



RJ AUTONOMOUS

Powerpack Replicator

Installation and User Guide

USB Image Replicator for Windows x64

VERSION 0.1.12

SEPTEMBER 2026

Create one to five verified Windows deployment USB drives from a known master.

IMPORTANT: Every selected destination USB is permanently erased.

[START HERE](#)

Quick start

Use this page when the workstation has already been prepared. New users should read the safety and installation pages before the first hardware run.

Safety first

Powerpack never erases the selected source, but every selected destination is erased. Confirm each physical disk number, model, serial number, and capacity before authorizing a run.

1

Download and extract

Extract the complete ZIP package to a normal folder. Do not run the installer from inside the ZIP.

2

Install and open

Double-click the Powerpack Setup executable, complete installation, then open the new desktop shortcut and approve the Windows User Account Control prompt.

3

Activate

Enter the license key supplied separately by RJ Autonomous. Activation is saved for this Windows workstation.

4

Connect the USB drives

Attach one known-good master and one to five destination USB drives. Prefer direct USB 3.x ports or a powered USB 3.x hub.

5

Confirm source and destinations

Select the master, review its partition map, then select only the destination drives that may be erased.

6

Start the job

Keep **Smart Copy** selected, choose a verification mode, click Start Replication, review the erase list, and type **ERASE**.

7

Wait and verify

Do not remove drives while workers are active. When each destination says Verified and ready, review Verification or History and safely eject the USB.

Recommended first run

Clone one destination USB, verify the completed result, then boot-test that USB on a representative Dell system before starting a five-drive batch.

SETUP

Requirements and installation

Powerpack v0.1.12 includes a recommended Windows installer plus an installation-free portable edition. Neither edition requires Node.js.

Supported computer Windows 10 or Windows 11 x64 with an administrator account.	Master USB A known-good Windows deployment USB with a recognized GPT or MBR layout.
Destination USBs One to five USB drives. Each must be at least large enough for the master partition layout.	Connection USB 3.x ports are recommended. A powered hub is preferred for several simultaneous drives.

Recommended: install Powerpack

1

Save the package

Copy **Powerpack-Replicator-0.1.12-Windows-x64.zip** to the Windows workstation.

2

Unblock the download

Right-click the ZIP, choose Properties, select **Unblock** if Windows shows that option, then click Apply.

3

Extract and install

Choose Extract All, then double-click **Powerpack-Replicator-Setup-0.1.12-Windows-x64.exe** and follow the prompts.

4

Open the shortcut

The installer creates Desktop and Start Menu shortcuts named **Powerpack Replicator**. Double-click either shortcut and approve the administrator prompt.

Windows SmartScreen

This development build is not yet signed with a public code-signing certificate. Windows may show a SmartScreen warning. Verify that the file came from RJ Autonomous before choosing More info and Run anyway.

