Volume Graphics

part of **Hexagon**

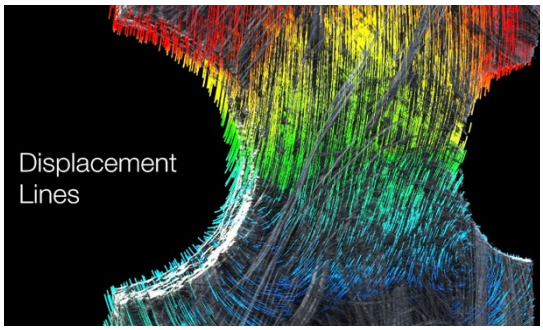
Comprehensive real-world data as a basis for MSC simulation

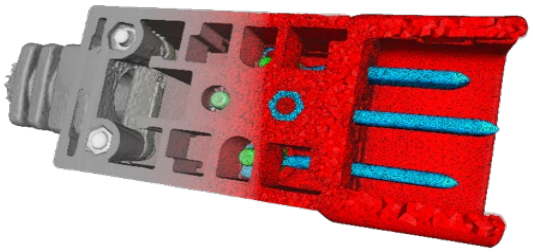
Volume Graphics enables its customers to keep the quality high by getting full insight into their products—from design to serial production. Founded in 1997 and headquartered in Germany, the company has more than 20 years of experience in the development of software for non-destructive testing based on industrial computed tomography (CT). Since 2020, Volume Graphics has been part of Hexagon.

Volume Graphics applications such as the comprehensive CT analysis software VGSTUDIO MAX cover all needs related to metrology, defect detection and assessment, material properties, whether a customer is using the all-encompassing technology of CT or other 3D data formats such as point cloud, mesh, and CAD. Thanks to its modular concept, VGSTUDIO MAX evolves with the needs of the costumer. And with VGinLINE, a ready-to-use framework that relies on the advanced capabilities of VGSTUDIO MAX, customers can semi- or fully automate their quality control process.

CT data provides the basis for the insightful results the Volume Graphics software delivers, as CT non-destructively reveals every aspect of an object. Because CT reconstruction produces a complete representation of an object in 3D from many 2D X-ray images, software such as VGSTUDIO MAX allows the user to draw conclusions on the external and internal structures of the object and its material properties. Thus, the user gets answers to more complex questions. Moreover, the technology of CT is uniquely positioned to fuel simulations with real-world data. In the end, customers can improve their simulations and validate results—all by using CT data analysed with Volume Graphics software.

The **Digital Volume Correlation Module** offers superior support for finding damage in materials using a voxel-based before-after comparison, making it possible to easily export strain tensors with respect to your FEM mesh to validate your FEM simulations.





Use the **Volume Meshing Module** to create accurate and high-quality tetrahedral volume meshes from your CT scans which you can then use for mechanical, fluid, thermal, electrical, and other FEM simulations.

Learn more at: volumegraphics.com