



Visual Interactive Inspection in Quality Control with Augmented Reality



What is AR Visual Inspection?

Augmented Reality (AR) Visual Inspection is a game-changing technology transforming visual inspection in quality control.

Using AR, operators can overlay CAD Data onto physical objects, creating a new and unique environment for visual inspection.

This innovative approach allows for more efficient visual inspection increasing.

With AR Interactive Inspection, operators can easily identify and diagnose problems, which can help to reduce inspection time, increase productivity.

By bringing the virtual world into the real one, AR opens up a new frontier in quality control and visual inspection.



AR Based Inspection System Main Benefits



Faster Error Detection

SuPAR can identify issues in realtime by using AR technology to take immediate corrective actions. This means that companies can catch problems early, before they become costly and time-consuming to fix.



Minimal Setup Time

Unlike traditional inspection methods traditional visual inspection, this system can be up and running in minutes. Operators can start performing inspections right away, without wasting valuable time on preparation.



Flexible, Digital and Mobile

SuPAR can be used in a wide variety of settings, from manufacturing plants to supplier sites. The flexibility makes it an ideal solution for companies that need to perform inspections in multiple locations.

Standard Drawing Visual Inspection vs. New Augmented Reality Interactive Inspection

4
hours

Visual Inspection with 2D Technical Drawing

Data Preparation takes about **2 hours** with specification, drawings, CAD Model, reference design standard.



Visual Inspection takes **more than 1 hour** with check comparison.

Reporting takes about **1 hour** while combining fulfilling papers and attaching pictures.



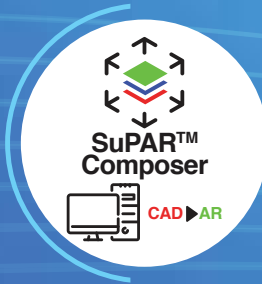
30
minutes

AR Interactive Inspection with SuPAR

Data Preparation takes about **15 minutes** via **SuPAR Composer**.



CAD
model



Checkpoints
for Inspection



Visual Inspection takes about
15 minutes thanks to **AR Interactive
Inspection technology**.

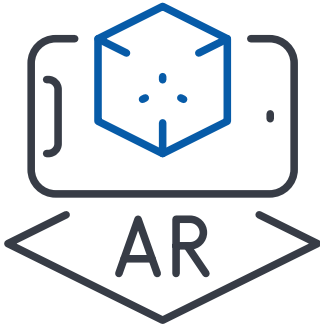
**Reports as PDF, Word and Excel
format** is ready **within seconds**.



Inspection Report

Project Name:
Inspection Name:
Inspection Date:

Visual Interactive Inspection



**SuPAR - the ultimate gamechanger
in visual inspection**



Inspection / Review

Rapid and reliable visual inspections with 3D and paperless capabilities.



Documentation / Reporting

Traceable quality control processes with paperless, thanks to fast and reliable reporting with SuPAR.



