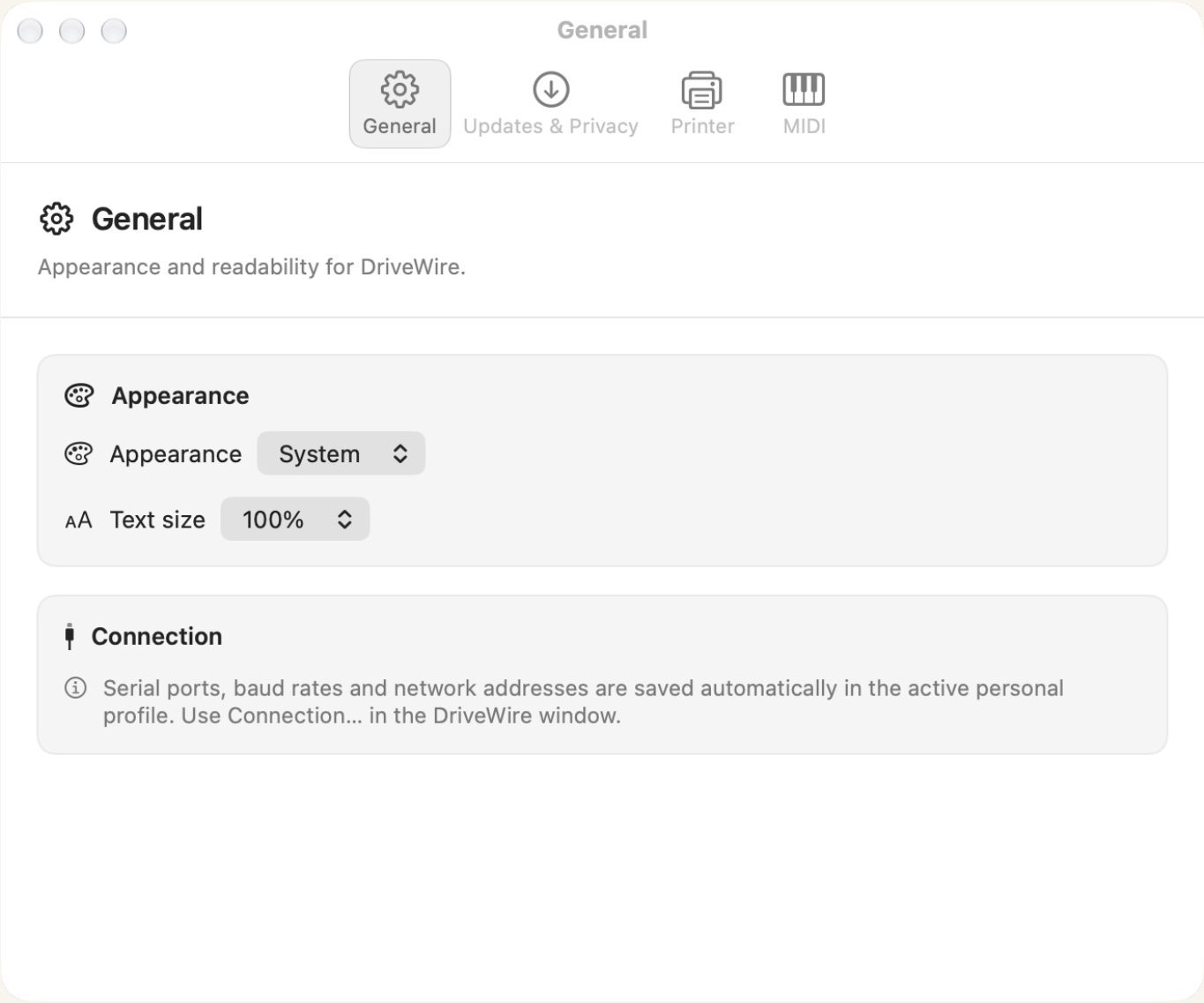


Figure 15: General settings for app appearance and text size. Connection preferences belong to the active personal profile.

Open **Settings...** → **General** for app-wide appearance and reading size. These preferences apply to both System and Full views, independently of the selected personal profile.

Setting or menu command	Effect
Appearance: System	Follow the Mac's appearance.
Appearance: Light or Dark	Use that appearance for DriveWire.
Text size	Choose 100%, 115%, 130%, 145%, 160% or 180%.
View → Bigger Text / Smaller Text	Move to the next available text-size step.
View → Actual Size	Return to 100%.