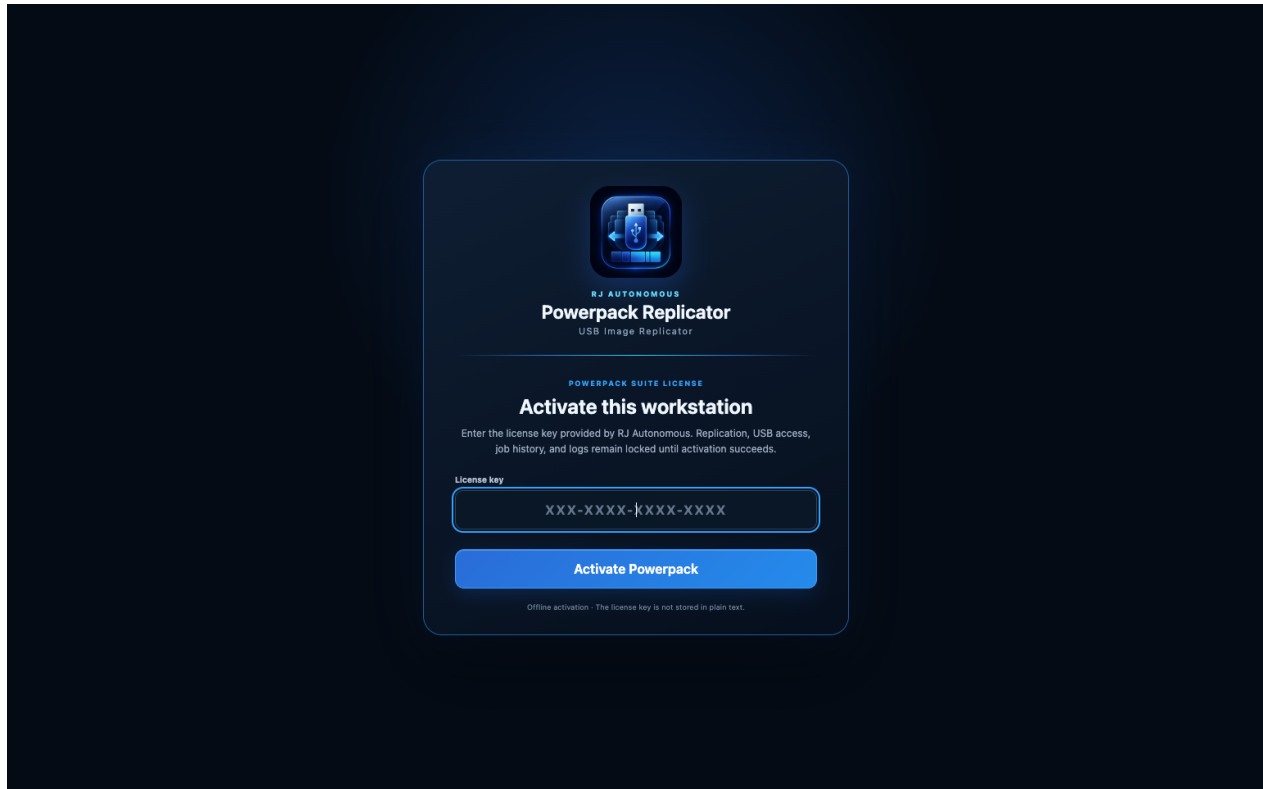
Portable option

Double-click **Powerpack-Replicator-Portable-0.1.12-Windows-x64.exe** and approve the administrator prompt. The portable edition does not create shortcuts or an uninstall entry; delete its executable to remove it.

LICENSE

Activate the workstation

The replication interface and privileged USB operations remain locked until the license is accepted.



Activation screen. The key shown in the field is only a format example; obtain the real key separately from RJ Autonomous.

1

Enter the key

Type or paste the key in the format **XXX-XXXX-XXXX-XXXX**. Hyphens are inserted automatically.

2

Activate

Click **Activate Powerpack**. A valid key opens the replication workspace immediately.

3

Keep the key private

The application stores a workstation-bound receipt rather than the readable key. Keep the original key in an approved secure location.

