DeepQ

The AI and data solution created for automotive quality management

Solution co-created in partnership with IBM.

Address quality problem solving with speed and efficiency never seen before through our generative AI solution.

Overview

DeepQ is a valuable AI tool for optimizing 8D Reports in the automotive industry. By analysis data with the latest AI technologies, it facilitates the rapid identification of root causes, corrective and preventive actions. Thus, contributing to the development of creative and effective solutions, improving documentation and communication processes, and supporting staff training. This approach not only increases problem-solving efficiency, but also enhances quality and customer satisfaction.

Main capabilities

- **Automating data analysis:** DeepQ analyzes historical data such as quality records and incidents to identify insights that could indicate the root cause of a problem, as well as potential corrective and preventive actions.

- **Diagnostics:** Using deep learning techniques, our AI solution can increase the problem prevent rate by suggesting more effective containment measures.

- **Idea generation:** By using text generation algorithms, the system can propose creative human-like solutions, offering a variety of options based on similar situations solved in the past.

- **References to original documents:** When providing solutions, DeepQ includes links and references to the original reports, allowing users to easily access and verify the underlying data.

- **Integration and communication between teams without language barriers:** This AI solution facilitates communication and collaboration between multidisciplinary teams by incorporating a powerful translator, making chat conversations understandable in all languages and countries, ensuring that the right information reaches the right people at the right time, without interference.

Connect your business and streamline your

quality processes, leaving manual methods behind.

AI Shepherds | IBM Silver Partner

Benefits

The integration of **DeepQ** into the 8D Reports process offers a number of direct benefits that you cannot ignore. These benefits are primarily focused on improving operational efficiency and problem-solving accuracy. Through automation of repetitive tasks and advanced data analysis, companies can experience significant reductions in response times, increased diagnostic accuracy, and more consistent and detailed documentation. These advances contribute not only to the optimization of resources, but also to an increase in the overall quality:

Reduced response times
Automation in analysis allows faster identification of the causes of problems and accelerates the resolution process.*

Improved diagnostic accuracy
Advanced algorithms can provide more accurate and consistent diagnoses, minimizing human error in root cause identification.
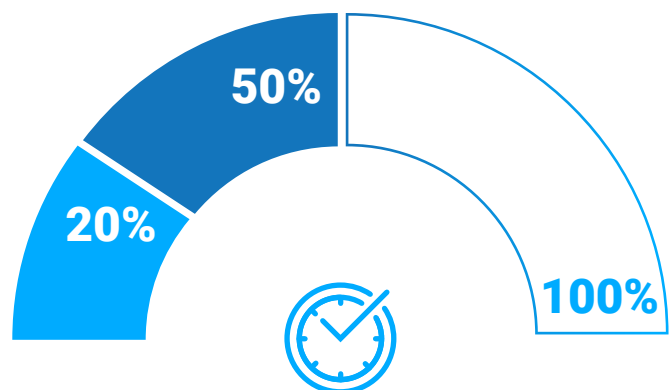
Resource optimization
By reducing the amount of time and human effort required for each report, available resources are optimized, allowing staff to focus on higher value-added tasks.

Conversation as with an expert
Find relevant solutions instantly, as if you were talking to one of your most experienced colleague.