Larger text and smaller windows may require scrolling. The General pane also explains that serial ports, baud rates and network addresses belong to the active personal profile: edit those with **Connection...** in the main window. Opening Settings, changing pages or switching presentation does not restart the guest.

Diagnostics and troubleshooting

Diagnostics groups the Runtime Snapshot, eight Virtual Channels and Activity Log for the selected personal profile's host. In System, choose **Devices → Diagnostics** to open the same page in Full. This changes the presentation without restarting the connection or guest session.

Start with the visible connection status and inserted disk filename. Then use Diagnostics to answer a specific question: did a request arrive, which virtual drive did it address, and did the host report a problem? A busy log alone does not show that a guest program ran correctly.

Runtime Snapshot

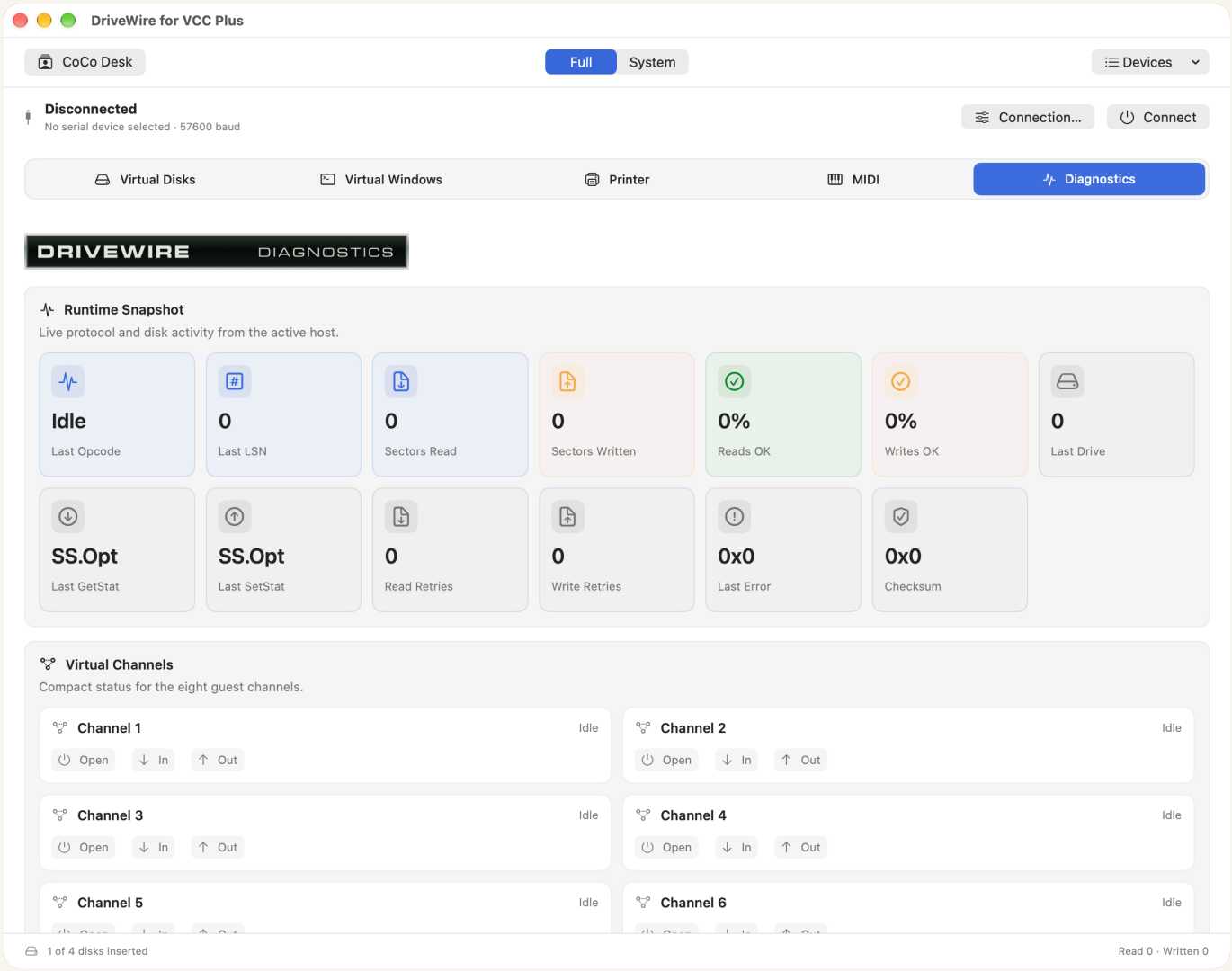


Figure 16: Diagnostics groups the Runtime Snapshot, Virtual Channels and Activity Log. This sample profile has no guest traffic yet.

