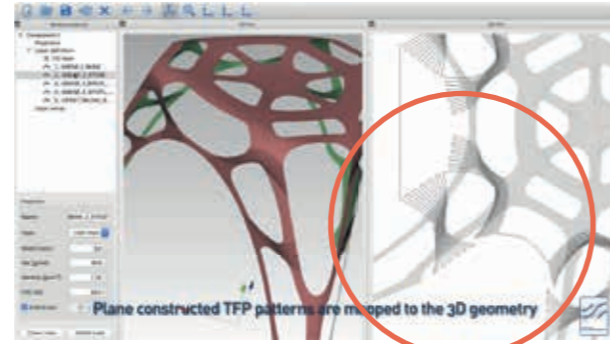


## EDOstructure

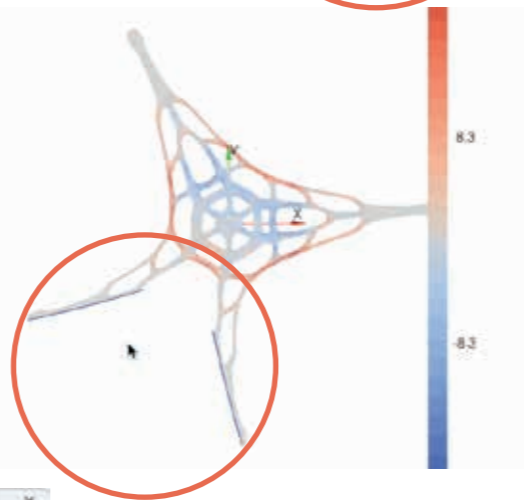
### A. 3D models to 2D pattern data

Modification of 3D models to 2D pattern data for the TFP process



### B. TFP simulation analysis

Evaluation of simulated load cases and automatic determination of suitable TFP layup patterns based on principal stresses, optionally including manufacturing parameters.