*The improvement in response time reduction through **DeepQ** in 8D Reports processes can vary from 20% to 50% depending on several factors, including the complexity of the issues addressed, the existing technology infrastructure, and the quality of the data available. **In cases where the implementation is highly optimized and the data is of high quality, the improvements could be even greater.**
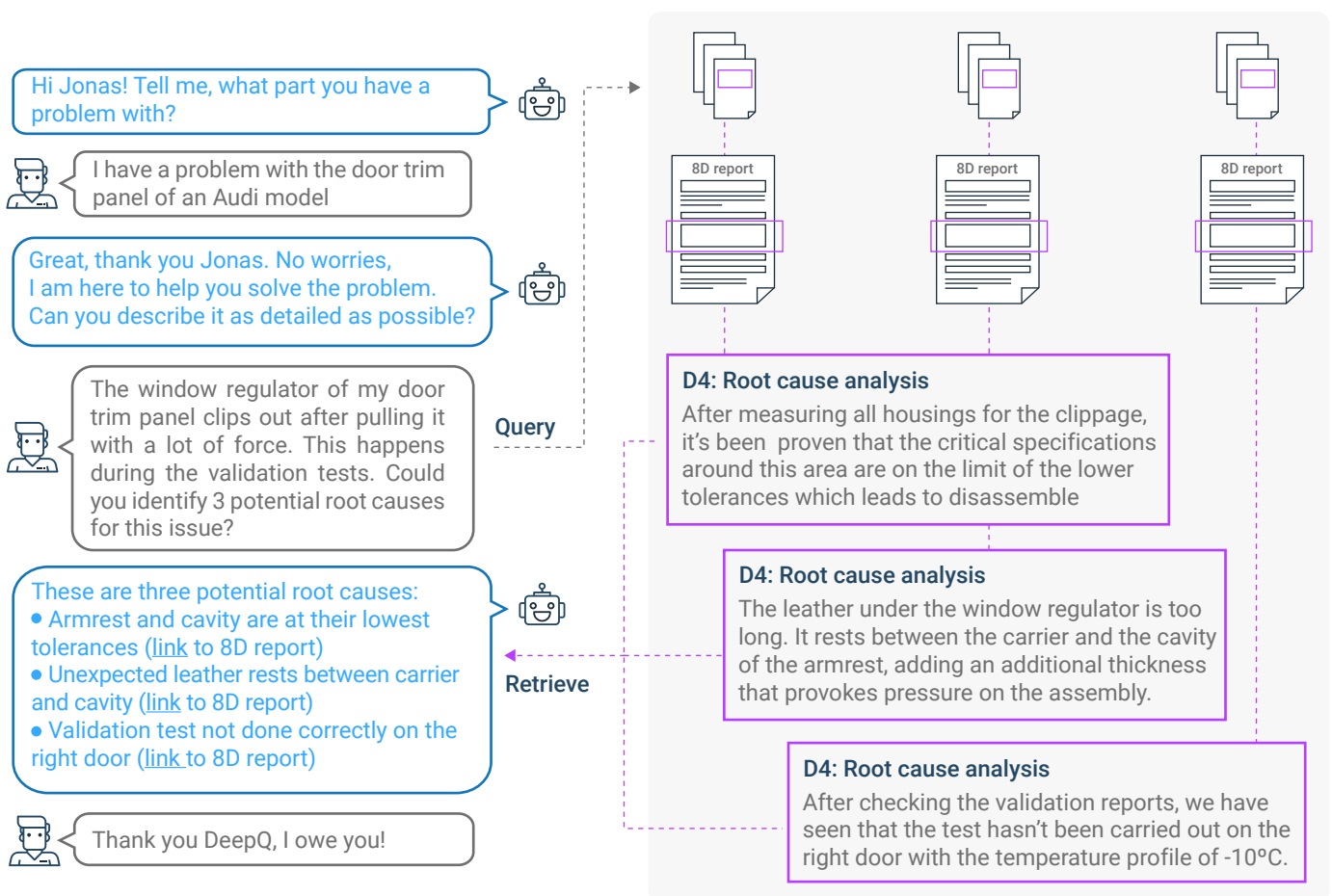
50%

20%

100%

Solution

8D Reports primarily help to identify, correct and prevent quality issues. Nonetheless, it can be tedious manual process. Now with **DeepQ** say goodbye to a troublesome task:

How it works

1 **Issue description:** The process starts when a person in charge of the 8D Reports describes in their own words the current problem through the DeepQ chat interface.

2 **Data mining:** Once the issue is described, a semantic search on the historical 8D reports is carried out, extracting relevant solutions that match the current problem.