Communication

- Flexible, mobile, and remote
- Communication among teams with SuPAR

Benefits of SuPAR AR Interactive Visual Inspection



Saves time up to 80%



Simplifies geometry checks



Provides easy inspection and secure reporting



Saves costs by improving communication



Easy to use by less experienced user



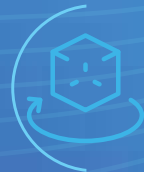
Reduces errors in visual inspection



Allows remote collaboration and support



Increases productivity and reduces downtime



Enables 3D visual inspection



Eliminates the need for paper-based inspection reports



Provides real-time defect recording and reporting

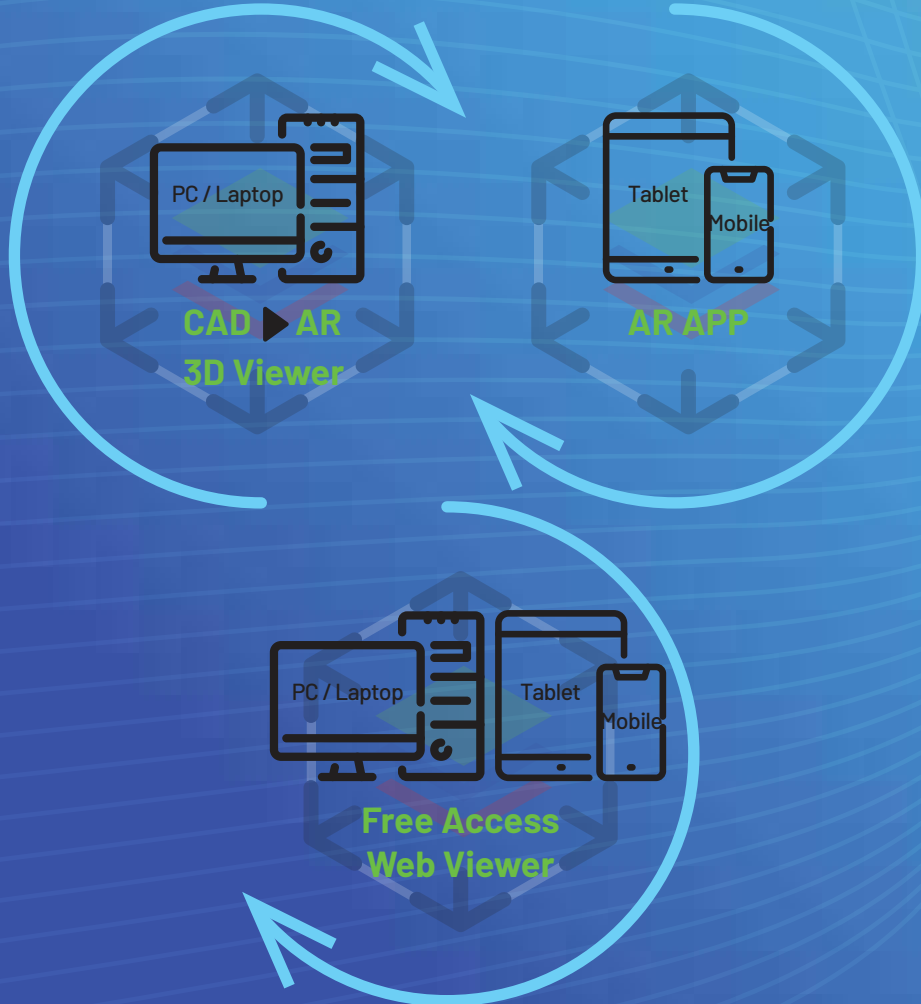


Facilitates flexible, mobile, and remote communication between team members

SuPAR 3in1 Software

SuPAR™ Composer

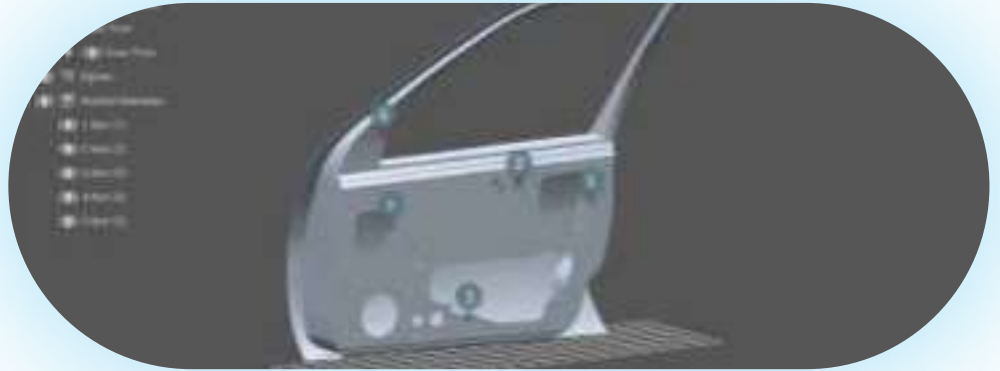
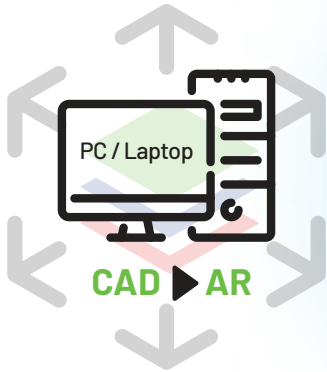
SuPAR™ APP



SuPAR™ Web Viewer

SuPAR Composer

SuPAR™ Composer automatically generates a tracking geometry from the CAD data. This allows for predetermined tracking of assembly components, which can be easily identified during the inspection process. In addition, users can create inspection templates using Composer to guide the inspector, ensuring a comprehensive and efficient inspection process.



Supported file formats:

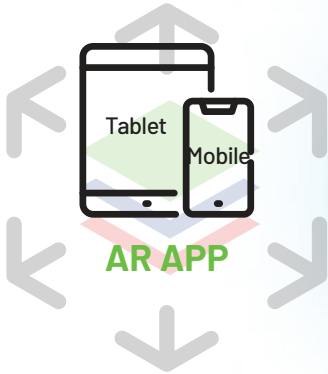
CATIA
PTC CREO
SIEMENS NX
(Unigraphics)
SolidWorks
Inventor

ACIS
Open CASCADE
Parasolid
Rhino

JT
STEP
FBX
STL
VRML
WRL
etc.

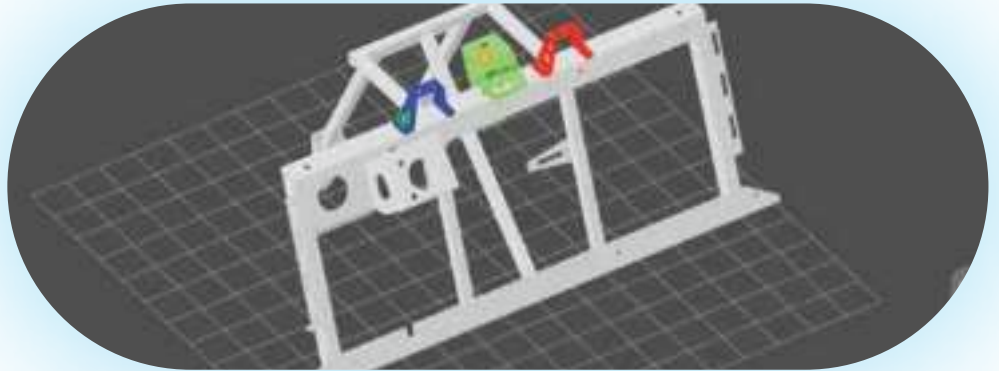
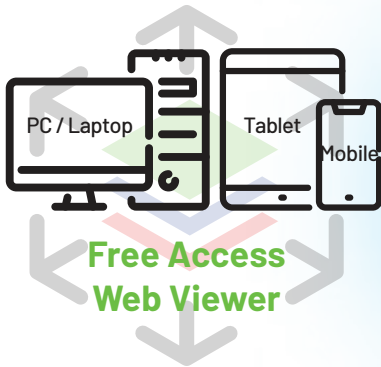
SuPAR App

SuPAR App allows interactive inspection of components by using augmented reality technology. The defects are instantly recorded in 3D format and at the same time reported as digital in PDF and Excel with images and comments for easy analysis and sharing.



SuPAR Web Viewer

SuPAR Web Viewer enables everyone to access and review 3D visual inspection reports for free on any web browser, including mobile devices. It shows all inspection details, such as photos and notes, directly on the 3D model, making analysis and interpretation more accessible.



SuPAR - Application Areas



Tool and Pattern buy-off

Suppliers incoming parts inspection

End of line interactive inspection

Welding and control fixtures assembly
check and maintenance

Welding/assembly elements live
positioning support

BIW targets inspection (E.g. studs, bead, welding spots)

Logistic racks inspection

Gripper and handling units geometry
inspection

Meisterbock and Cubing physical
digital mock-up

Packaging assembly check

Design center model review and presentation





Fixture and jigs assembly and
maintenance geometry check

Fuselage stage 2 assembly check

Engine components geometry visual
inspection (E.G combustion chamber)

Physical Digital Mockup for Assembly process
(Prototypes)



Virtual assembly and design change review
(Additive Manufacturing)

CT data AR visualization
(defect root analysis)



Global Network

SuPA

GERMANY

CDM Tech



EMEA

- Czech / Slo
- Fin / Norway / Sweden
- France
- HR, SI, RS
- Italy
- Poland
- Portugal
- Romania
- South Africa
- Spain
- Turkey
- U.K. / Ireland



AMERICAS

- Brazil / ARG
- Mexico
- U.S.A.



APAC

- China / Hong Kong
- India
- Japan
- Singapore
- South Korea





SuPAR™



for more information