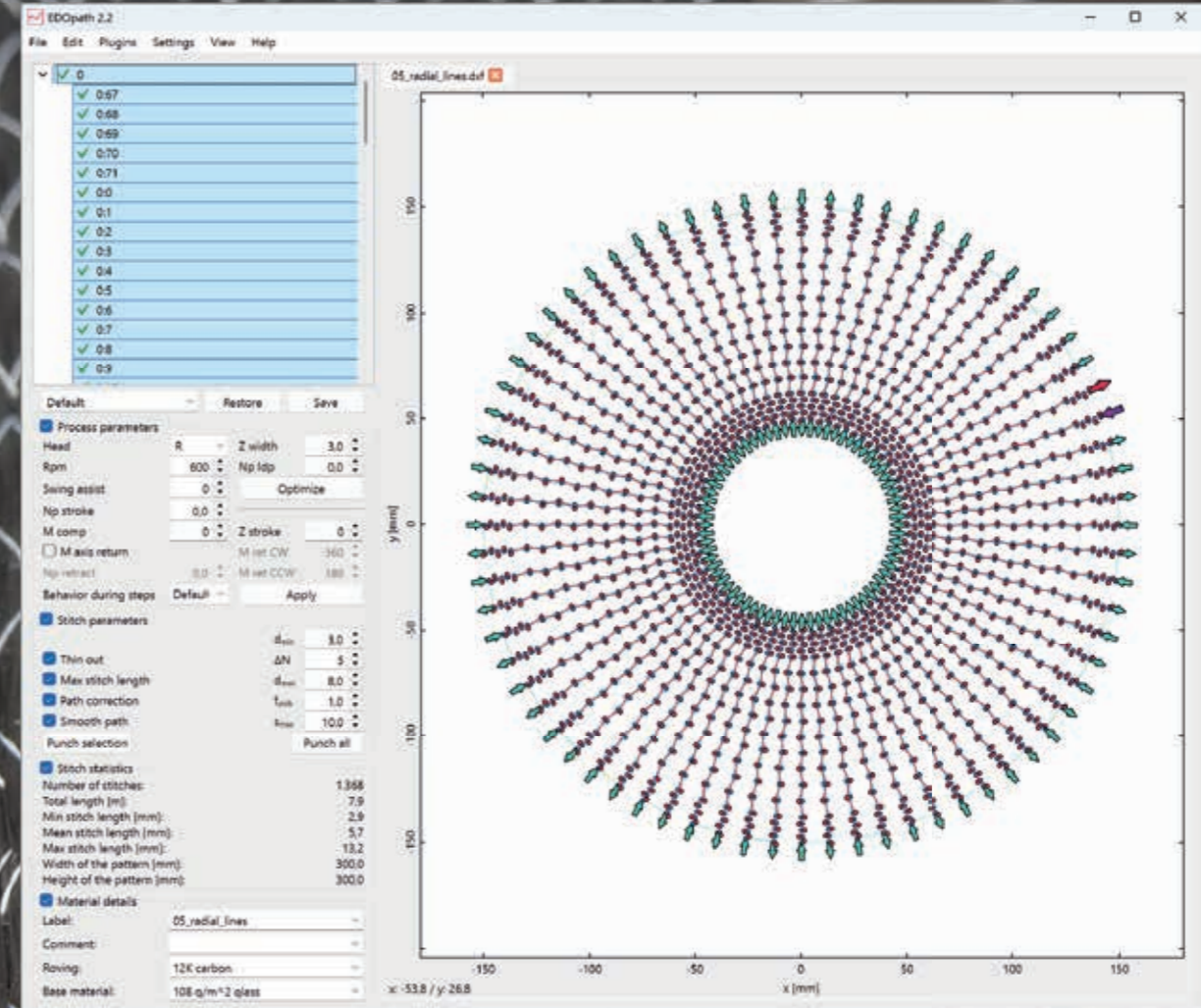
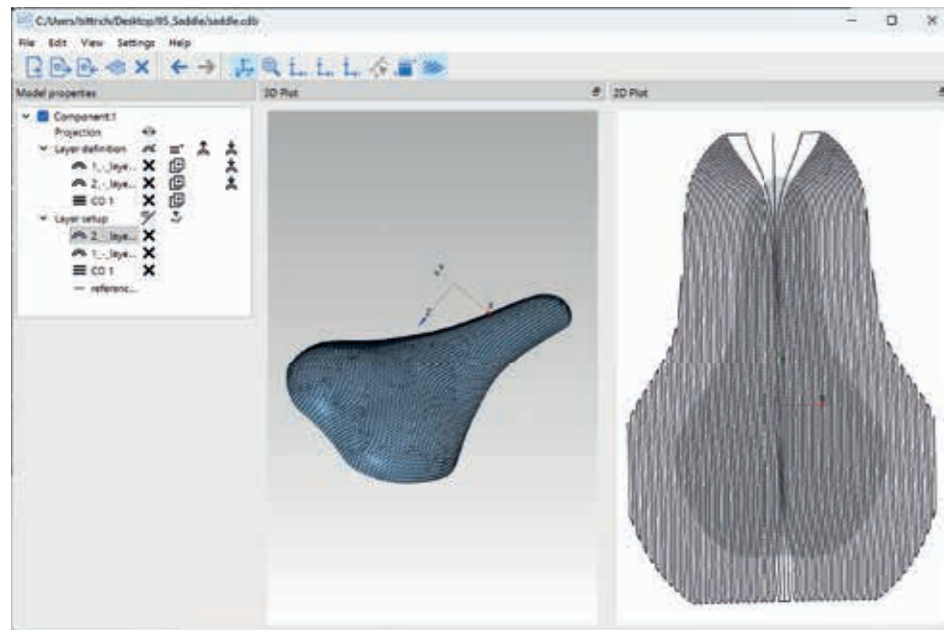


### C. FEM Export/Import

Export/Import of generated pattern data in DXF format

### D. Simulation models

Easy creation of production-compliant, complex numerical simulation models and their export for various FEA solver formats



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**CF** Complex  
Fiber Structures

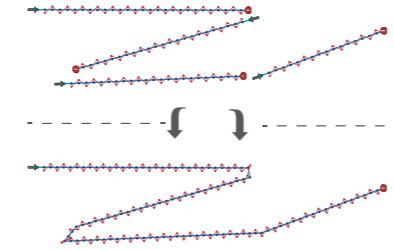


The two levels have the following benefits and features

## EDOpath 1.2

### 1. Autoconnect

The Autoconnect function connects single lines to a connected element. In the end each layer is one connected line. (EP1.2, EP2.2)



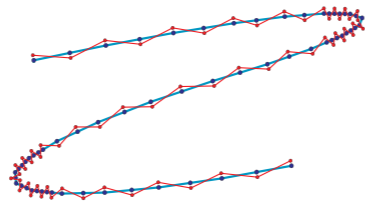
### 2. Autoarrange

The Autoarrange function generates the best sequence of lines for an optimal fiber placement. Put unsequenced lines into the software and use the Autoarrange tool to bring lines into the right order. (EP1.2, EP2.2)



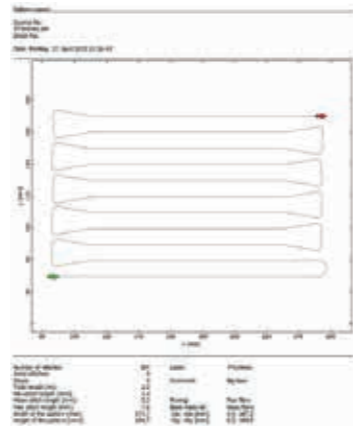
### 3. Autostitch

The Autostitch adapts the stitch length for straight lines, turns, edges and curves automatically according to length-presettings. (EP1.2, EP2.2)



