Accessing **Expertise On-the-Spot** Using **Augmented Reality**

Scaling Expert Knowledge in Manufacturing & Service with Augmented Remote Assistance

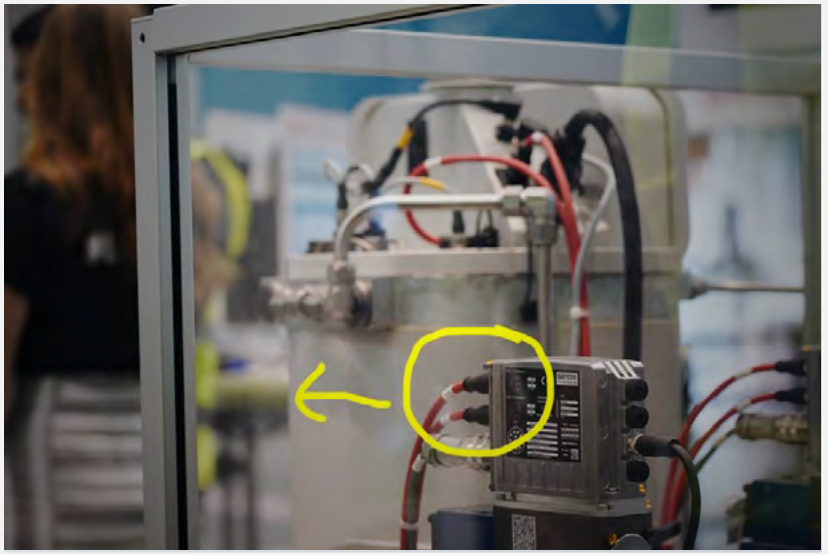
In the past, complex products, insufficient resources, and limited employee expertise created roadblocks to even the simplest day-to-day tasks on the factory floor and in the field.

Due to these challenges and a lack of on-the-job experience, newer employees struggled with productivity. Today, factory operators and field technicians at any level of experience can solve problems easily and efficiently with **augmented reality (AR).** Using augmented remote assistance to replace less-effective, traditional collaboration tools, frontline workers need only their mobile, tablet, or headset device to more efficiently communicate and collaborate with experts in real-time.

Explore manufacturing and service use cases to discover how augmented remote assistance empowers inexperienced frontline workers to tackle any challenge the right way, the first time.

Augmented remote assistance

uses AR collaboration tools to connect SMEs with field technicians for real-time guidance. Using a shared view, SMEs and technicians make annotations that stick to physical objects.



MANUFACTURING **BEFORE** AUGMENTED REMOTE ASSISTANCE:

LOW COLLABORATION AT A HIGH COST

When an inexperienced factory operator faces an unexpected challenge on-the-job, they usually have four options: consult work instructions, ask a subject matter expert in-person, reach out to a remote expert via phone call, video call, or email, or rely on a remote expert to solve the issue at a regional factory or site—but they run into roadblocks with each potential solution. Work instructions aren't always comprehensive enough to cover every possible problem, subject matter experts often don't have the time to provide in-person guidance, video calls or even detailed photos sent via text or email lack critical context, and on-site visits take time and ramp up travel costs.

As a result of these limitations, the factory operator can't solve the issue at hand in a timely and effective way. At this point, industrial enterprises risk their productivity, quality, and even employees' safety.

Travel Restrictions and Limited Access to Experts at **Henkel**

For Henkel, a chemical and consumer goods company, regular communication between on-site product specialists and external experts is critical for production teams. But when the pandemic made their frequent travel impossible, Henkel faced an urgent need to keep these colleagues connected—with their productivity, safety, and operational costs on the line.

MANUFACTURING **AFTER** AUGMENTED REMOTE ASSISTANCE:

SEAMLESS, OUT-OF-THE-BOX COLLABORATION

Today, factory operators leverage augmented remote assistance to engage with experts live by creating real-time digital annotations on a shared view of their physical work environment. When presented with a problem, operators now have contextualized expert knowledge in the palm of their hand, which can help them bypass the obstacles of traditional communication approaches. When frontline workers and subject matter experts are more productive, the entire business benefits—seeing reduced downtime, shorter maintenance time, and fewer safety incidents. Empowered to collaborate with their team and find answers to both new and common problems on the spot, operators realize improved confidence and job satisfaction.

Augmented Remote Assistance in Action at **Henkel**

Today, augmented remote assistance connects frontline workers at Henkel with experts to work through issues at any time. Through real-time collaboration with visual context, 200+ employees resume the frequent knowledge transfer that was always key to their daily operations. Augmented remote assistance using existing laptops and smart devices has made travel restrictions and roadblocks irrelevant. As a result, Henkel reduced their operational costs and improved their productivity and safety—all without purchasing or implementing extra equipment.

SERVICE **BEFORE** AUGMENTED REMOTE ASSISTANCE:

HIGH ATTRITION AND LOW CUSTOMER SATISFACTION

Today's technicians service highly complex products. Armed oftentimes with uncomprehensive training materials to complete repairs effectively and efficiently, technicians' first-time fix rate (FTFR) suffers—leading to increased truck rolls, SLA breaches, and poor customer satisfaction scores. Meanwhile, long hours and travel obligations lead to increased attrition among field technicians. The resulting skills gap puts pressure on subject matter experts to travel on-site, taking them away from their day-to-day jobs and increasing customer downtime.

Travel Bans During Planned Customer Downtime at **Rockwell Automation**

When travel restrictions ramped up through the beginning of the pandemic, Rockwell Automation, a leader in industrial automation and digital transformation, realized they wouldn't be able to send their full team of technicians to provide on-site customer service through a planned downtime event. If their plans were to fall through, the customer risked losing significant revenue.

SERVICE **AFTER** AUGMENTED REMOTE ASSISTANCE:

MORE EFFICIENT REPAIRS FOR HAPPIER CUSTOMERS

Today, SMEs leverage AR to walk field-based colleagues through repairs in real-time, from anywhere, reducing truck rolls and travel costs—and boosting technician job satisfaction. Faster overall problem-solving improves FTFR and reduces mean time to repair (MTTR), leading to happier customers.

Augmented Remote Assistance in Action at **Rockwell Automation**

In preparation for their customer's service event, Rockwell Automation decided to send just one field service engineer on-site to work on the machine. Though experienced, the engineer was still unfamiliar with the new machine, so Rockwell equipped him with augmented remote assistance on his mobile device. The engineer was able to connect with remote Rockwell experts while on-site, completing the machine changeover effectively and efficiently.

Scale Your Experts' Knowledge Across the Enterprise

Whether you're looking to optimize plant floor operations or streamline your service strategy, scaling expert knowledge through augmented remote assistance empowers frontline workers—improving productivity, efficiency, and customer satisfaction. A leading augmented remote assistance solution, **Vuforia Chalk** combines advanced computer vision technology, real-time communication, and annotations that stick to real-world objects. Take the next step in your AR journey and learn how augmented remote assistance through Vuforia Chalk can help you realize your goals—today and in the future.

LEARN MORE ABOUT VUFORIA CHALK →

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