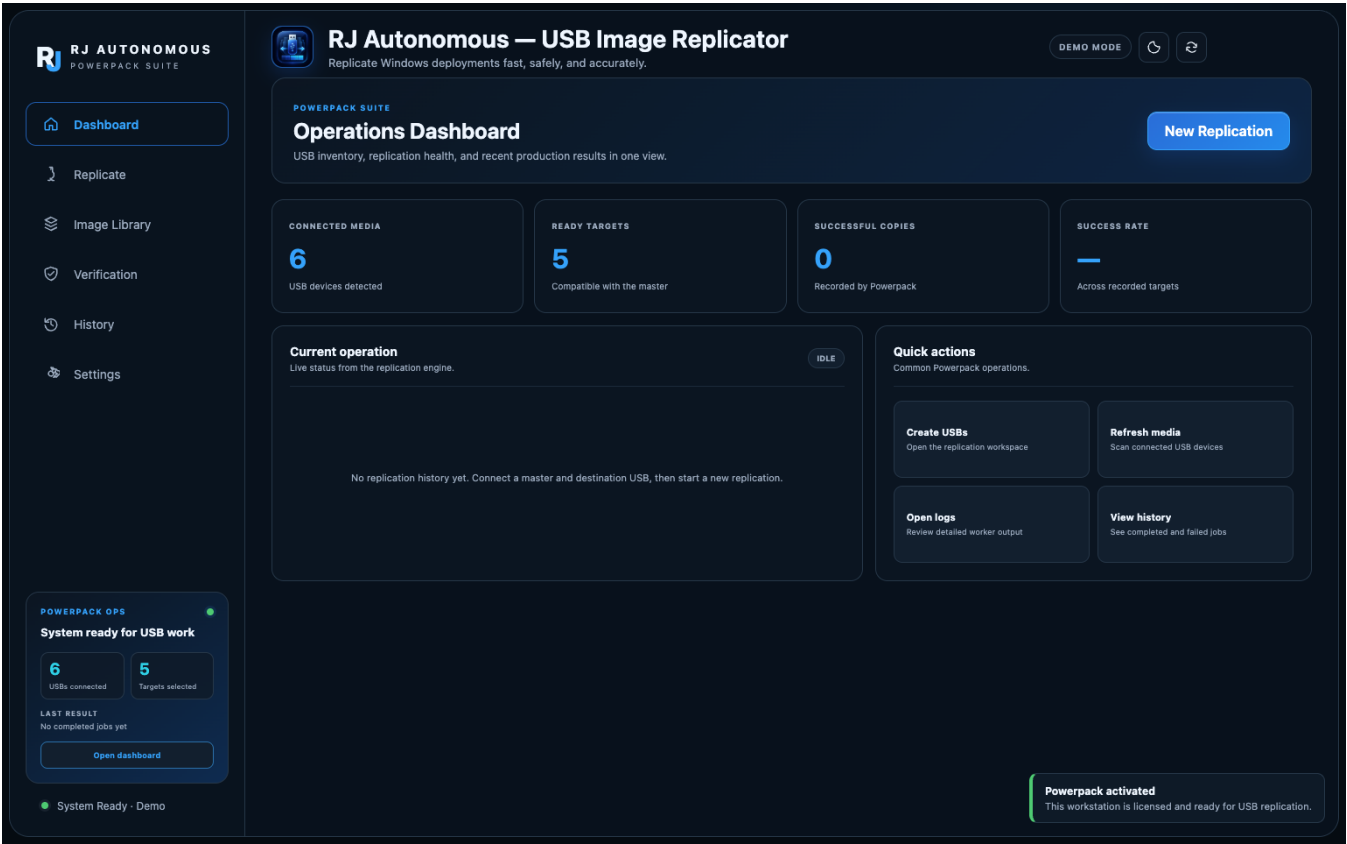
Activation changes

Changing the Windows computer name or the activating Windows account can require activation again. Use Settings to deactivate intentionally before retiring or reassigning a workstation.

ORIENTATION

Interface overview

The sidebar modules can be opened at any time. Opening a module during a run does not stop replication or unlock the selected disks.



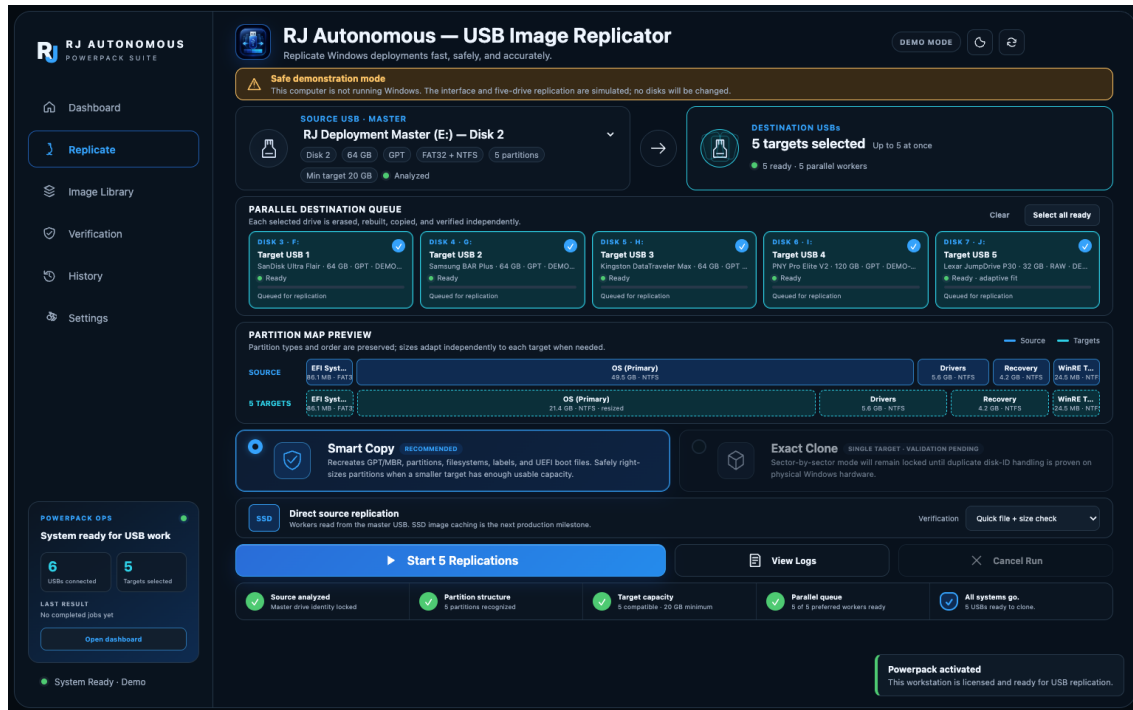
Operations Dashboard. Manual screenshots use safe demonstration media; on a production Windows workstation the top badge displays Windows and the app version.

