



Harro Höfliger  
Verpackungsmaschinen GmbH

# Rendering for 3D CAD models



**For sales, marketing, and customers, Harro Höfliger needs photographic documentation of its machines in optimal quality. To achieve this, the KeyShot rendering tool is used to generate photo-realistic images from 3D CAD datasets—even from the home office, thanks to Fujitsu.**

## Challenge

Because Harro Höfliger needs seamless documentation for marketing and sales, the company uses the KeyShot rendering tool. This requires decentralized remote access to the application from the data center.

## Solution

Fujitsu helps by providing expert advice with regard to the new GPU rendering function and also supplies test setups of rendering workstations with different processors.

## Outcomes

- High performance of the rendering tool as well as stable and reliable access from remote workstations
- Test setups of CELSIUS workstations provide decision-making support for an optimal solution



**“With Fujitsu as an expert consulting partner, we were able to slash our rendering times from four hours to 40 minutes.”**

Karsten Ehrlich, Director of IT, Harro Höfliger Verpackungsmaschinen GmbH

Industry: **Engineering**  
Country: **Germany**  
Website: **hoefliger.com/en**

People: **550**

### About the customer

As a hidden champion, Harro Höfliger Verpackungsmaschinen GmbH develops and manufactures production and packaging systems for international customers, such as Pfizer and BioNTech. Harro Höfliger is a valued development partner for medical technology and pharmaceutical companies. Also widely known brand manufacturers for consumer and home-care products rely on the process solutions and services.



## 900 million polygons

can be found in the 3D CAD drawing of a complex packaging machine

### Seamless documentation in production is required

Harro Höfliger manufactures innovative and high-quality packaging machines with a high degree of modularity and complexity. To ensure seamless documentation in production, a professional industrial photographer usually takes pictures of the produced equipment. The manufacturer uses the image material for a wide variety of purposes, such as sales, marketing, training, commissioning, maintenance, service, spare parts service and, of course, for the documentation. However, taking photos of some machines is virtually impossible due to their large size or because of a tight schedule. In addition, this process is expensive and time-consuming.

“That’s why we were looking for a more efficient solution for documenting the equipment. We wanted the solution to use more photo-realistic images and fewer 3D CAD drawings,” recalls Karsten Ehrlich, Director of IT at Harro Höfliger. The company has been using the KeyShot rendering tool for this purpose since 2019. The software can seamlessly import CAD models and apply material textures to the individual components. Furthermore, it makes it possible to simulate realistic lighting environments and export photo-realistic renderings as images or videos.

### Complex machine models require high processing performance

It should be noted that KeyShot was not originally designed for rendering on graphics processing units (GPU), but rather for CPU rendering. High computing performance is required for complex machine models with millions of polygons and incorporating photo-realistic lighting and material textures. Tests at Harro Höfliger revealed that even powerful CAD workstations resulted in very long rendering times.

### Comprehensive consultation on all aspects of CPU and GPU rendering

Fujitsu offered valuable support in this respect with an integrated consulting approach, providing Harro Höfliger with comprehensive advice on the new GPU rendering functions introduced in KeyShot Version 9. After all, as with other rendering software solutions, with KeyShot it was also to be expected that not every rendering task could be implemented with the new GPU rendering function and in the desired quality. In addition, the Fujitsu experts made recommendations for comparing GPU and CPU rendering using complex 3D CAD data with up to 900 million polygons. What’s more, Fujitsu implemented various test setups of CELSIUS workstations with different processors and graphics cards. This led to the precise identification of the optimal solution for Harro Höfliger.

“With Fujitsu as an expert consulting partner, we were able to slash our rendering times from four hours to 40 minutes. Rendering allows us to create very high-quality photo-realistic images using 3D CAD datasets. This improves the overall quality of the documentation and makes the process more efficient,” confirms Karsten Ehrlich. The system is hosted in the data center, thus ensuring business continuity at all times by providing remote access to the software from the home office.