3 **Solution generation:** Leveraging extracted insights, DeepQ uses a connected LLM to produce human-like proposals, enabling interactive dialogues with users through an advanced and intuitive chat interface.

4 **Link to documents:** The recommended solutions are accompanied by links to the main documents used in the analysis.

Hi Jonas! Tell me, what part you have a problem with?

I have a problem with the door trim panel of an Audi model

Great, thank you Jonas. No worries,
I am here to help you solve the problem.
Can you describe it as detailed as possible?

The window regulator of my door trim panel clips out after pulling it with a lot of force. This happens during the validation tests. Could you identify 3 potential root causes for this issue?

Query

These are three potential root causes:
• Armrest and cavity are at their lowest tolerances (link to 8D report)
• Unexpected leather rests between carrier and cavity (link to 8D report)
• Validation test not done correctly on the right door (link to 8D report)

Retrieve

Thank you DeepQ, I owe you!

8D report　　　8D report　　　8D report

D4: Root cause analysis
After measuring all housings for the clippage, it's been proven that the critical specifications around this area are on the limit of the lower tolerances which leads to disassemble

D4: Root cause analysis
The leather under the window regulator is too long. It rests between the carrier and the cavity of the armrest, adding an additional thickness that provokes pressure on the assembly.

D4: Root cause analysis
After checking the validation reports, we have seen that the test hasn't been carried out on the right door with the temperature profile of -10ºC.

DeepQ vs Traditional methods

This comparative analysis highlights how our AI solution can significantly improve various aspects of the 8D Reports process, especially in terms of efficiency and accuracy, compared to traditional methods that rely more heavily on human intervention and skills:

Main aspects	Traditional methods	DeepQ
Response time	Longer due to manual processes (days).	Significantly reduced through automation (hours or even minutes).
Resources optimization	Labor-intensive and time-consuming.	Efficient in resources, allowing reallocation of efforts.
Diagnosis	May be inaccurate due to human limitations. Subjective.	Data-driven with continuous learning. Objective.
Data handling	Manual extraction of insights in scattered documents.	Centralized data access, automatic retrieval.
Language limitations	Language barriers can slow down process.	Multi-language support enhances global access.
Information retrieval	Prone to inconsistencies and missing information.	Automatic, detailed and consistent.
Solution generation	Limited to individual experience and creativity.	Generation of multiple potential solutions based on historical data.

Without quality, nothing else matters

AI Shepherds | IBM Silver Partner

Next steps

Artificial intelligence is transforming the way organizations solve problems. No matter where you are in your AI journey, we invite you to participate in a **DeepQ** demo along with one of our experts who will help you visualize the opportunities to drive your business forward, **in action**.

Is this demo right for you?

This demo is suitable for you if any of the following conditions apply:

- You are a decision maker or influencer, such as a senior manager, director, VP, president, or C-level related to quality management.
- You are interested in learning how this technology can transform and improve the problem-solving process to achieve quality objectives.
- You are willing to receive individualized attention from an AI expert for 45 minutes.

What can you expect from this demo?

If your demo request is accepted, you can expect the following:

- Demonstration of technology in action.
- Understanding value added.
- Clarification of doubts.
- See next steps for technology adoption.

Use the "*Book a demo now*" button to receive more details about the product.

Book a demo now

AI Shepherds | IBM Silver Partner

Future progress

Coming soon: Using AI to leverage 8D reports is just the start. Our vision for **DeepQ** is to centralize all quality-related data—FMEAs, lessons learned, manuals, audits, and more—into a single sage platform.

About us

AI Shepherds GmbH is a company founded on the 30th or April 2021 in Munich. With the vision to become the most trustworthy face of AI with the greatest impact on society, AI Shepherds is focusing its efforts in guiding organizations in the automotive industry (and their respective areas), in their AI transition towards efficiency and differentiation through responsible AI. Our headquarters are in Munich (Germany) and our development hub in Madrid (Spain).

Contact information

AI Shepherds GmbH

sales@aishpherds.com

+49 176 7535 8616

Munich, Germany

Visit us on: