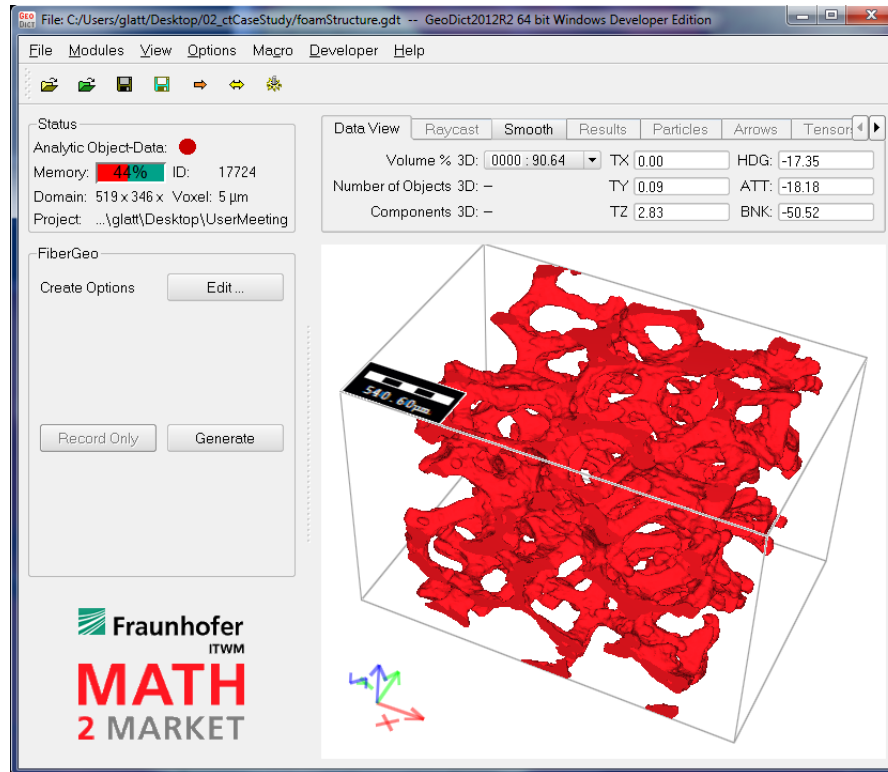

ExportModule

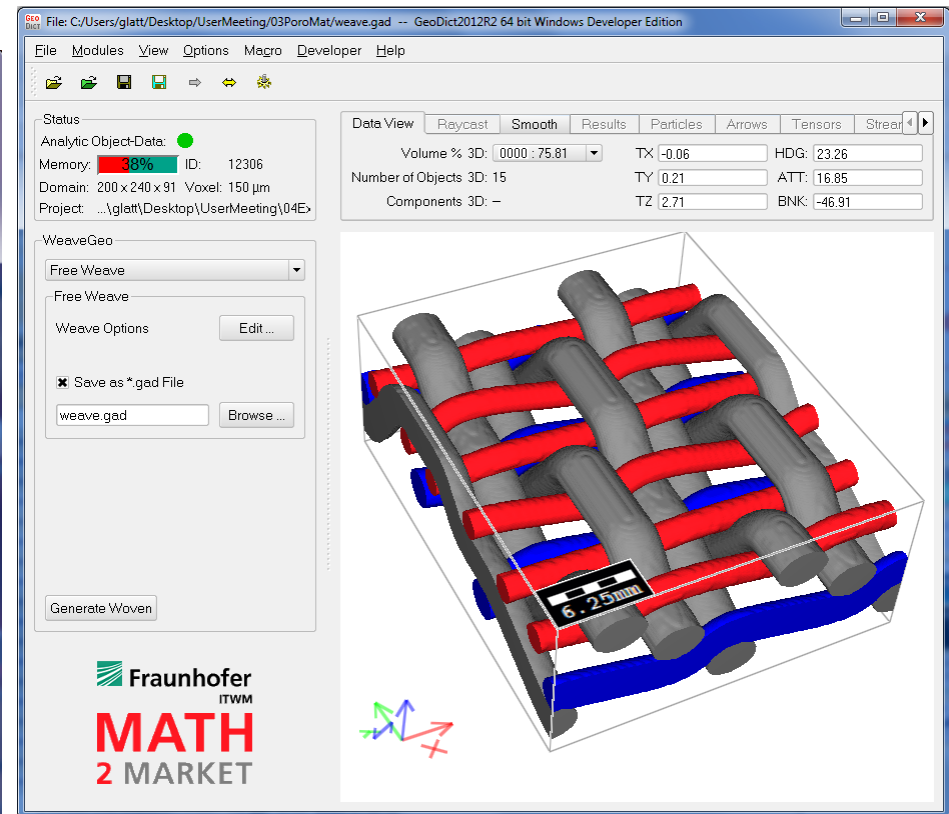
Export GeoDict structures:
Videos, 3d-pdf and CAD formats