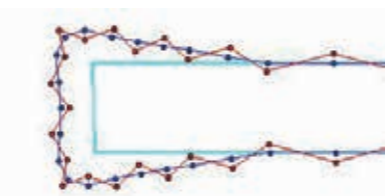
### 4. Zigzag thread view

EDOpath shows the stitch thread for all layers. It even optimizes the stitch arrangements that no stitch is in the same hole. (EP1.2, EP2.2)



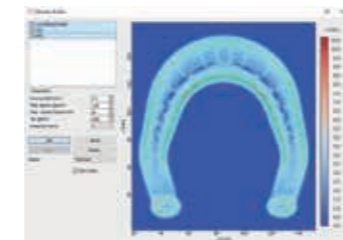
### 5. PDF design overview

EDOpath generates a one page design overview that can be printed and sent to the machine operator. It contains all major information like design size, zigzag settings, material information and start/end point of the design. (EP1.2, EP2.2)



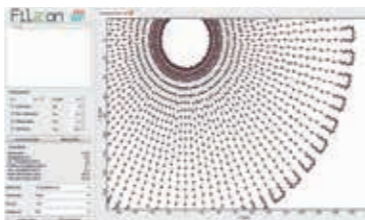
### 6. Fiberpath optimization (mushroom function)

The fiber path optimization provides an ideal placement of the fiber according to the original created CAD laying path. In curves or turning points (180° direction change) the software enlarges and rounds the fiber path automatically, so that the M-axis turns smooth and the roving stays on the original vector line. (EP1.2, EP2.2)



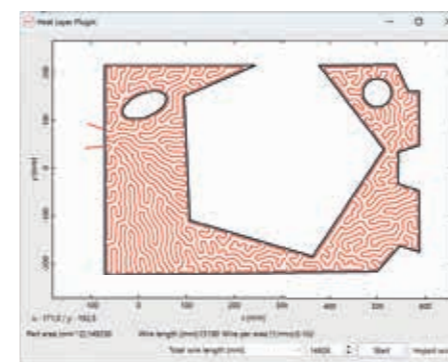
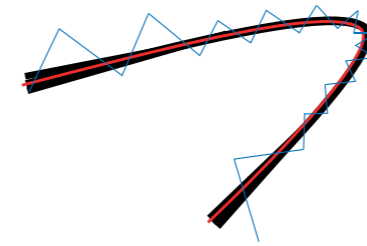
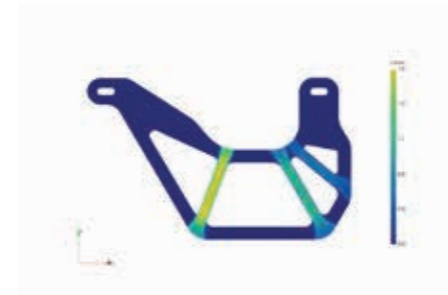
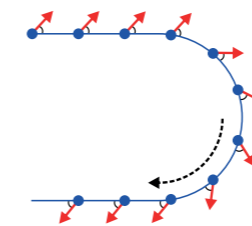
### 7. Auto 3D-calculation

Out of the created surface and layers EDOpath calculates a 3D design by using information like roving width, TEX amount and fiber volume content. (EP1.2, EP2.2)



### 8. DXF-export

All settings made in EDOpath are exportable as a DXF to be read-in again in your CAD system. (EP1.2, EP2.2)



## EDOpath 2.2

### 9. Full settings transfer (EDF-export)

All Tajima specific settings can be defined in EDOpath 2.0 and transferred to the TFP machine:

- Head choice (L/R/all), machine speed (250 - 1000 rpm)
- Swing assist (0-30°), pressure foot stroke (0-8 mm)
- Zigzag width (0-12,7 cm)
- Zigzag stroke (0-16 mm)
- Laying foot height (0-8 mm) (EP2.2)

### 10. M-axis compensation

This parameter sets an additional angular offset to the M-axis orientation along the actual path. Roving is placed in its original width and not compressed. (EP2.2)

### 11. M-axis return function control

Set the angle degree when M-axis returns. The threshold value can be set between -270° and +450°. The TFP machine then automatically turns back the M-axis for overhead feeding (EP2.2)

### 12. Auto guide height arrangement

Stitch function optimization shows the thickness of the component part. The roving properties can be insert and EDOpath will show a height simulation (EP2.2)

### 13. Auto curve zigzag width minimization

To keep the roving at the original path the zigzag width is reduced at turningpoints (EP2.2)

## Option

### Heat Layer Plugin

This plugin calculates equal wire dispersion within a predesigned shape, taking into account the total wire length and the distance between laying paths, as well as the absence of junctions to allow an equal heating dispersion.