RRAZ Deblur

Installation and check · Affinity 3 · Windows 10/11 (64-bit) · version 1.0.0

This sheet covers installing RRAZ Deblur and checking that it runs. The photographer's notes are a separate document, linked at the end. Everything runs on this computer: no upload, no account, no server.

> **These filters only work on 16-bit rasterised images.**
> A 16-bit per channel pixel layer, in RGB or greyscale. 8-bit and 32-bit HDR documents cannot be processed.

1 Install

Before you start

- Windows 10 or 11, 64-bit.
- An NVIDIA graphics card supported by CUDA 13.2: Turing / RTX 20-series or newer. GTX 10-series and older cards are not supported.
- NVIDIA driver **580 or newer**.
- About **7 GB free**, in two places: about 3.6 GB where you extract the zip (the zip and the folder), and about 3.2 GB on the drive that holds your Windows account, where the engine is installed. Check both drives before you start.
- Close Affinity. The plug-in cannot be replaced while Affinity is using it.
- The install is per user. No administrator rights are needed.

The download

Download one file: `RRAZ_DEBLUR_1.0.0.zip`, about 1.8 GB. It contains the setup, the runtime, this sheet and the checksums.

> **Decide where it will be extracted before you extract it.** Do not just double-click the zip and drag the files out — the files stay where you put them until you delete them.
>
> - Right-click the zip and choose **Extract All**. Windows proposes a folder next to the zip, usually inside `Downloads`.
> - Look at the drive in that path. If it has about 1.8 GB free, continue. If it does not, choose another folder on a drive that has the room, in the same dialog.
> - The setup does not ask where to install the filter. The engine always goes to the drive that holds your Windows account, usually `C:`, and needs about 3.2 GB there.

Run the setup

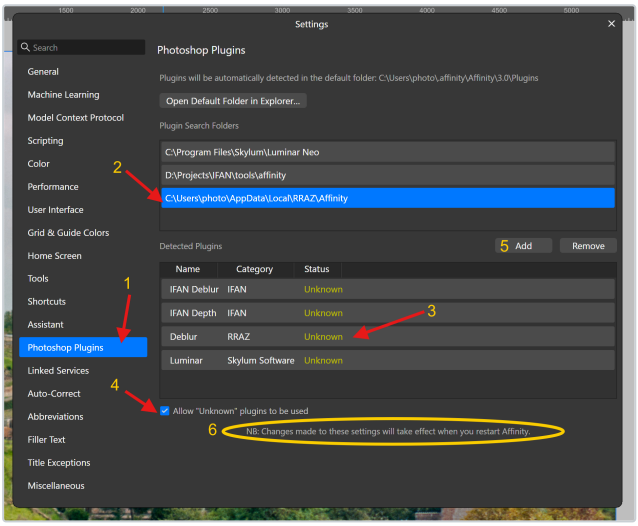
- In the extracted folder, double-click `RRAZ_DEBLUR_1.0.0_Setup.exe`. Windows may warn that it is unsigned: choose **More info**, then **Run anyway**.
- Setup checks the NVIDIA driver, verifies the runtime's SHA-256, then expands the engine. This takes a minute or two.
- No files are written outside `%LOCALAPPDATA%\RRAZ`.

Check that it installed

- **Settings > Apps** lists **RRAZ Deblur 1.0.0**.
- The engine is in `%LOCALAPPDATA%\RRAZ\Deblur` (it contains `python\python.exe` and `app\`).
- The plug-in files are in `%LOCALAPPDATA%\RRAZ\Affinity`: `Deblur.8bf`, `to_raw.py`, `deblur.ini`.
- After the install, delete both the zip file and the folder you extracted it into, with everything in it. The filter does not need them. If Windows will not delete a file because it is in use, close anything open from that folder — including the PDF sheet or a text file — then delete the folder again. The engine stays in `%LOCALAPPDATA%\RRAZ\Deblur`.

Add the folder to Affinity

Affinity's plug-in folder is a preference, so it has to be added once, the same way for every RRAZ filter. The setup finish page shows the exact folder for your Windows account.



Affinity Settings > Photoshop Plugins (1). Other rows in this example are unrelated; only the RRAZ row matters.

1. Open Affinity, then **Settings > Photoshop Plugins** (1).
2. Already have an RRAZ filter installed? If your RRAZ folder is listed in **Plugin Search Folders** (2), a filter is listed in **Detected Plugins** (3), and (4) is ticked, the folder is already added: close and reopen Affinity and go to step 6.
3. Otherwise tick **Allow "Unknown" plugins to be used** (4) and click **Add** (5).
4. Paste `%LOCALAPPDATA%\RRAZ\Affinity` into the folder dialog, press Enter, then choose **Select Folder**.
5. Close Affinity and open it again; the note at (6) says changes take effect on restart.
6. Open **Filters > Plugins > RRAZ > Deblur**.

That folder is normally `C:\Users\<you>\AppData\Local\RRAZ\Affinity`, and the user name is different on each computer. Add the **Affinity** folder, not the engine folder (`...\RRAZ\Deblur`). Any folder already listed can stay; RRAZ is a separate entry.

To uninstall

Settings > Apps > RRAZ Deblur > Uninstall. It removes its engine and files. The plug-in folder entry in Affinity is a preference and can be removed there.

2 Check it in Affinity

Open a 16-bit image

- Use a 16-bit per channel, rasterised pixel layer: **RGB (16 bit)** or **Grey (16 bit)**.
- With an 8-bit or 32-bit HDR document the RRAZ Deblur menu entry is **greyed out**. Convert first with **Document > Colour Format > RGB (16 bit)** (or Grey 16-bit).
- If the filter is run on an unsupported bit depth anyway, the layer becomes flat **mid-grey** — 50% grey (128 in 8-bit, 16384 in Affinity's 16-bit range, 0.5 in 32-bit). That is a refusal, not a result. Undo; the log says why.

Run the filter

- Select the pixel layer and open **Filters > Plugins > RRAZ > Deblur**.
- The active layer is processed **in place**. Duplicate the layer first if you want to compare before and after.
- The layer's alpha channel is not changed.
- Affinity waits while it runs. Everything is local; no image leaves the computer.

What success looks like

- The same layer and dimensions, now deblurred. There is no success dialog.
- A line is added to `%LOCALAPPDATA%\RRAZ\Affinity\deblur.log`.

Size

The filter refuses an image that would need more memory than the machine can spare, rather than quietly making it smaller. The message names the exact megapixel limit for that computer. On a 12 GB NVIDIA card, keep the **longest side at or below 5700 px**.

If the menu entry is missing

- Check that `%LOCALAPPDATA%\RRAZ\Affinity` is listed in **Settings > Photoshop Plugins**.
- Restart Affinity.
- Read `%LOCALAPPDATA%\RRAZ\Affinity\deblur.log`.
- Confirm the layer is 16-bit, not 8-bit or 32-bit.

Deblurring algorithm: IFAN — *Iterative Filter Adaptive Network for Single Image Defocus Deblurring*. Junyong Lee, Hyeongseok Son, Jaesung Rim, Sunghyun Cho, Seungyong Lee. CVPR 2021, POSTECH. Original code: github.com/codeslake/IFAN.

Changes for full-resolution tiling and the Affinity plug-in: github.com/RRaz/Filters/. Not affiliated with or endorsed by the original authors.

All RRAZ filters, notes and example images
https://github.com/RRaz/Filters/

The list, notes and images are kept separately and updated independently of this installer. Download them when you want; there is no ZIP.