



I'm quite confused as to what output format to choose when returning from Photoshop, Topaz Photo AI, Topaz Gigapixel AI, Nik Collections 9 and DxO Pure RAW 6 back to Lightroom Classic. Can you give authoritative and referenced advice and best practice

This is one of the most genuinely confusing aspects of a multi-tool Adobe workflow, because the right answer differs per tool – and getting it wrong costs you either quality or editability. Here is authoritative, tool-by-tool guidance.

The Golden Rules First

Before the specifics, two principles apply universally:

- **TIFF 16-bit ProPhoto RGB** is the workhorse format when returning a rendered (non-RAW) file to Lightroom Classic for further editing. It preserves the maximum bit depth and colour gamut available, and is publicly documented (unlike PSD).^[1] ^[2]
- **Never use JPEG as an intermediate** between tools. It is lossy – every save degrades the file. Reserve JPEG for final delivery only.^[3] ^[4]

Tool-by-Tool Best Practice

Photoshop → Lightroom Classic

When you use "Edit In → Photoshop" from Lightroom, the handshake is automatic: Lightroom sends a TIFF (or PSD, depending on your External Editing preferences) and Photoshop saves back to the same file. Adobe's own guidance – and the Lightroom Queen, considered the definitive LrC reference – recommends **TIFF with ZIP compression** over PSD, as PSD is now considered a legacy format even by Adobe, and TIFF handles metadata more efficiently. Set colour space to **ProPhoto RGB** and **16-bit** in Lightroom's External Editing prefs.^[1]

Topaz Photo AI → Lightroom Classic

Topaz Photo AI has two routes back to Lightroom, and which you use matters enormously:

- **Via the Plug-in Extras route** (File → Plug-in Extras → Process with Topaz Photo AI): this is the recommended RAW workflow. Topaz processes the original RAW and returns a **DNG** directly to your catalogue – preserving the most RAW data and keeping file sizes more manageable.^[4] ^[5]

- Via "Edit In" right-click: Lightroom renders a TIFF first, then Topaz processes that rendered TIFF and returns a TIFF. This is a second-generation render — acceptable, but inferior to the DNG plugin route. ^[6] ^[7]
- Note: if you apply Adjust Lighting or Colour Balance inside Topaz Photo AI, it *cannot* return a DNG — it will output TIFF regardless. ^[6]

Topaz Gigapixel AI → Lightroom Classic

Gigapixel is typically used as a standalone or via "Edit In." Since it upscales a rendered file, there is no meaningful RAW advantage here. Use **TIFF 16-bit** as output and reimport manually, or set it as a secondary external editor in LrC preferences outputting TIFF. ^[2] ^[1]

Nik Collection 9 → Lightroom Classic

Nik Collection cannot process RAW files at all — it only accepts JPEG or TIFF. This means your RAW must be developed in Lightroom first. The correct workflow is: ^[8] ^[9]

1. Develop your RAW in LrC as normal.
2. Right-click → "Edit In" → choose the Nik tool.
3. Lightroom renders and passes a **TIFF 16-bit** to Nik.
4. On clicking Apply/Save in Nik, it writes back to that same TIFF, which automatically reimports to your LrC catalogue. ^[10] ^[11]

Always keep Nik's incoming file as **TIFF 16-bit**, never JPEG, to avoid accumulating lossy compression. ^[11] ^[12]

DxO PureRAW 6 → Lightroom Classic

PureRAW is a pre-processor — it is best used *before* any Lightroom editing, not after. The recommended output is DNG (**Linear, Compressed**):

- A linear DNG retains RAW-like editability (all your Lightroom develop sliders work normally), while carrying DxO's lens corrections, noise reduction, and demosaicing baked in. ^[13] ^[14] ^[15]
- Compressed DNG is recommended to manage the large file sizes (typically 120–150 MB uncompressed). ^[16]
- TIFF 16-bit is the fallback if your downstream tool can't handle the DNG, but you lose re-editability as a RAW-style file. ^[14] ^[17]
- Use the **PureRAW Lightroom plugin** (not "Edit In") for the cleanest round-trip — it processes the RAW and imports the DNG back into your catalogue automatically. ^[18] ^[13]