The cards summarize protocol and disk activity from the active host. They are observations, rather than controls: clicking a value does not issue a guest command, repair a disk or retry an operation.

Card	What it tells you
Last Opcode	The most recently recorded DriveWire operation, displayed by name.
Last LSN	The last logical sector number addressed. This is a sector address, not a filename or a track number.

Card	What it tells you
Sectors Read / Sectors Written	Recorded sector-access attempts. Compare before and after one guest action to see whether it produced disk traffic; a count does not confirm success.
Reads OK / Writes OK	Retry-based indicators. These are not measured success rates and cannot confirm that a disk operation succeeded.
Last Drive	The virtual drive number addressed by the last recorded disk request. Check this against the image you intended the guest to use.
Last GetStat / Last SetStat	The latest status-query and status-setting codes, shown by name where recognized.
Read Retries / Write Retries	Recorded retry requests. Repeated increases are useful context when investigating a connection or transfer problem.
Last Error	Currently not populated from disk-operation results. Do not use this value to determine whether an operation succeeded.
Checksum	Currently not populated with transfer checksums. This field does not verify disk contents or transfer integrity.

For example, note **Sectors Read** and **Last Drive**, ask the guest for a disk directory, then compare them. If reads advance against a different drive, check the guest mapping and image assignment. If they do not advance, investigate the connection and guest's DriveWire setup before changing the image.

An increasing counter means a guest request reached the relevant disk-access path. It does not establish that the transfer succeeded, that a program ran correctly or that all work was saved. Read the guest's result and the corresponding **Activity Log** entries for actual operation errors. A zero **Last Error** or a high **Reads OK / Writes OK** value is not confirmation of success.

Virtual Channels

The eight channel cards show the state of the host's virtual serial services. Their indicators follow channel state and traffic; opening Diagnostics does not open a guest channel.

Indicator or label	Meaning
Open	The channel is currently open.
In	Incoming traffic is active.
Out	Outgoing traffic is active.
TCP	The channel is backed by a TCP connection.
A byte count such as 12 B	Data is pending on the channel.
Idle	The channel is not open and has no more specific activity to show.

The indicator labels remain useful without relying on color. A channel can be open while no bytes are moving; idle channels are expected when guest software is not using those services. If a `/Z` terminal is waiting for a response, compare its window state with the corresponding channel activity. See Windows, printer and MIDI for the service panels.