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The Examples



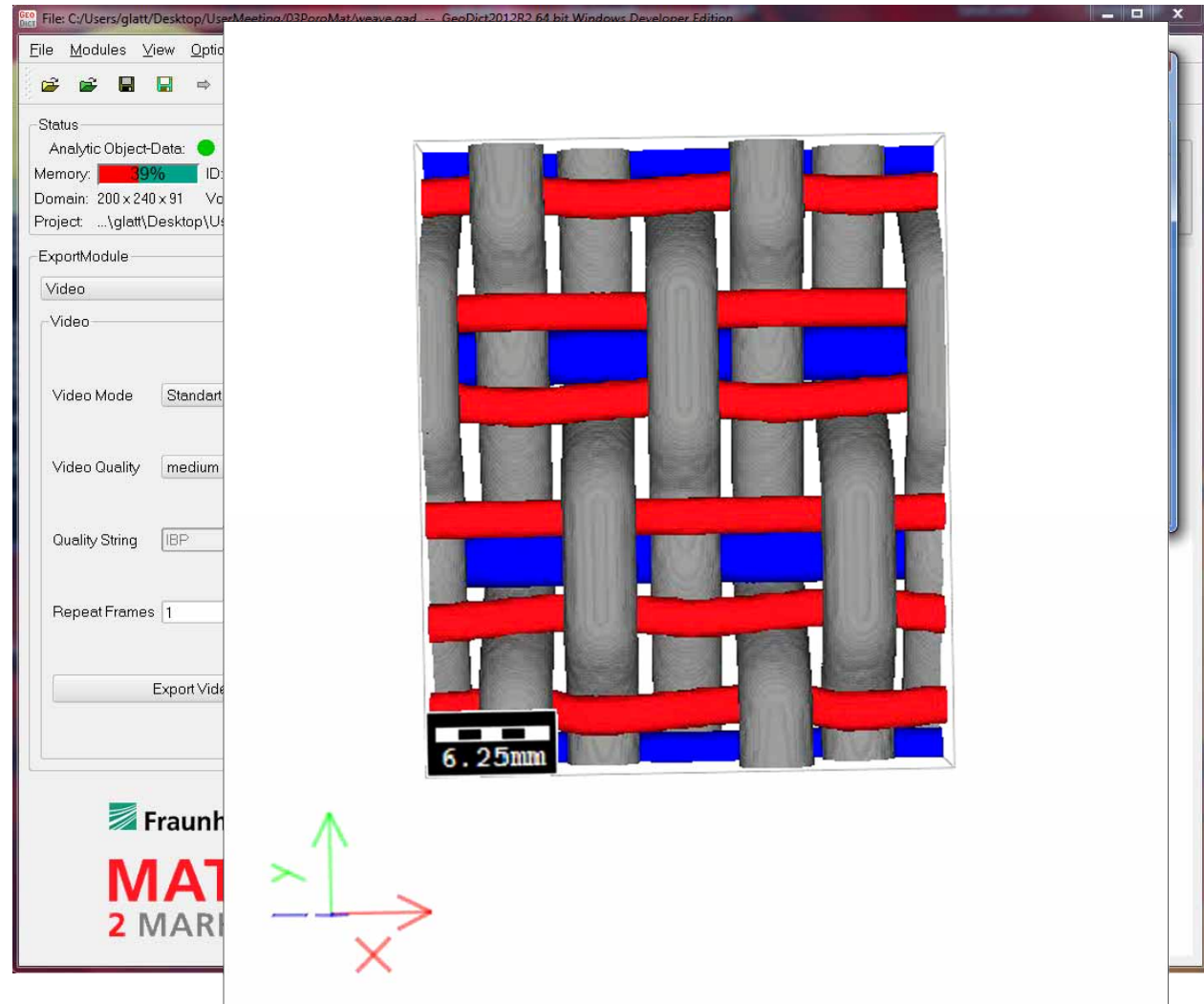
A segmented sponge CT-image



A two-layer weave model

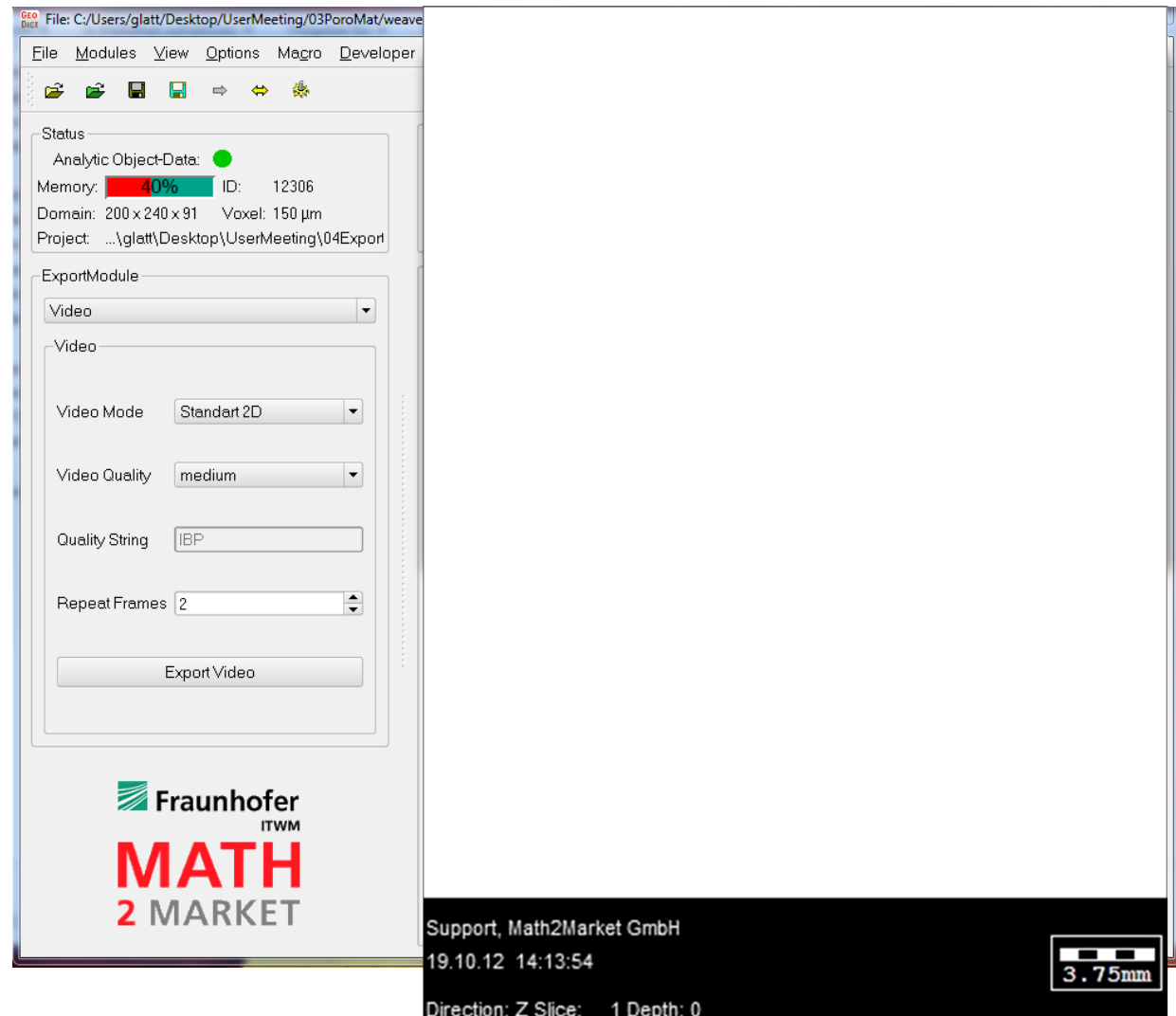
ExportModule: 3d Video export

- Go to the ExportModule and choose “Video”
- Chose the “Video Mode” “Standard 3D”
- Chose the “Video Quality” and ..
- Click “Export Video”



