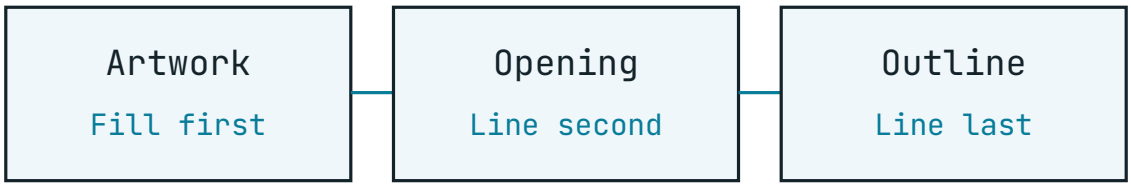
LESSON GUIDE

Changing the order of operations

Set an explicit layer order and check the real sequence in Preview.

Disconnected software practice

Leave **No Machine** selected and stay disconnected. The projects have no machine profile. Output is enabled where needed for software Preview; the example values are not material settings. Keep each lesson pack in its own folder.



Target order for this example. The layer names describe this project; they are not material settings.

1. Open **order-start.lzrproj**. The stored starting layer order is Outline, Opening, Artwork. Keep No Machine selected.

2. In **Run**, open **Optimization**. Turn on **Enable**, check **Layer** under Order by, click OK, then return to Design. Keep the other supplied options.

3. Preview the original order with Show Travel off. Go to start and use **Next segment** to see the outside rectangle first. Close Preview.

4. Select Artwork and click the **left-pointing Move up** button twice at the top of Layers. Artwork becomes first.

5. Select Outline and use the **right-pointing Move down** button once. Read the tabs left to right: Artwork, Opening, Outline.

6. Reopen Preview, hide travel, go to start and step through. Check Fill first, opening second, outside last. Save a separate copy and compare with **order-finished.lzrproj**.

INDEPENDENT PRACTICE

Independent practice

Open **order-practice.lzrproj**. This time the starter order is **Opening, Outline, Artwork**. Enable Optimization and Layer ordering, then finish with **Artwork, Opening, Outline**.

☐ Preserve the 55 x 35 mm outline, 8 mm opening and 28 x 14 mm filled artwork.

☐ Step through Preview to identify the first burn operation and the last boundary.

☐ Save your own copy before comparing with order-practice-answer.lzrproj.

Which operation should start first?

Which boundary should be last?

Why does a completed Preview picture alone not prove the sequence?

Read the burn operations

Next segment can include laser-off travel. Follow which artwork appears, rather than assuming each click is a new operation.

EXPLAINED ANSWER

Explained answer

Practice result
The tabs read Artwork, Opening, Outline. Optimization is enabled with Layer as its ordering criterion.

Project geometry
The demonstration uses a 50 x 30 mm frame, 6 mm opening and 24 x 12 mm filled area. Practice uses different sizes. Reordering layers does not change geometry or membership.

Check the sequence
A completed image contains every operation. Stepping from the start shows which is planned first and last. Color identifies a layer; it does not assign the sequence.

order-start.lzrproj
Demo starter: Outline, Opening, Artwork.

order-finished.lzrproj
Demo answer: Artwork, Opening, Outline.

order-practice.lzrproj
Practice starter: Opening, Outline, Artwork.

order-practice-answer.lzrproj
Practice answer: Artwork, Opening, Outline.

The 1 mm Fill interval makes this software example easy to inspect. Before a real job, verify the chosen ordering options and Preview the resulting plan again.

Matches the demonstrated Beam Bench 0.2.37 interface. Panel layout may differ in later versions.