Module	Purpose
Dashboard	Connected media, ready targets, success count, latest job, and quick actions.
Replicate	Select the master and destination drives, review partitions, and start a job.
Image Library	Review connected USB media and choose a different source master.
Verification	Review current or latest quick and SHA-256 verification results.
History	Review persistent completed, failed, cancelled, or interrupted jobs.
Settings	Choose appearance, verification defaults, parallel limit, logs, and license controls.

REPLICATION

Prepare and select the drives

Windows assigns a physical disk number to each USB device. Powerpack selects whole physical disks, not individual volume letters.



Replication workspace with one source and five independently selected targets.

About repeated volume names

A Dell master can have multiple IA_Dynamic partitions. They remain part of the same physical source USB and are all copied.

Source checklist

- Confirm the source disk number, label, hardware model, capacity, partition style, and partition count.
- Review the full partition map. Hidden EFI and recovery partitions are included even when File Explorer does not show them.
- A label such as Replicator is a volume name. Generic Flash Drive can be the manufacturer's hardware model. Both can describe the same physical USB.

Destination checklist

- Select only drives that may be permanently erased.
- Use the disk number, hardware model, serial number, and capacity to identify each physical destination.
- Smart Copy accepts a smaller drive when it meets **Min target**, calculated from used data plus safety reserves. Fixed and unknown partitions remain unchanged; Exact Clone still requires a drive at least as large as the source.

RUN

Authorize and monitor replication

Smart Copy recreates the partition table, safely right-sizes supported data partitions when needed, copies deployment files, restores boot structure, and verifies each destination independently.

Choose verification

Quick file + size

Recommended for routine batches. Compares deployment file counts and logical byte totals after copying.

Full SHA-256

Reads and hashes every source and destination deployment file. Stronger validation, but significantly slower.

1

Review preflight

All source, partition, capacity, and queue checks must be green. Read every selected destination card one final time.

2

Open authorization

Click **Start Replication**. Powerpack displays the exact destination disks that will be erased.

3

Type ERASE

Enter **ERASE** in uppercase, then click **Authorize Erase and Replicate**. This is the last point before destructive work begins.

4

Monitor every target

Each target shows its own stage, percentage, transfer rate, ETA, completion, or failure. One failed destination does not stop the other workers.

5

Wait for all workers

Selections stay locked until every target worker exits. Do not unplug, deselect, format, or browse an active destination drive.

ETA and speed

Copy performance is usually limited by the source USB, destination flash media, hub, and USB bus rather than processor speed. Use USB 3.x ports, a powered hub, good-quality drives, and Quick verification for routine production.

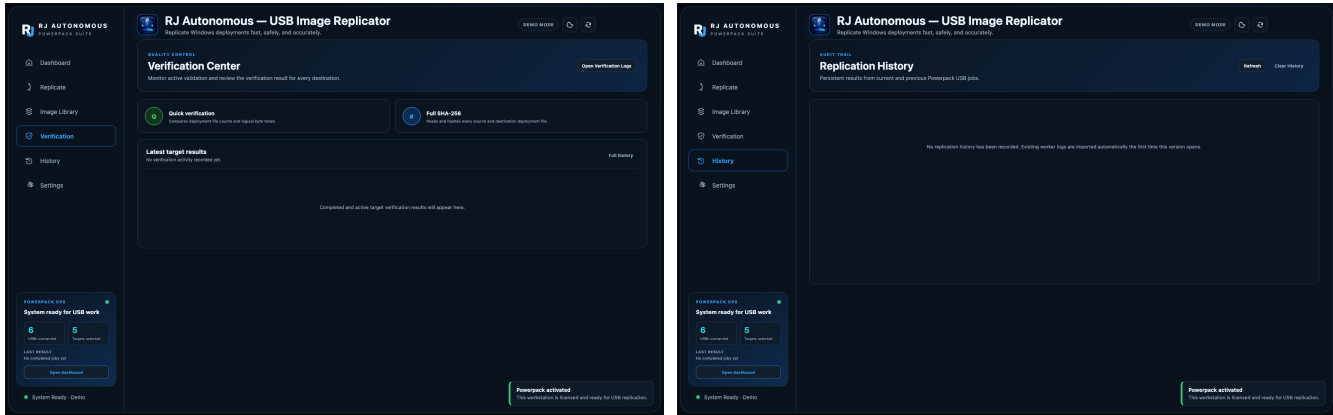
Cancel safely

Cancel Run requests a controlled stop. A worker may finish its current file operation before releasing temporary mount points. Wait for the final status before removing a USB.

