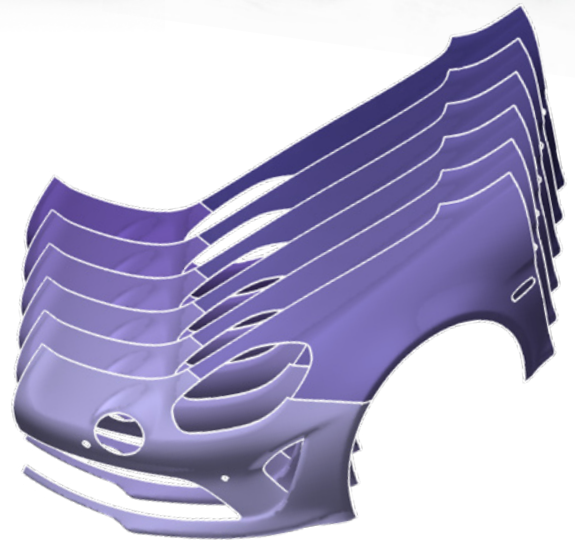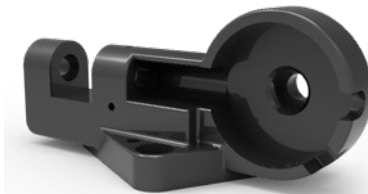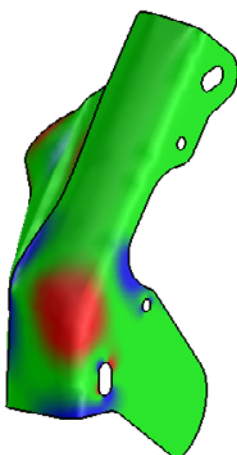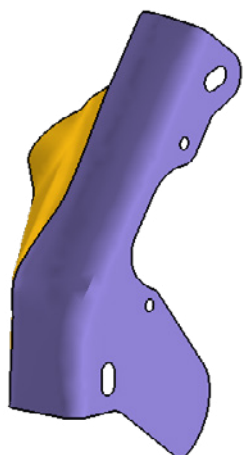# WRAPSTYLER ©

3D > 2D flattening software applied to **composite materials**

Wrapstyler is a 3D to 2D flattening software, result of 30 years of research and development by POLYQUARK.

From design to production, optimize your flattening workflow! Check feasibility, cut meshes, calculate plies, generate 2D patterns... with one single tool.

+ **Anticipate** wear and tear problems and assembly difficulties

+ Improve your **productivity**

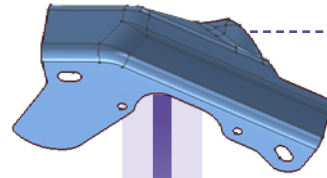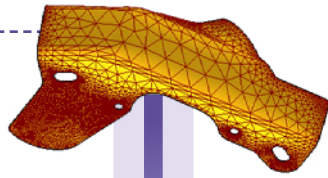+ **Save** material

+ **Save space** by digitalizing your patterns

HIGHLIGHTS

+ Simple, fast and reliable **flattening**
+ Management of materials **elasticity**
+ Easy to use **cutting tools**
+ Automatic calculation of **plies**
+ **Grain-line** based alignment tools
+ Easy **export** to cutting machines
+ Intuitive 2D/3D **synchronized** visualization
+ Numerous standard 3D/2D **import/export formats**

Meshes

Wrapstyler imports meshes in **OBJ** and **STL** formats, from 3D scanners or 3D modeling software.

CAD shapes

Wrapstyler imports **STEP** and **IGES** formats, and includes several meshers to transform CAD shapes into meshes suitable for 2D patterns calculation.
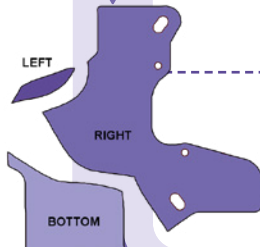
Cutting

Wrapstyler offers powerful and easy to use **cutting tools**.

3D trim parts

Flattening

Wrapstyler takes into account the **physical properties** of the **materials** when flattening.

2D patterns

LEFT

RIGHT

BOTTOM

Deformation report

This report provides quantified information on the **positive and negative deformations** of the patterns.
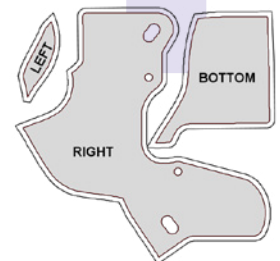
Feasibility check

Wrapstyler can check the feasibility of the project **without you having to make a prototype**, thus saving time and material.

It gives valuable indications on how to improve the patterns: change in the material, adjustment of the shape or displacement of the cutting lines.

Textures preview

Wrapstyler offers **three ways of texturing**: texture inherited from OBJ files, draping of 2D images, and creation of 3D projectors on one or more trim-parts. When they cover several parts, these projectors are automatically cut, mapped and connected on the 2D patterns.
The textured models can be exported in FBX, OBJ, and VRML formats.

Cutting patterns

To communicate with the cutting tools, Wrapstyler uses the **DXF AAMA** and **PDF** standards.

Patterns can also be printed and cut with scissors.