Quick Reference

Tool	Recommended Return Format	Bit Depth	Notes
Photoshop	TIFF (ZIP compressed)	16-bit	ProPhoto RGB; set in LrC External Editing prefs ^[1]
Topaz Photo AI	DNG (via Plug-in Extras)	RAW	Use plugin route, not "Edit In" ^[4]
Topaz Gigapixel AI	TIFF	16-bit	Set as secondary external editor ^[1]
Nik Collection 9	TIFF (auto via "Edit In")	16-bit	Cannot accept RAW; develop in LrC first ^{[8] [11]}
DxO PureRAW 6	DNG Linear (Compressed)	RAW	Use before LrC editing; use plugin not "Edit In" ^{[13] [14]}

The single most impactful change you can make if you haven't already: ensure Lightroom's **External Editing preferences** (Lightroom Classic → Preferences → External Editing) are set to **TIFF / ProPhoto RGB / 16-bit / ZIP compression** as the primary editor format — this underpins every "Edit In" handshake across all these tools. ^{[2] [1]}

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1. <https://www.lightroomqueen.com/add-external-editor/>
2. <https://www.lightroomqueen.com/export-from-classic/>
3. <https://www.iphotography.com/blog/the-best-export-settings-in-adobe-lightroom-for-photographers/>
4. <https://support.topazlabs.com/article/134-the-recommended-raw-workflow-in-lightroom-classic>
5. <https://docs.topazlabs.com/photo-ai/features/export>
6. <https://docs.topazlabs.com/photo-ai/plugins/lightroom-classic>
7. <https://community.topazlabs.com/t/photo-ai-output-format-choice-in-lightroom-classic/38861>
8. <https://nikcollection.dxo.com/learn/>
9. <https://support.dxo.com/hc/en-us/articles/5091196651037-Which-file-formats-are-supported-for-use-with-Nik-Collection>
10. <https://www.youtube.com/watch?v=OndATYvO8R4>
11. <https://www.youtube.com/watch?v=7OgJMBJGpaQ>
12. <https://keithwee.com/2025/05/30/dxo-nik-collection-8-maximising-creative-potential-with-lightroom-classic/>
13. <https://forum.dxo.com/t/pure-raw-as-lr-plugin/32430>
14. <https://userguides.dxo.com/pureraw/en/processing-tools-and-settings/>
15. <https://www.youtube.com/watch?v=tFgc7EYVRw>
16. <https://www.youtube.com/watch?v=xbcx5k0pLE>
17. <https://support.dxo.com/hc/en-us/articles/4432734318865-What-output-formats-are-offered-by-DxO-PureRAW>
18. <https://community.adobe.com/questions-680/edit-in-is-useless-for-dxo-pureraw-as-the-file-changes-to-tiff-907059>
19. <https://bcgforums.com/threads/switching-to-dxo-pure-raw-6-from-lightroom-classic-and-or-topaz-photo-ai-v-4-0-4-52-926/>
20. <https://www.youtube.com/watch?v=7DoV-cFEHLs>
21. https://www.reddit.com/r/Lightroom/comments/jfrm9c/what_to_export_as/
22. <https://www.youtube.com/watch?v=EgPjfaJXqyl>

23. <https://www.youtube.com/watch?v=RSI2Y5AYEwY>
24. https://www.reddit.com/r/Lightroom/comments/1dp2o8e/lightroom_and_topaz_photo_ai_export_raw_vs_tif/
25. <https://mattk.com/i-changed-my-noise-reduction-workflow-heres-why/>
26. <https://www.facebook.com/groups/topazlabs/posts/1729231704104351/>
27. <https://forum.dxo.com/t/auto-re-import-back-to-lightroom-classic/39155>
28. <https://www.youtube.com/watch?v=RGthNeEHg5w>
29. <https://www.capturelandscapes.com/nik-collection/>
30. <https://www.youtube.com/watch?v=Qx6H5SUsYQA>