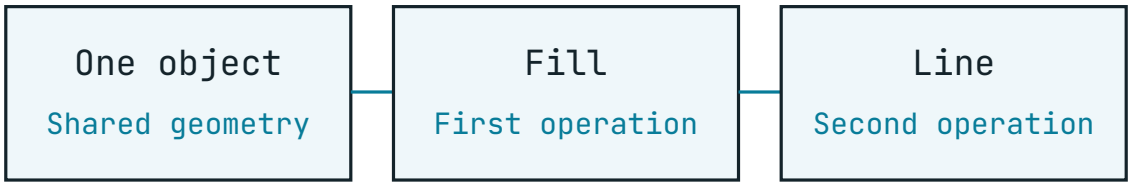
LESSON GUIDE

Adding sub-layers for multiple operations

Apply Fill and then Line to one object, with separate settings for each operation.

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.



One object is processed twice. Sub-layers are operation entries, not duplicate artwork.

1. Open **sublayers-start.lzrproj**. Artwork contains one rectangle with Fill at **1200 mm/min, 20%, one pass** and a **1 mm** interval.

2. Click **+ Sub-layer**. The new entry copies the current settings. Select the second Fill button and change its **Mode to Line**.

3. Set that Line entry to **600 mm/min, 40%, one pass**. Check that the first Fill retains 1200 mm/min and 20%.

4. Select Line, use its up arrow, then move it back down. Finish with **Fill first, Line second**.

5. Disable only Fill's own Output. With main layer Output on, Preview shows just the boundary. Restore Fill Output, reopen Preview and step from the start to inspect Fill followed by Line.

6. Check Outliner: still one object. Save a separate copy and compare with **sublayers-finished.lzrproj**.

INDEPENDENT PRACTICE

Independent practice

Open **sublayers-practice.lzrproj**. Keep the single ellipse and its Fill unchanged: **900 mm/min, 15%, one pass, 1.5 mm interval**. Add a Line sub-layer at **900 mm/min, 30%, one pass**.

☐ Finish with Fill first and Line second. Keep both entry Outputs and main layer Output on for disconnected Preview.

☐ Use Next segment from the start to inspect the order, with Show Travel off.

☐ Save your own copy and compare with sublayers-practice-answer.lzrproj.

How many objects and how many operations should the answer contain?

Which Output control hides only Fill from Preview?

If you edit the single ellipse, which operations use the new geometry?

EXPLAINED ANSWER

Explained answer

Practice answer
One 30 x 22 mm ellipse on Artwork, with two entries: Fill at 900 mm/min and 15%, then Line at 900 mm/min and 30%. Each has one pass; Fill interval remains 1.5 mm.

Operation order
The entry list runs top to bottom. Reordering entries changes which operation processes the shared object first.

Selective Output
The smaller Output belongs to the selected entry. Main layer Output excludes every entry. Editing the one shape changes the geometry used by both operations.

sublayers-start.lzrproj
Demo starter: one rectangle and one Fill operation.

sublayers-finished.lzrproj
Demo answer: one rectangle, Fill then Line.

sublayers-practice.lzrproj
Independent starter: one ellipse and one Fill operation.

sublayers-practice-answer.lzrproj
Independent answer: one ellipse, Fill then Line.

Wide Fill intervals and the supplied values are chosen for a readable software comparison. They are not cutting or engraving recipes.

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