QUALITY CONTROL

Verify, record, and eject

A job is not finished until each required target reports a final result and the deployment media has been validated for its intended hardware.



Verification Center and History keep the latest per-target result and a persistent audit trail.

1

Confirm completion

Every intended destination should show Completed or Verified and ready. Investigate any Failed, Cancelled, or Interrupted result.

2

Review logs when needed

Use View Logs or Settings - Open Logs Folder for detailed worker output. Keep the matching run ID and disk number with any support request.

3

Safely eject

Use Windows Safely Remove Hardware after Powerpack has completed and released all workers. Do not pull a drive that is still active.

4

Boot-test the media

For each new master revision or USB model, boot at least one completed destination on a representative Dell system and confirm the intended deployment workflow starts.

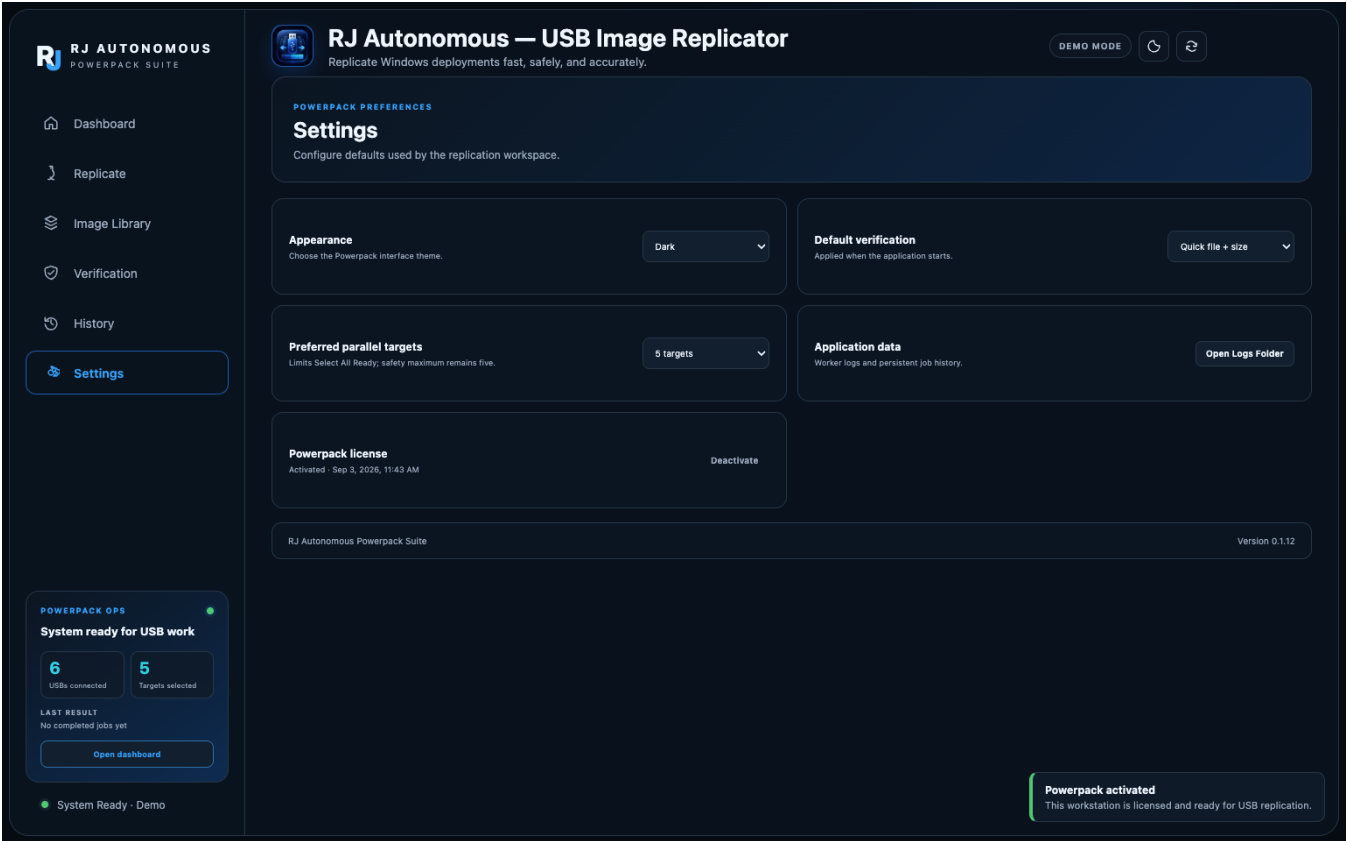
Production acceptance

Quick or SHA-256 verification confirms copied file content. It does not replace a real UEFI boot test and a representative end-to-end deployment test.

PREFERENCES

Settings and license controls

Settings are stored for the current Windows user and apply to future application launches.



Settings includes interface, verification, parallel-target, data, and license controls.

Appearance Switch between the dark and light Powerpack interface.	Default verification Choose Quick file + size or Full SHA-256 as the startup default.
Preferred parallel targets Limit Select All Ready to one through five destinations. The safety maximum remains five.	Application data Open worker logs and persistent history data for support and auditing.
Powerpack license Review activation status or deactivate the workstation. Deactivation requires the license key on the next launch.	Theme button The moon or sun button in the top bar changes appearance immediately.

Do not deactivate during a job
Powerpack disables deactivation while replication is active. Wait for all workers to finish first.

SUPPORT

Troubleshooting

Start with the symptom below. Never use Disk Management to alter a destination while Powerpack is actively working.

The app does not open	Extract the ZIP first and unblock the download. Double-click Setup to install, or double-click the Portable executable, approve UAC, and check %TEMP%\RJ-USB-Replicator-startup.log.
Windows shows SmartScreen	Confirm the file came from RJ Autonomous. Click More info, verify the application name, and choose Run anyway only when the source is trusted.
The license is rejected	Confirm the full XXX-XXXX-XXXX-XXXX value, remove leading or trailing spaces, and request the key again from the administrator if needed.
