Visual Interactive Inspection in Quality Control with Augmented Reality



SuPAR™

www.supar.eu

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 detect problems early, before they become costly and time-consuming to fix.

Minimal Setup Time

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





Flexible, Digital and Mobile

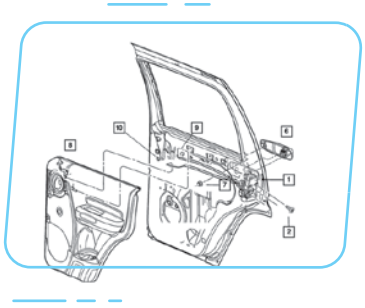
SuPAR can be used in a wide variety of settings, from manufacturing plants to supplier sites. The flexibility makes it an ideal solution for companies that need to perform inspections in multiple locations.

Standard Drawing Visual Inspection vs. New Augmented Reality Interactive Inspection

3 hours

PAST

Visual Inspection with 2D Technical Drawing



Data Preparation takes about **1 hour** 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.

PRESENT

30 minutes

AR Interactive Inspection with SuPAR

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



CAD model

SuPAR™ Composer

CAD ▶ AR

Checkpoints for Inspection





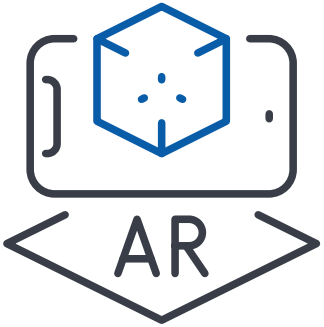
Visual Inspection takes about **15 minutes** thanks to **AR Interactive Inspection technology.**

