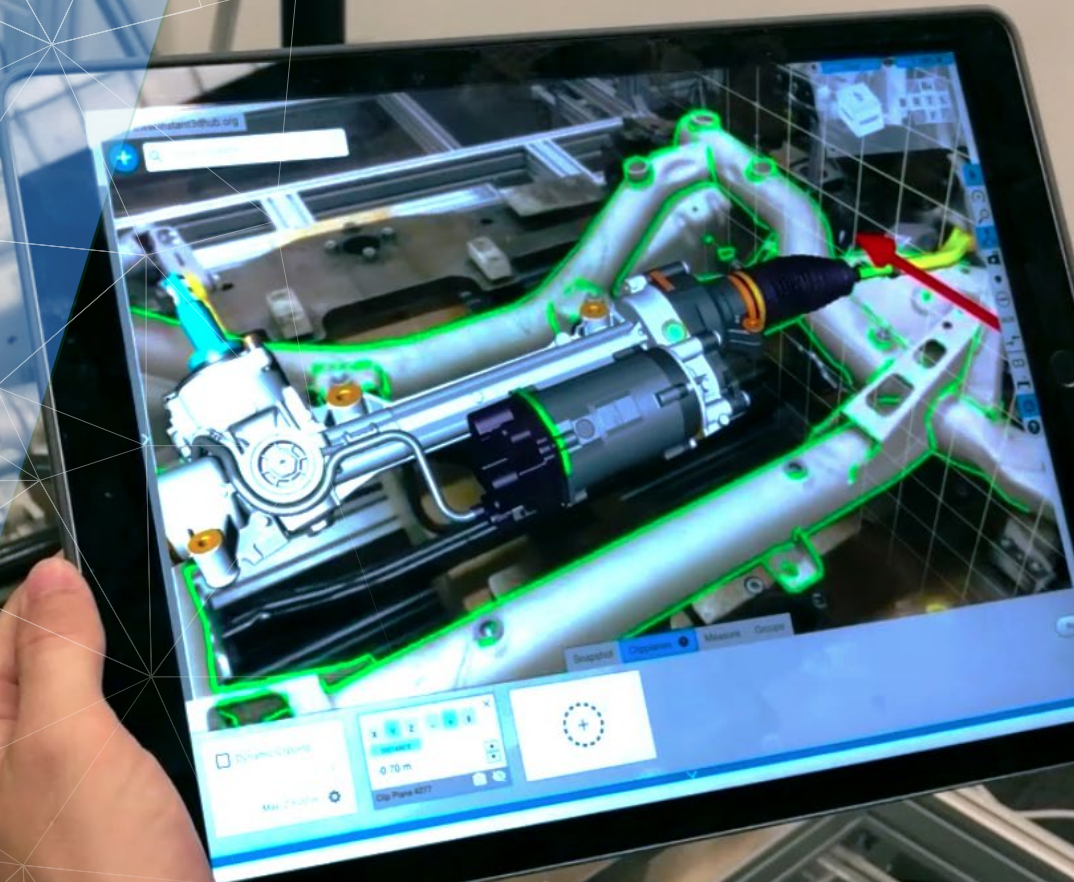


# Augmented Reality

for Variance Analysis



## Augmented Reality for Variance Analysis

In the context of the digital transformation of industrial production lines and cyber-physical systems often construction and manufacturing tasks are executed in parallel. Here, it has to be guaranteed that both worlds, the physical world and its digital counterpart do not differ in geometry.

Augmented Reality offers a high potential for advanced inspection tasks, as an inspection engineer can superimpose CAD-models exactly to the physical configurations. Thereby, advanced user interface concepts for augmented reality can be used to identify and document differences between digital and physical product configurations.

The solutions developed by Fraunhofer IGD uses model-based tracking technologies, that enable to register CAD-models to the objects captured in the camera images in real time.

By distributing the technology into client-server infrastructures, the technology can be used with automated model size reduction and data transcoding services. Interfaces to the PDM systems facilitate the deployment of the technology without the use of fully fledged and complex content preparation pipelines. The technology routinely is used e.g. in automotive industry to verify that components delivered by a supplier exactly fit to their CAD specifications.

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