Activation was lost	A Windows account or computer-name change can invalidate the workstation-bound receipt. Activate again with the original key.
A USB does not appear	Reconnect it directly, wait for Windows to detect it, then press Refresh. Confirm it appears in Disk Management and is not read-only.
A target is too small	For Smart Copy, use a USB whose usable capacity meets the displayed Min target value. This is based on current source data plus safety reserves, not the source USB's full marketed size. Two nominally equal drives can still have different usable byte counts.
The app shows Generic Flash Drive	That is usually the hardware model. Replicator or IA_Dynamic is a volume label. Use disk number, model, serial, and capacity together.
The master shows repeated IA_Dynamic volumes	Those are separate partitions on one physical source USB. Powerpack reconstructs every recognized partition in disk order.
ETA is very long	Use USB 3.x ports, avoid unpowered hubs, test a faster destination, and use Quick verification. CPU upgrades rarely remove a flash-drive bottleneck.
One destination fails	Let the remaining workers finish. Open logs, record the failed disk number, replace or reformat that physical USB, and retry it as a single target.

REFERENCE

Safe operations checklist

Use this checklist for the first run of every new master revision, destination model, workstation, or USB hub.

[]	1. The source USB is known-good and clearly labeled as MASTER.
[]	2. The workstation is on stable power and Powerpack is running as administrator.
[]	3. The source disk number, model, capacity, and partition map were reviewed.
[]	4. Every selected destination was matched to a physical device and may be erased.
[]	5. No internal system disk, external backup disk, or unrelated removable media is selected.
[]	6. The verification policy is appropriate for the batch.
[]	7. No active USB will be disconnected until all workers have exited.
[]	8. Failed targets will be isolated and investigated rather than reused immediately.
[]	9. At least one completed USB will be UEFI boot-tested on representative hardware.
[]	10. The result, master revision, USB models, and relevant logs will be retained as required.

Information to collect for support

Application version; Windows version; source and target disk numbers; USB hardware models and capacities; the exact on-screen error; a screenshot; and the matching worker log file.

License keys should be delivered separately from public download packages. Do not place the production key in the ZIP, on a public website, or inside this manual.

RJ Autonomous - Powerpack Suite

Precision. Performance. Peace of mind.