

OmniSurf3D – File Description

version 1.01

The OminSurf3D file structure is an efficient and portable binary file format for handling surface topography data. When available, the overlay image is included in the file as a PNG compressed image.

File Structure:

char[10]	chArrayFileType
Int32	nMajorVersion
Int32	nMinorVersion
Int32	nIdentificationStringLength // 80
char[80]	chArrayIdentification
Int32	nMeasureDateTimeStringLength // 15
char[15]	chArrayMeasureDateTime (“YYYYMMDD-HHMMSS”)
Int32	nPointsAlongX
Int32	nPointsAlongY
double	dSpacingAlongXUM
double	dSpacingAlongYUM
double	dXOriginUM
double	dYOriginUM
float[nY,nX]	fSurfaceMapUM
Boolean	bHasImage
Byte array	imageOverlayPNG

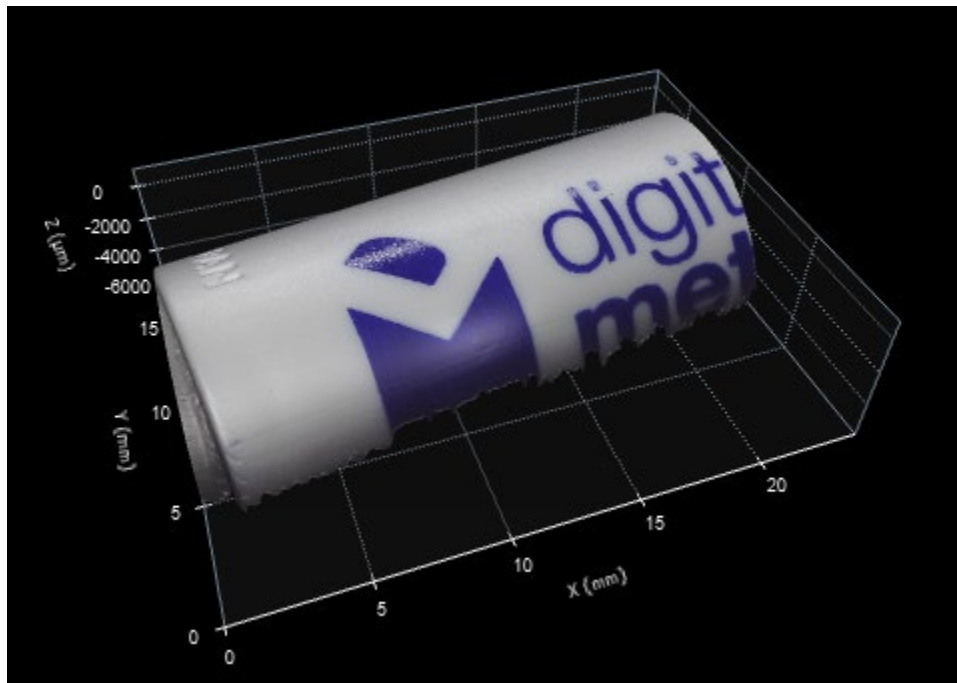
Notes:

- All dimensional values are provided as micrometer units.
- Float values are IEEE 754 single-precision floating point
- Double values are IEEE 754 double-precision floating point
- The Boolean ‘bHasImageValue’ must be provided
 - If bHasImage = 0, there are no additional bytes in the file
 - If bHasImage = 1, the remaining bytes comprise the PNG image\
- The MeasureDateTime string was added with version 1.01

The OS3D file description is available here: [OmniSurf3D-FileFormat-v1p01.pdf](#)

Example C# code for reading and writing OS3D files can be found here: [OS3DAccess-v1p01.cs](#)

An example OS3D data file for this image can be found here: [DigMetPenLogo.os3d](#)



For more information [contact Digital Metrology](#).