ExportModule: 2d Video export

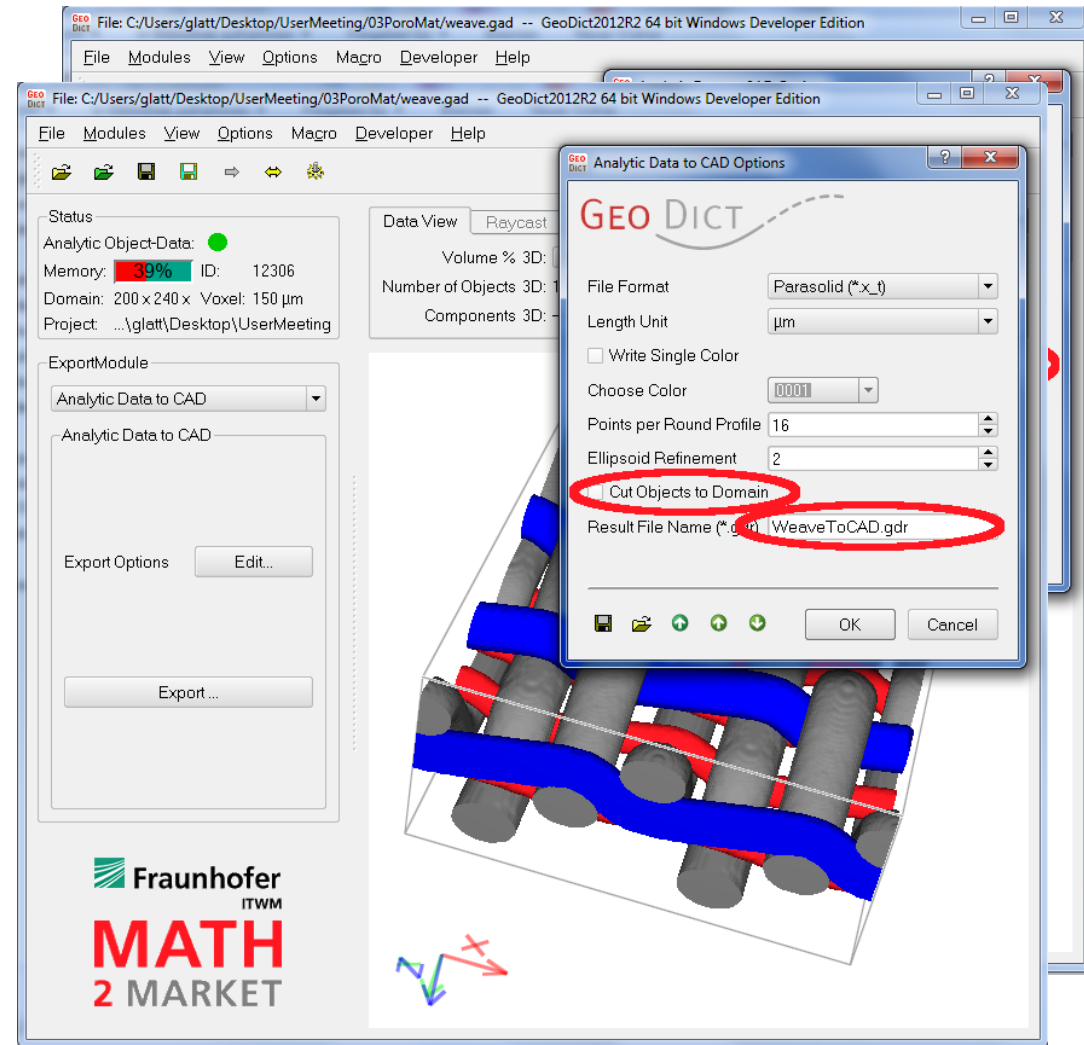
- Go to the ExportModule and choose “Video”
- Chose the “Video Mode” “Standard 2D”
- Chose the “Video Quality” and ..
- Click “Export Video”



Analytic Data to CAD

Needs “green dot” in upper left side of the GUI

- Go to the ExportModule and choose “Analytic Data to CAD”
- Chose the file format *.stl, *.wrl, *.x_t, *.igs, *.sat or *.stp (red: needs CADlook)
- Chose the discretization of the surface triangulation
- Chose if the objects are cut at the domain boundaries
- Chose the result file name
- Export the Geometry ...