Activity Log

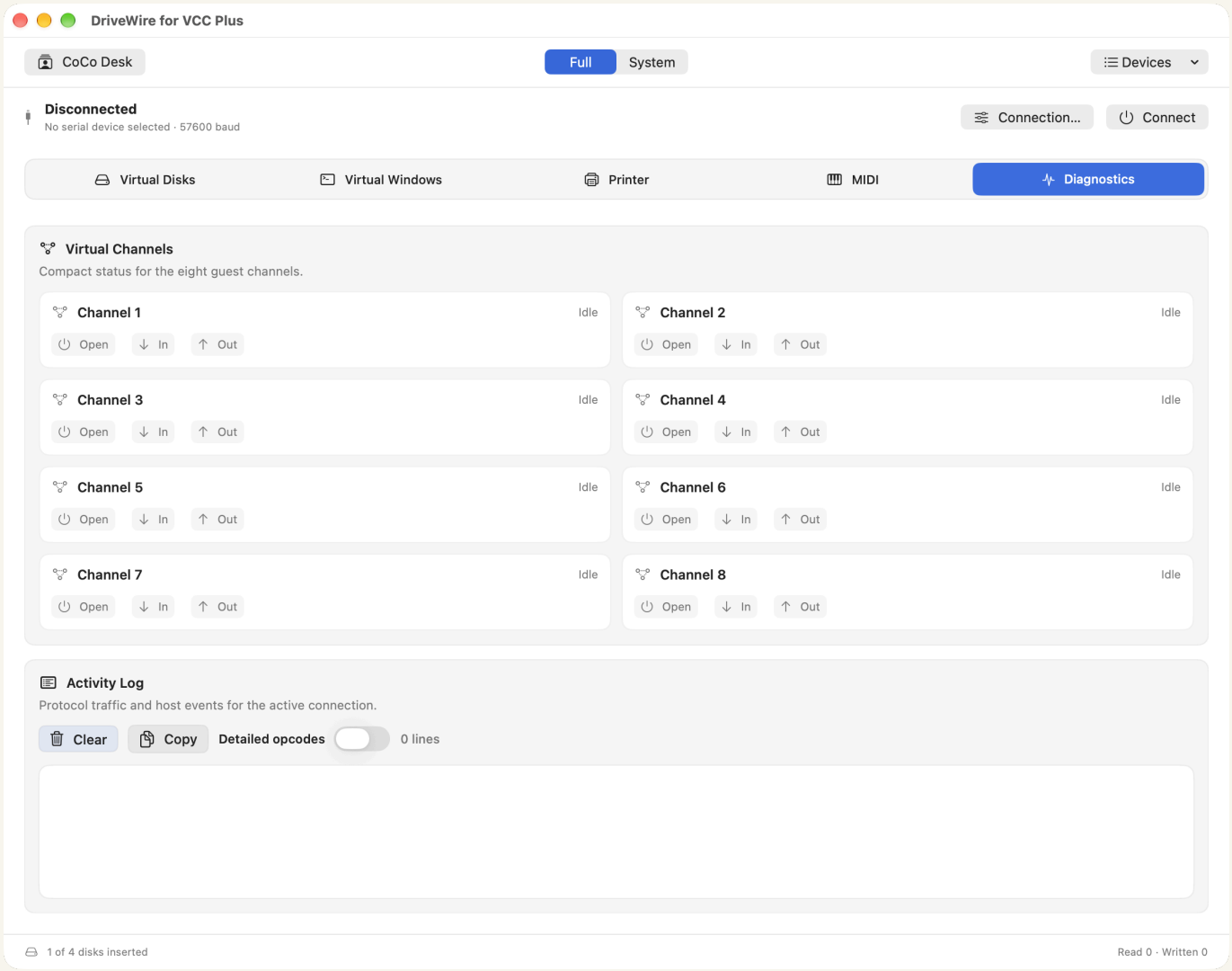


Figure 17: Scroll down in Diagnostics to reach all eight Virtual Channels and the Activity Log, including Copy, Clear and Detailed opcodes.

The Activity Log collects protocol events and host messages, including connection, disk and service errors. New entries scroll into view. The line count describes the current retained log text.

Control	Effect
Copy	Copy the retained Activity Log text to the Mac clipboard, including lines outside the visible scroll area.
Clear	Empty the Activity Log. It does not erase disk files, reconnect the host or reset the Runtime Snapshot counters.
Detailed opcodes	Include frequent READ, WRITE, GETSTAT and SETSTAT traffic. Leave it off for ordinary use to avoid unnecessary logging overhead.

For a useful short diagnostic record:

1. Note the guest ROM or operating system, selected profile, connection type, inserted image and exact action that fails.
2. Copy an existing log first if it contains evidence you need. Then use **Clear** to make the next attempt easier to identify.

3. Enable **Detailed opcodes** if individual disk or status requests matter.
4. Reproduce the problem once and compare the Runtime Snapshot with the log.
5. Turn detailed logging off, then **Copy** the record for review.

Review the copied text for personal filenames, paths and other private details before sharing it. Avoid leaving detailed logging enabled for a long gameplay or disk-transfer session just to collect more lines.

No directory or a disk error

1. Confirm that the physical CoCo has a DriveWire-capable ROM or operating system and that it is using the intended virtual drive mapping. Standard guest commands depend on that ROM or operating system.
2. Confirm the cable and serial adapter. Select the actual adapter in **Connection...** and match the guest's baud rate. The tested CoCo 3 HDB-DOS 1.4 DW3 setup uses 115200 baud; that is not a universal setting for all guests.
3. Check whether another host already owns the adapter. Disconnect it before connecting this app. Reconnect a removed adapter if the bar says it is waiting.
4. Verify the intended image is inserted and readable. A file that merely ends in `.dsk` is not necessarily an appropriate filesystem or boot disk.
5. Request the directory again and inspect the corresponding read activity, drive number and log. Do not format or reload a valuable disk merely to clear an error message.