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

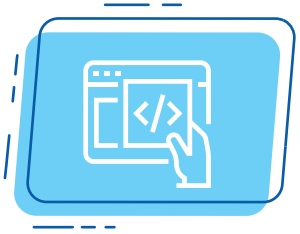
Inspection Report

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

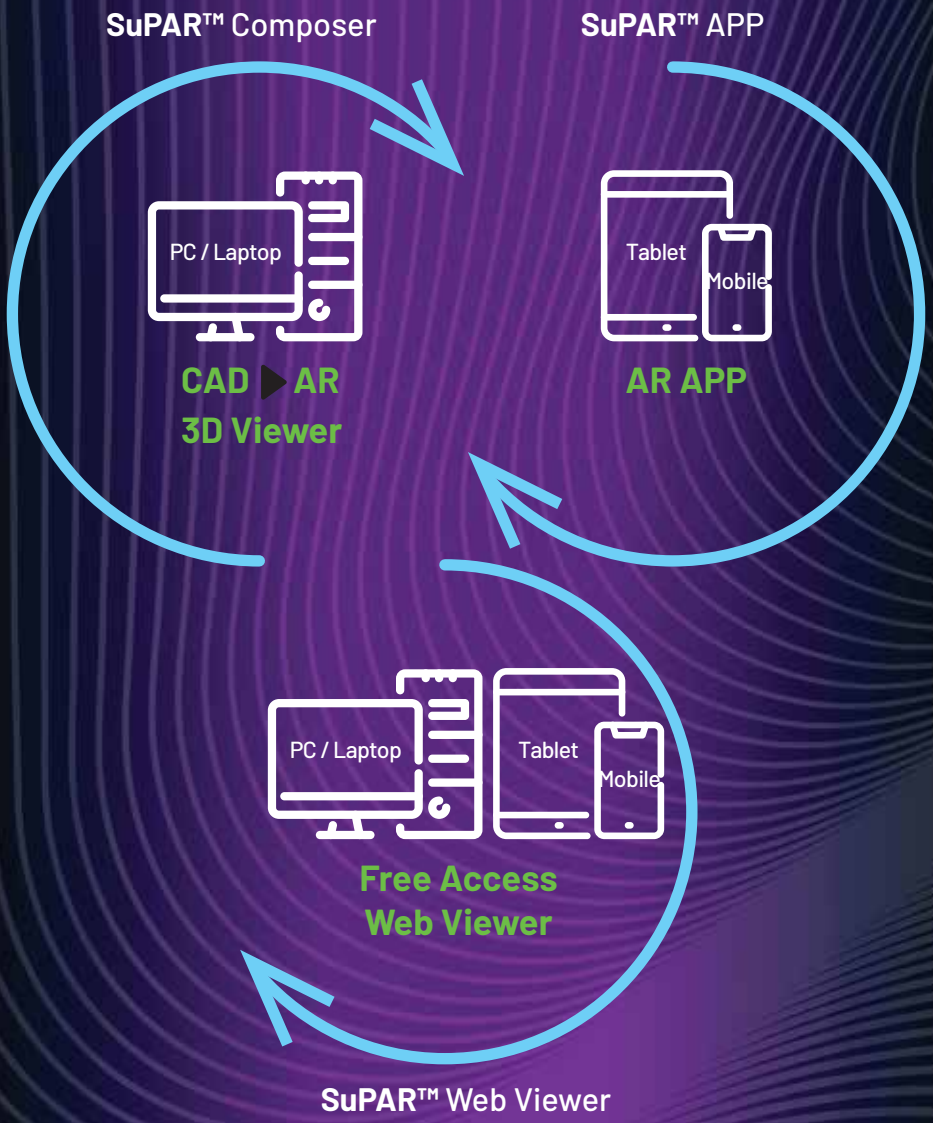


Provides real-time defect recording and reporting



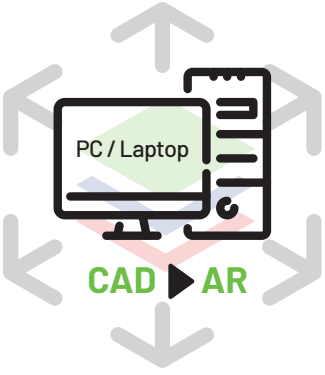
Facilitates flexible, mobile, and remote communication between team members

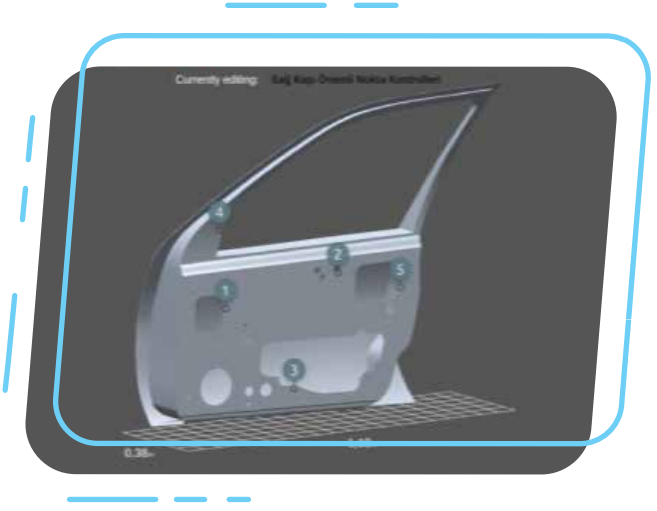
SuPAR 3in1 Software



SuPAR Composer

SuPAR™ 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.



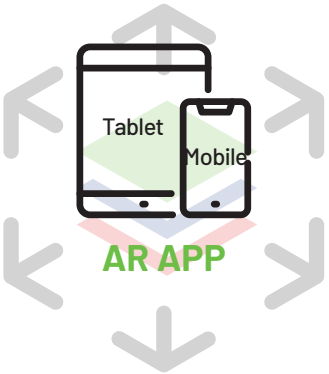


Supported file formats:

CATIA	ACIS	JT
PTC CREO	Open CASCADE	STEP
SIEMENS NX (Unigraphics)	Parasolid	FBX
SolidWorks	Rhino	STL
Inventor		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.