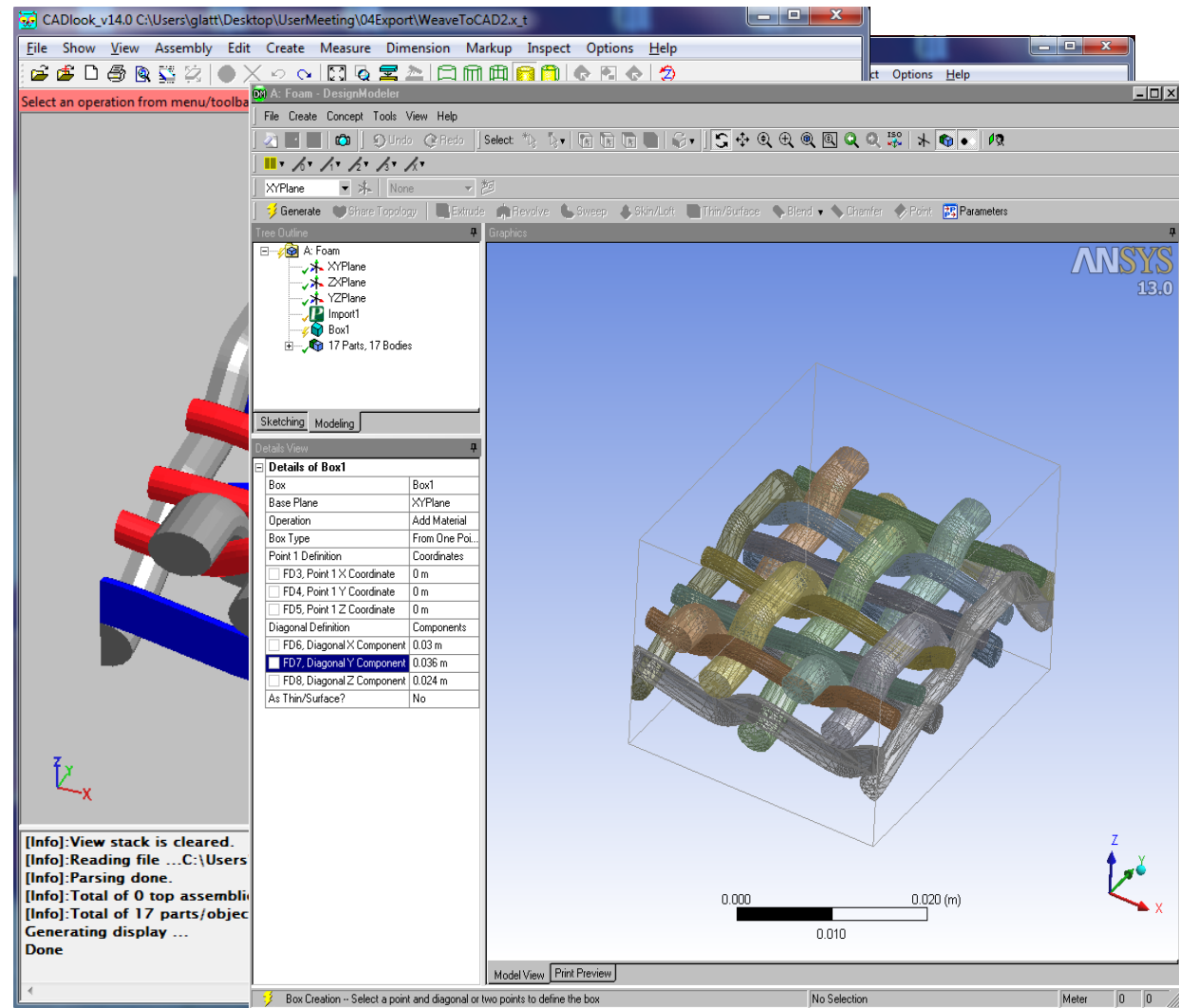


Exported File in Ansys Workbench

The exported GeoDict geometries can be used in other programs...

