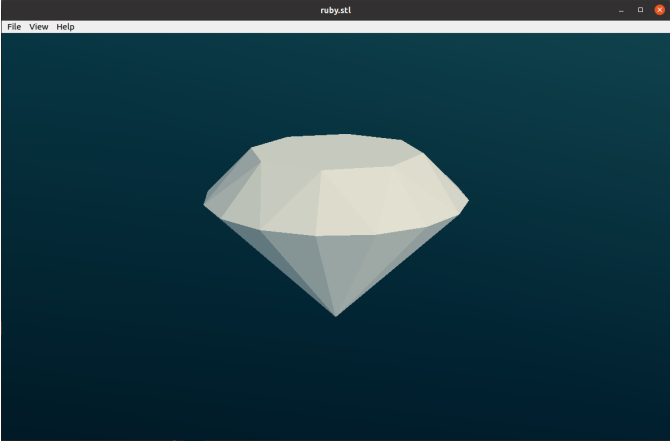
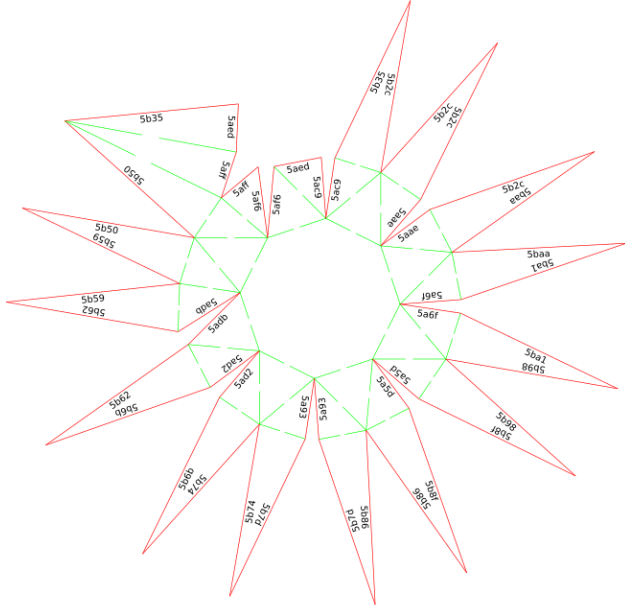


# Papercraft Unfold


This tool converts a STL/OFF/PLY/OBJ into binary STL Format. The STL then gets unfolded (flattened) to make a papercraft model.

It utilizes <https://github.com/osresearch/papercraft> and <https://github.com/admesh/admesh>

Avoid importing STL files with a lot of surfaces. Larger files require intense computing power. It's better to use simplified low-poly models (with a decent amount of triangles). See [Simplification and remeshing of STL parts](#)

3D STL preview	Papercraft Unfold output
 A screenshot of a 3D viewer window titled 'ruby.stl'. It displays a low-poly, faceted diamond-shaped object in a light gray color against a dark blue background. The object has many flat triangular faces.	 A 2D net of the diamond-shaped object. It consists of a central circular arrangement of triangles, with additional triangles attached to the outer edges, forming a star-like pattern. The triangles are outlined in red and green, and some are labeled with IDs like '5b35', '5b36', '5b37', etc.

## Usage

Papercraft Unfold

▼▲×

Input / General

Mesh Fixing / Adjusting (ADMesh)

Über

Spenden

Input File

...

☒ Generate labels for edges

☒ Resize the canvas to the imported drawing's bounding box

Add extra border around fitted canvas

0,000

−

+

Border offset units

mm


▼

☒ Show converted (and fixed) STL in fstl Viewer

☐ Vorschau

Schließen

Anwenden

Papercraft Unfold

▼▲×

Input / General

Mesh Fixing / Adjusting (ADMesh)

Über

Spenden

Input File

...

☒ Generate labels for edges

☒ Resize the canvas to the imported drawing's bounding box

Add extra border around fitted canvas

0,000

−

+

Border offset units

mm

▼

☒ Show converted (and fixed) STL in fstl Viewer

# Manual steps

## PaperCraft Unfold tool compilation on Windows (and Linux)

The following steps show how to compile `unfold` binary which is used for the upper mentioned Inkscape plugin.

## Start Cygwin (Windows) or use your regular bash shell (Linux)

On Linux we can easily compile using `gcc` and `make`. For Windows executable we can use cygwin with installed `gcc` and `make` libraries.

## Compile

```
cd /c/  
git clone https://github.com/osresearch/papercraft  
cd papercraft  
make  
cp C:\Babun\.babun\cygwin\bin /c/papercraft/  
explorer .
```

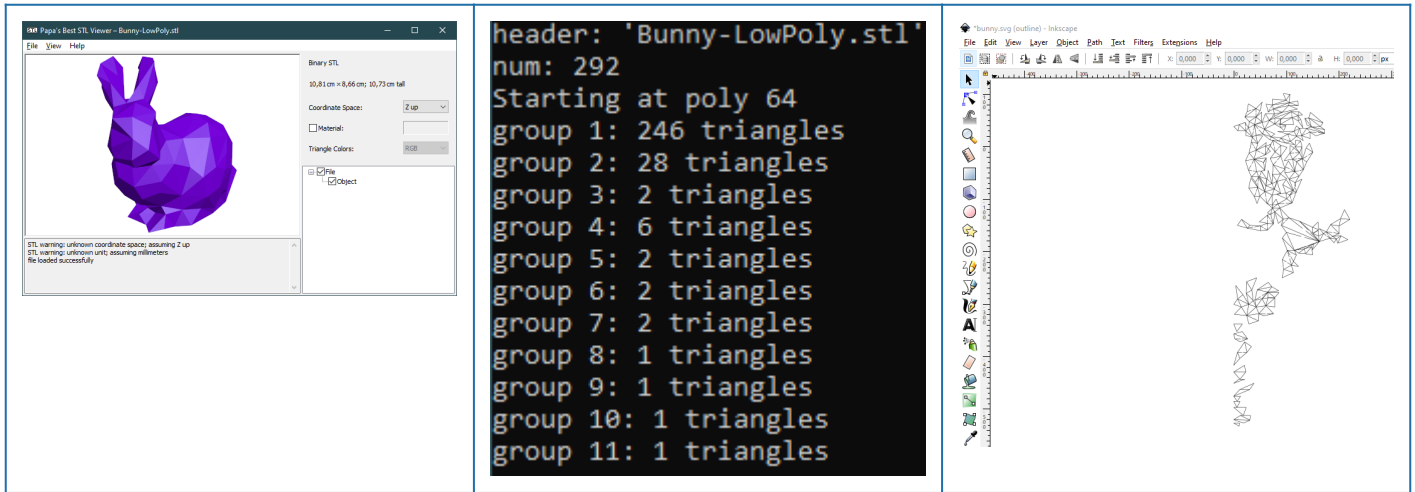
Papercraft Unfold supports option to generate labels for edges. We can make separate compilations to have both variants. (variable: `static int draw_labels = 0;`)

## Start cmd shell

```
cd C:\papercraft  
unfold < Bunny-LowPoly.stl > bunny.svg  
#or explicitly with extension .exe  
unfold.exe < Bunny-LowPoly.stl > bunny.svg
```

## Check output and compare with input

<b>Bunny-LowPoly.stl</b>	<b>unfold &lt; Bunny-LowPoly.stl &gt; bunny.svg</b>	<b>bunny.svg</b>
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Version #1

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