SVG AND DXF

Importing SVG, DXF and PDF artwork

Check source units, imported geometry and editable content across three file formats.

Software practice and review

Keep **No Machine** selected and stay **disconnected** for project exercises. Supplied operation values are software examples, not tested material recipes. Keep originals and save your own work separately.



Correct outer dimensions and preserved source detail are separate import checks.

1. For SVG, use **svg-import-start.lzrproj** and import **coaster-art.svg**. Select all three imported shapes. The source artwork is 560 x 560 mm in a 600 x 600 page.

2. With proportions locked in Properties, set W 90 mm and confirm H 90. Center the full selection. Inspect actual layer membership and Line mode. Compare **svg-import-answer.lzrproj**.

3. Use a fresh **dxf-import-start.lzrproj** for **bracket.dxf**. Center all three shapes and check W 60/H 30 mm.

4. Use another fresh starter for **bracket-unitless.dxf**. Its inch-based numbers arrive about 25.4 times too small here. Lock proportions, set W 60 and check H 30.

5. Compare the curved holes too. Scaling the unitless import retains its coarse contours. **dxf-unitless-answer.lzrproj** intentionally differs from the millimeter answer.

6. In a separate import of **bracket-open.dxf**, use Edit > Select > Select Open Shapes. Only the outer outline should select; the holes are closed.

PDF PATHS AND IMAGES

PDF paths and images

1. Open **pdf-import-start.lzrproj** and import **sign-outlined.pdf**. Select all, center on the page and fit the selection. Check W 100/H 60 mm.

2. The import contains nine objects: a border, seven outlined letters and one image. Node Edit exposes editable letter outlines, not editable wording.

3. Try **sign-live-text.pdf** in the disposable exercise. It intentionally contains live text and an embedded font. Read the convert-to-paths message; existing objects should remain.

4. Outline text in the source drawing and export again. Embedding a font alone does not convert lettering to paths. Rasterizing the entire page would discard editable vector lettering.

5. Select the separate 40 x 40 mm bitmap and inspect its Image layer. Inspect the vector Line layer separately.

6. Turn operation Output off for both layers before saving a separate copy. Compare **pdf-import-answer.lzrproj** and the supplied native image.

INDEPENDENT CHECKS AND ANSWERS

Independent checks and answers

Which dimensions should the SVG, DXF and PDF imports have?

Does correcting a DXF's outer dimensions repair coarse imported curves?

Why is the embedded-font PDF intentionally rejected?

Expected sizes
SVG 90 x 90 mm, DXF 60 x 30 mm, PDF 100 x 60 mm. Check all intended shapes together.

Curve quality
No. Outer scale and curve fidelity are separate checks.

Text format
Outlining converts letters to editable vector geometry. An embedded font leaves live text in the PDF.

The PDF image is NASA Earth Observatory's Blue Marble 2002, a satellite-data composite used as an import example. No NASA endorsement or physical laser result is implied.

NASA Blue Marble 2002 source and credit

NASA images and media guidance

FILES AND COMPARISONS

Files and comparisons

Importing DXF artwork
Folder importing-dxf-artwork. **bracket-open.dxf**, **bracket-unitless.dxf**, **bracket.dxf**, **dxf-import-answer.lzrproj**, **dxf-import-start.lzrproj**, **dxf-unitless-answer.lzrproj**, **native-answer.png**. Keep this chapter's inputs and comparisons together.

Importing pdfs
Folder importing-pdfs. **image-source.json**, **pdf-import-answer.lzrproj**, **pdf-import-answer.png**, **pdf-import-start.lzrproj**, **sign-live-text.pdf**, **sign-outlined.pdf**. Keep this chapter's inputs and comparisons together.

Importing SVG artwork
Folder importing-svg-artwork. **coaster-art.svg**, **svg-import-answer.lzrproj**, **svg-import-answer.png**, **svg-import-start.lzrproj**. Keep this chapter's inputs and comparisons together.

Use the comparison after your attempt. Check the specified dimensions, settings and object structure.