

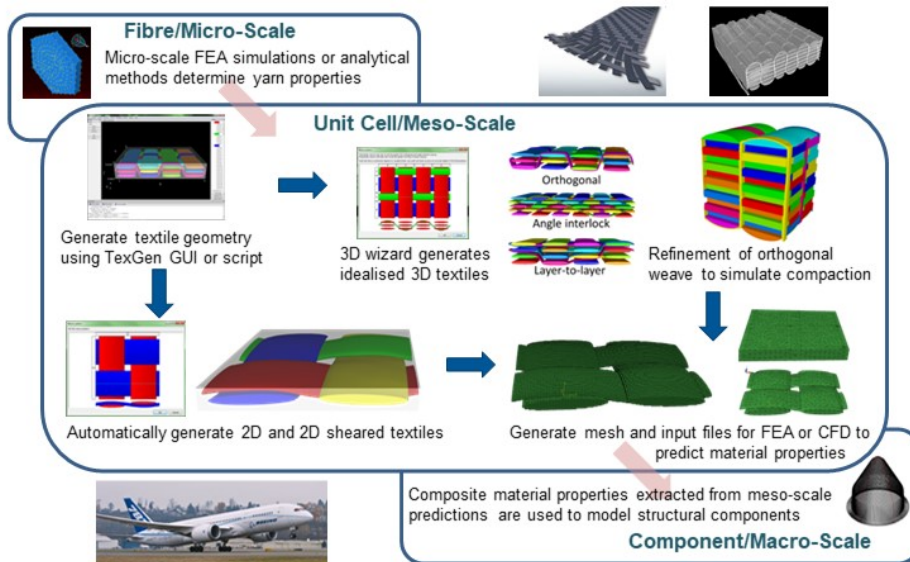
## TexGen (v3.13.1)

TexGen is open-source software licensed under the General Public License developed at the University of Nottingham for modelling the geometry of textile structures. TexGen is a modelling pre-processor for textile simulations for a variety of applications including textile mechanics, permeability and composite mechanical behaviour. It can be used to model a range of textiles such as woven (including complex 3D woven structures), braided and knitted. With over 45,000 downloads since 2006, it is widely used by both academia and industry.

### Category

Software

Learn more



The software can be used both via a user interface and a Python scripting API. Developed within the Composites Research Group at the UoN it is typically used as shown above but has been designed to be flexible so that a wide range of textile forms can be modelled.

The User Guide, describing how to use TexGen via the user interface, can be found here: [User Guide](#). A scripting guide, including sample Python scripts, can be found here: [Scripting Guide](#).

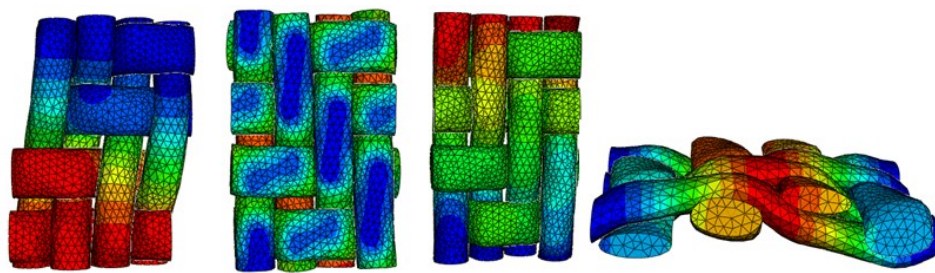
TexGen requires the Python interpreter to be installed in order to run (currently still Python 2.7 in order to retain compatibility with ABAQUS). The standard installation package named texgen-3.x.x.exe does not include Python and requires Python to already be installed. The bundle installation package, texgen-bundle-3.x.x.exe includes the Python interpreter as part of the package

For installation on Linux or to build the code on Windows, you can download the source code from [GitHub](#).

For user support visit the [TexGen forum](#).

A series of webinars are available as [training material](#), including an introduction to creating textile models using TexGen and how to export these models for simulation.

Example simulation outputs using TexGen models:



## References

1. L P Brown and A C Long(2021) , <https://doi.org/10.1016/B978-0-12-819005-0.00008-3>, Composite reinforcements for optimum performance (Second Edition)