For network sessions, check the configured host and port and whether the other endpoint is providing the expected DriveWire connection. A reachable network address is not sufficient if the application at that address speaks a different protocol.

Symptom	Next check
Connected, but no reads after the guest requests a directory	Confirm the guest's DriveWire ROM, drive mapping and connection settings; compare the log before changing media.
Reads arrive against the wrong drive	Match **Last Drive** to the guest's virtual-drive selection and the image inserted in that slot.
Image cannot be opened or appears missing after relaunch	Inspect the image path in Disk Details and confirm the containing volume is available. Profile storage and disk contents are separate.
Guest changes are at risk during a profile change or close	Follow the recovery controls described in Disks and personal profiles. Preserve a copy before replacing or reloading media.
No Virtual Windows, printer or MIDI activity	Confirm the guest actually uses that service. A working disk connection does not make ordinary screen, printer or sound output use it.
The snapshot looks normal, but the guest reports a disk error	Reproduce one operation and read its new Activity Log entries. Last Error and Checksum are not populated with operation results; counters and retry indicators do not establish success.

Find the manual from either view

In System, click the desktop **Help** button or choose **Help** from **Devices** to open the manual home page. The contents include System and Full views, with a guide to the illustrated device targets and their native controls. The same manual covers Full, personal profiles, services and the optional shared tools.

The bundled pages remain usable offline. Their version follows the coordinated product release; the app's separate build number identifies a particular build within that release. Opening Help does not change the active host or mounted disks. Guest-specific commands belong to the guest's ROM or operating-system manual rather than to this Mac interface guide.

Help, source and credits

Open **About DriveWire for VCC Plus → Credits and Notices…** for the full contributor, artwork, trademark and component notices.

For project history and protocol reference, see DrPitre/DriveWire and the DriveWire Specification.

Updates & Privacy

Choose **DriveWire for VCC Plus → Check for Updates…** to check manually, or open **Updates & Privacy…** in that menu. The same controls appear in **Settings… → Updates & Privacy**. The pane shows the installed product version and build number, followed by the current check status.