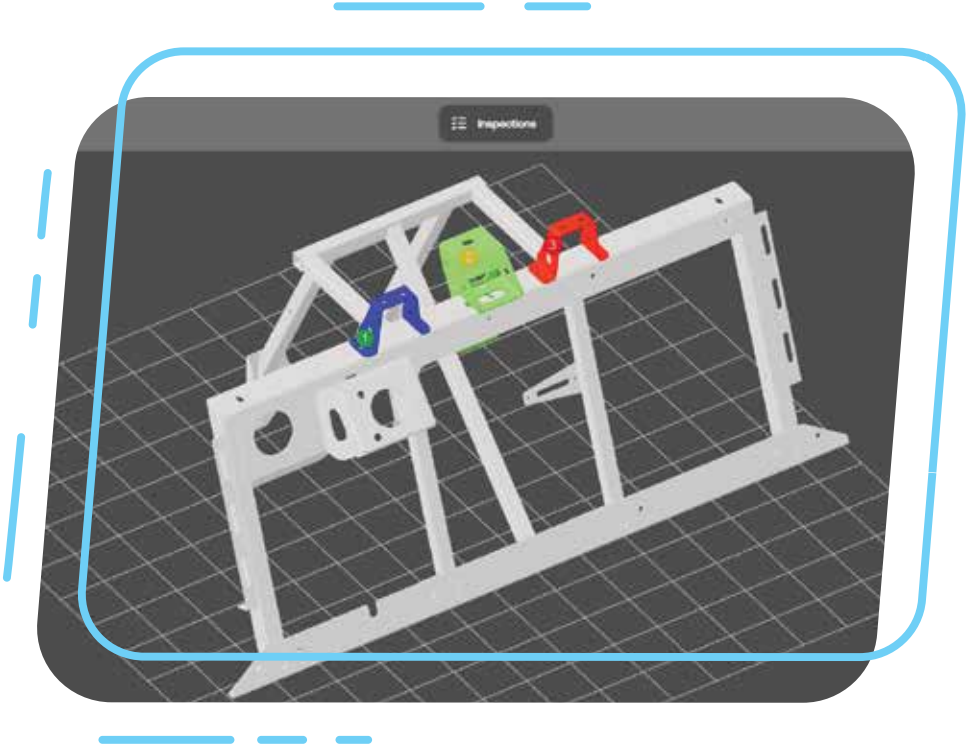




SuPAR Web Viewer

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 - Industries

- Automotive
- Transportation
- Agricultural Machinery
- Construction Machinery
- Heavy Industry
- Energy
- Mining and Extraction
- Aerospace & Defence
- Injection Moulding

SuPAR - Application Areas



Tool and die 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)



Revolutionize Your Quality Control with Augmented Reality



Your shop floor genius

It's like having a visual quality control expert in your hands. Just point your tablet, and watch as defects are highlighted instantly. From spotting defects to ensuring completeness, SuPAR simplifies it all. Say goodbye to manual checks, paperwork and hello to real-time insights and digital efficiency, anytime, anywhere. It's the ultimate AR tool for modernizing your visual inspection process.

Your assembly guide planner

With augmented reality, it visualizes parts placement and assembly procedures. Imagine effortlessly guiding your assembly line workers with tablet. Perfect parts placement, flawless assembly. Boost efficiency, minimize errors. Elevate your production process.





Automated inspection with artificial intelligence

With its purpose made AI modules SuPAR automates repetitive tasks to save time and reduce errors. Each step of inspections are recorded for later evaluation and review. Thus, digital reports for each part supports your digital transformation journey. SuPAR innovates and incorporates the latest technologies and trends into the workflow of its users, enhancing their efficiency and enabling them to leverage the state-of-the-art technology developed for their business.

Areas of Use

Body in White (BIW) Visual Inspection



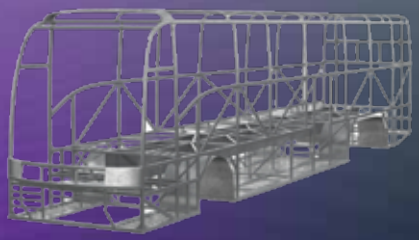
Fixture Maintenance and Inspection



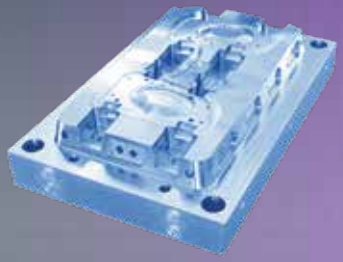
Incoming Quality Control



Welded Constructions Visual Inspection



Mold&Die Inspection



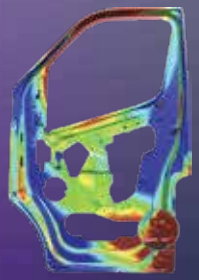
Logistic Rack Visual Inspection and Maintenance



Injection Mold and Plastic Part Inspection



Visualization of Surface Measurement Report



Global Network

SuP

GERMANY

CDM Tech

EMEA

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



AR ™

AMERICAS

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

APAC

- Australia
- China / Hong Kong
- India
- Japan
- Korea
- Singapore
- Thailand



SuPAR™



for more information