e.g. Ansys Workbench, but the meshing might be difficult

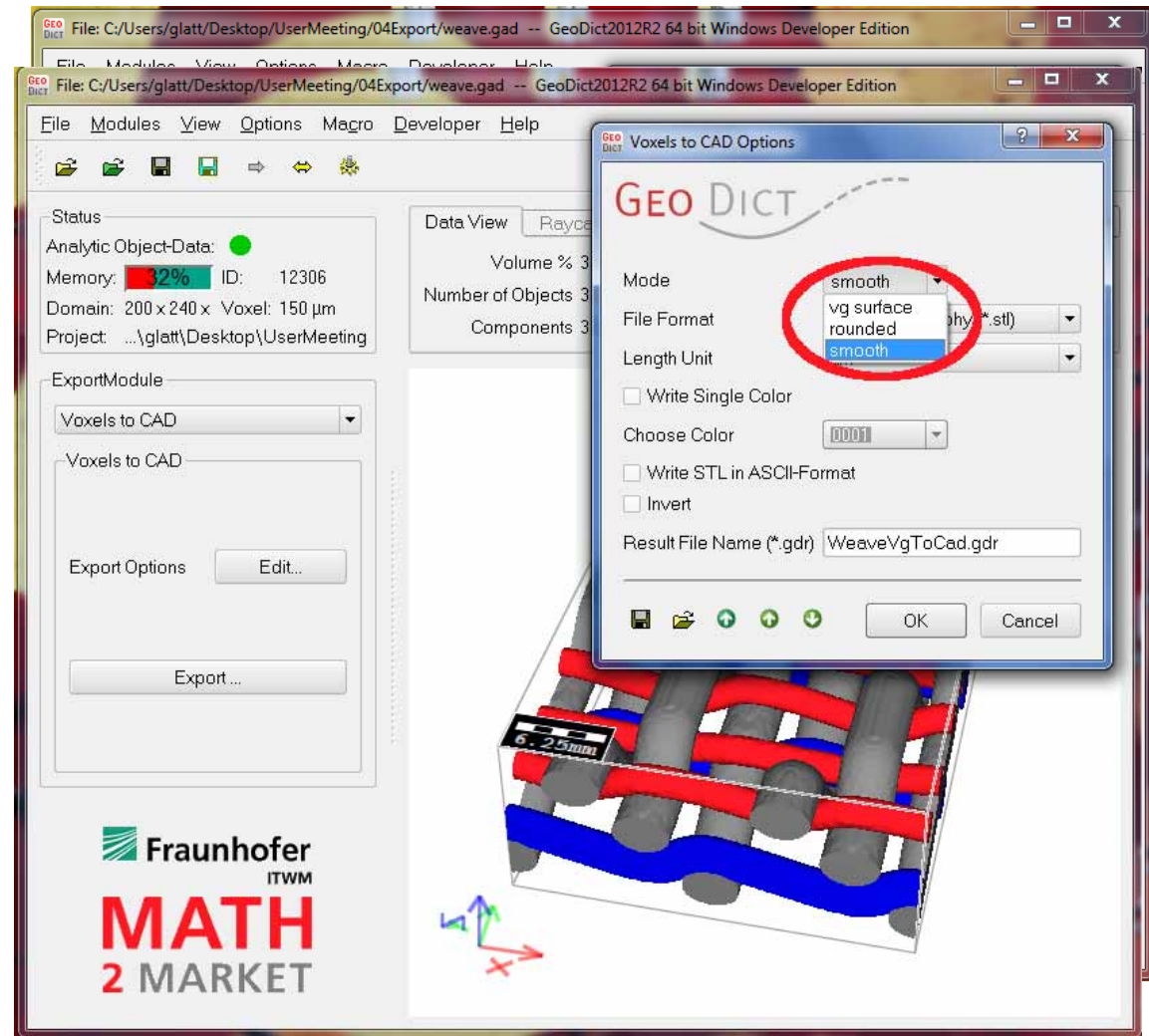
e.g. Adobe Acrobat X Pro to create 3d pdf



Voxel Geometry to CAD 1

Export every voxel geometry
(Model or CT-image)

- Go to the ExportModule and choose “Voxels to CAD”
- Chose the file format *.stl, *.wrl, *.x_t, *.igs, *.sat or *.stp (red: needs CADlook)
- Chose the export mode “vg surface”, “rounded” or “smooth”
- Chose the result file name
- Export the Geometry ...