Check and download

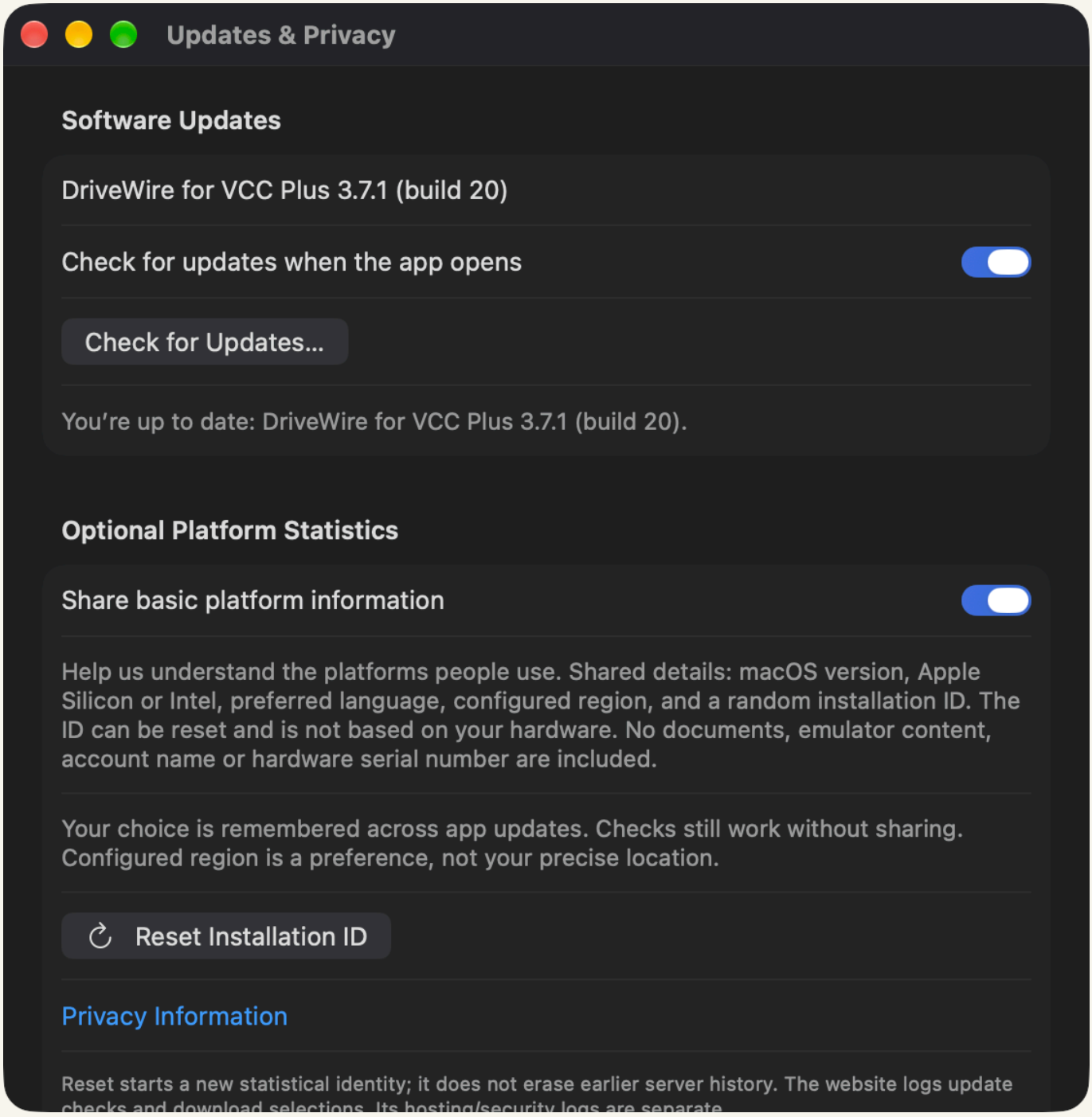


Figure 18: Updates & Privacy identifies DriveWire 3.7.1 build 20, with update controls and optional basic platform sharing.

A normal launch checks the website in the background when automatic checking is enabled. The comparison uses official published downloads: a higher product version, or a higher build within the same version, can be offered. A local experimental build does not become a published update merely because it exists.

When a compatible newer release is available, choose **Download DMG** to open its download URL in your browser, or **Later** to continue. The privacy pane also provides a download button for an available release. Downloading does not replace the running application, close sessions or install anything automatically. Finish your work, then install the downloaded application when ready.

Control or result	What it means
Check for updates when the app opens	Enable or disable automatic launch checks. Manual checking remains available.
Check for Updates…	Start a manual check; a progress indicator appears while it is in progress.
Up-to-date result	The published download is not newer than the installed version and build.
Newer macOS required	The latest published release cannot run on this Mac's current macOS version.
Could not check	The check did not complete. Retry later; the app remains usable offline.

Automatic check failures do not interrupt ordinary use with an error alert. Manual checks report the result. Installing a newer version is separate from checking for or selecting its download.

Choose whether to share platform statistics

At the first check, **Share** and **Don't Share** let you decide whether to help us understand the platforms people use. Either choice is remembered across app updates. Update checks and downloads work when sharing is declined.

Optional shared information is limited to:

- macOS major and minor version;
- Apple Silicon or Intel architecture;
- preferred language and configured region;
- a random, resettable installation ID.

The installation ID is not derived from hardware. Configured region is a Mac preference, not precise location. Documents, CoCo content, account names, hardware serial numbers and file paths are not included in those statistics.

Use **Share basic platform information** in the privacy pane to change the choice. **Reset Installation ID** is enabled while sharing; it starts a new statistical identity for future shared checks without erasing earlier server history. **Privacy Information** opens the website's privacy explanation. VCC Plus and DriveWire keep separate sharing choices and random installation IDs.

The website records update checks and download selections; selecting a download does not prove a completed download or installation. Hosting and security logs are separate from optional platform statistics.

Credits and notices

DriveWire for VCC Plus is based on DriveWire by Boisy Pitre and its contributors. Mac application design by Brian Holman · Sponsored by Dezota LLC.

The shared disk editor and Software Library are supplied by VCC Plus, with the original VCC, ToolShed and Color Computer Archive acknowledgments retained. For complete contributor credits, artwork terms and third-party license notices, open About DriveWire for VCC Plus → Credits and Notices… in the app.