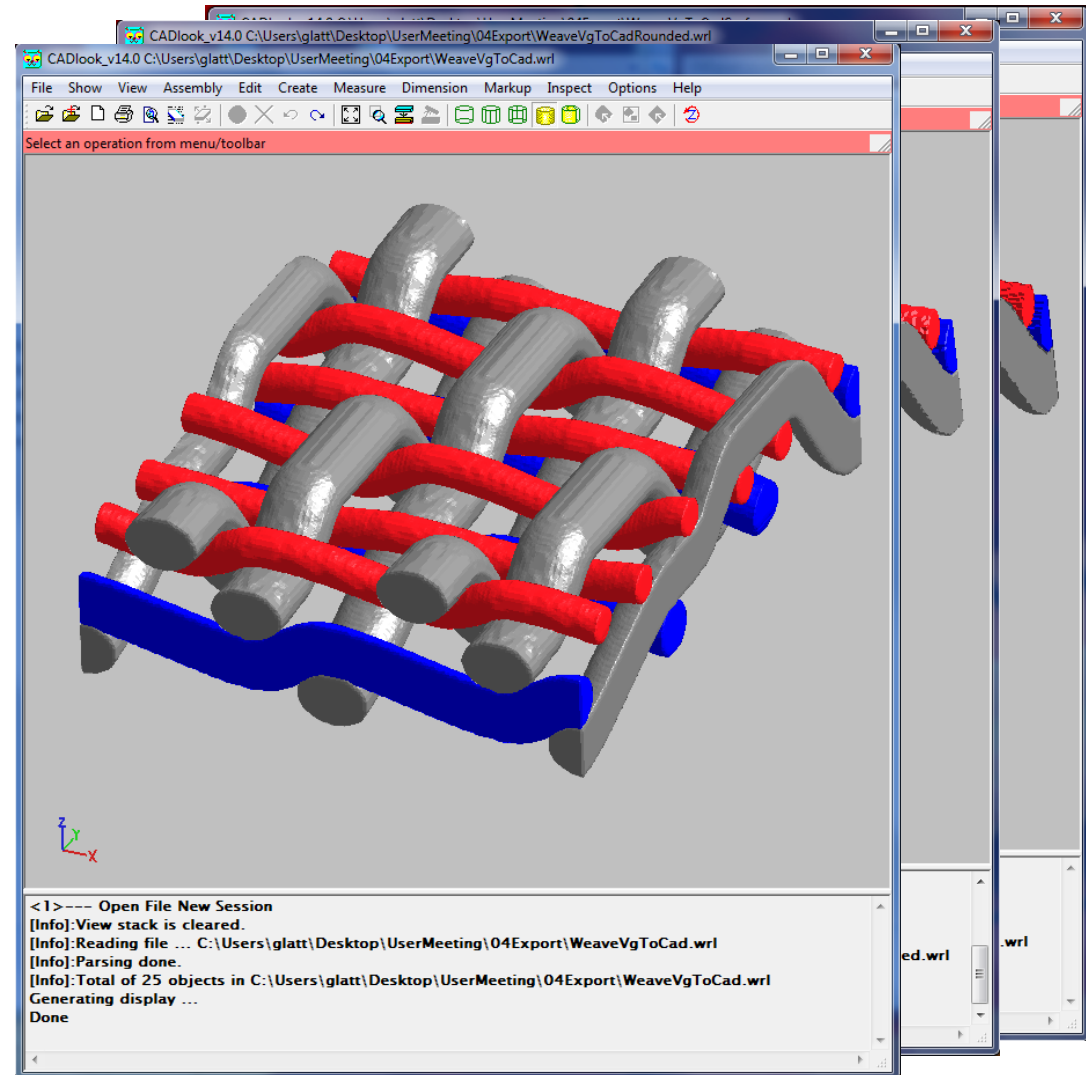


Voxel Geometry to CAD 2

VG surface: exports the surface as visible in GeoDict

Rounded: exports approximated surface with good triangle quality (marching cubes)

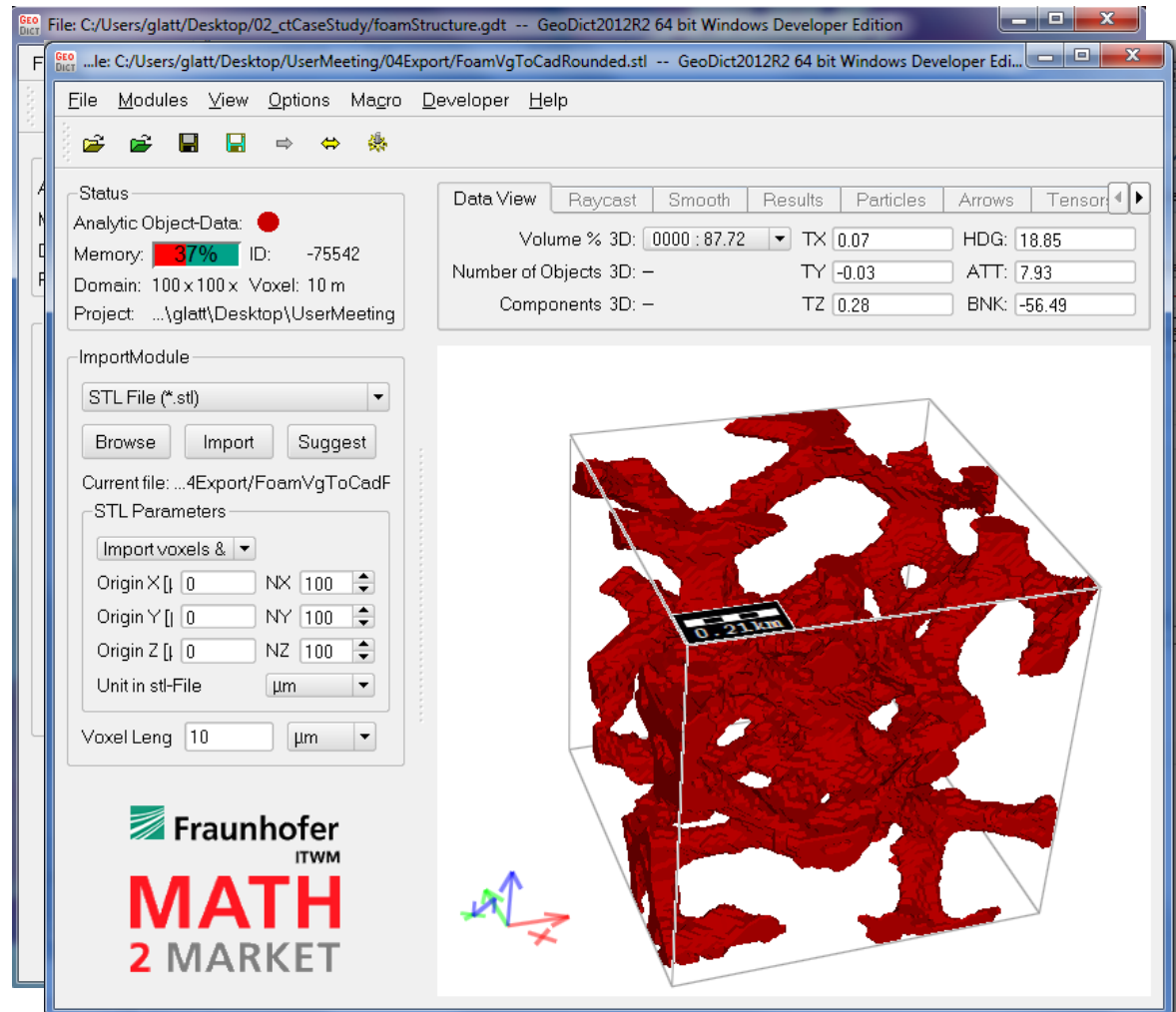
Smooth: exports smooth approximated surface (marching cubes)



Voxel Geometry to CAD 3

Export the segmented CT-image of a foam to *.stl

Import and visualize the resulting stl-file with GeoDict



Conclusions

- GeoDict can export the **analytic representation** of material models to many common **CAD formats**
- GeoDict can export the **voxel geometry** of material models and CT-images to many common **CAD formats**
- For the export to *.x_t, *.igs, *.stp and *.sat CADlook is needed
- An easy way to export standard videos is available in the ExportModule

Outlook

- Further improvements of the CAD export due to customer requirements
- Video export using recorded key-frames