



VUFORIA CHALK

EXPERT SUPPORT AT SCALE WITH AR REMOTE ASSISTANCE

Quickly scale problem-solving guidance, support and expertise to your factory operations & service teams with augmented reality. Vuforia Chalk is a powerful collaboration and communication tool for your organization's experts to provide real-time assistance to technicians facing complex or unfamiliar challenges.





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Collaborative AR enables limitless reach for expert guidance

Vuforia Chalk combines advanced augmented reality (AR) with real-time communications to connect a field technician with an expert so that the expert can see and discuss the situation in the field. Technicians and experts can draw digital annotations on a mobile screen or desktop that accurately stick to 3D physical objects, allowing the expert to guide the technician through a process, step-by-step. With more accurate annotations, experts and technicians spend less time resolving issues, increasing operational productivity and efficiency.

Vuforia Chalk delivers faster resolution without the time and expense of expert travel or repeat technician visits.



Chalk will remain an important tool that simplifies communication, saves costs, increases workforce productivity and efficiency, and improves safety and compliance."

— Stefan Goeris, Process Consultant in Manufacturing at Henkel

WHY VUFORIA CHALK?

Reduce Operational and Service Costs:

Reduce the overall time it takes for frontline workers to make repairs and resolve issues, while also minimizing technician travel costs.

Drive Workforce Productivity:

Accelerate troubleshooting and problem solving by fostering real-time collaboration between on-site technicians and offsite remote experts.

Increase Customer Satisfaction:

Minimize downtime by ensuring that technicians fix things correctly on the first try, while providing customers the opportunity to perform their own repairs or maintenance via guided self-service.

Improve Employee Experiences:

Boost employee confidence and collaboration by providing real-time support and guidance that accelerates decision-making and problem solving.

Improve Safety and Compliance:

Providing novice employees with live expert guidance and mentoring improves safety and compliance when working in dangerous environments.

HOW IT WORKS



Remote Expert

Connect with your workforce to provide live guidance from desktop or mobile



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Frontline Worker

Connect with a remote subject matter expert when real-time support is needed

Increase workforce effectiveness & efficiency – anytime, anywhere.

Vuforia Chalk enables industrial enterprises to rapidly and cost-effectively get augmented reality in the hands of service technicians, factory operators, and subject matter experts using the mobile devices they have today.

- **Manufacturing and Service** – empower technicians and operators to perform more accurate service, installation, assembly, inspection, maintenance, repairs, troubleshooting, or issue identification
- **Workforce Collaboration** – drive real-time collaboration between frontline workers and subject matter experts for more effective problem solving and more on-the-job learning and mentoring opportunities

Technical Requirements

Supported Devices	iOS 13 or later devices Android 8.0 or later devices RealWear HMT-1 and RealWear HMT-1Z1 headset
Browser Capabilities	Chalk Admin Center: Google Chrome, Mozilla Firefox, Microsoft Edge/Internet Explorer, Apple Safari Chalk for Desktop: Google Chrome, Microsoft Edge
App Store Markets	All app store countries except for China.
Network Connectivity	2.0 Mbps recommended for best video quality on local capture device. 500 Kbps minimum.

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Vuforia Chalk's advanced features and functionality can help your organization quickly scale problem-solving guidance, support and expertise to your factory operations & service teams using augmented reality.



ADVANCED COMPUTER VISION

Vuforia Chalk packages Vuforia's powerful computer vision and real-time audio/video into a single application. Its 3D environment mapping allows annotations to "stick" to objects in the physical world. Chalk's anchored digital annotations increase accuracy and precision, enabling improved communication between users.

CONNECT CODES

Connect Codes allow a user to "host" a Chalk session, which means the other participant does not need to have a license or user account. Users can generate a 9-digit code that they send to the session "guest" to join a session. The guest does not have to register with Chalk or use one of the company's user licenses, but they must have the app downloaded. This feature is great for use-cases where the "guest" may not be a company employee that needs a permanent account. They could be a 3rd party contractor or your end customer in a service model.

CHALK FOR DESKTOP

Chalk offers a web-based version of the application for remote experts or call center representatives who may work from a desktop computer or laptop. The Chalk for Desktop application is only available to the remote expert in a Chalk session. The local worker who that shares their view must be on a mobile device that supports the underlying AR technology that Chalk uses for the annotations.

CHALK FOR HANDS-FREE DEVICES

Vuforia Chalk for Hands Free Devices gives technicians access to remote expertise using a RealWear HMT-1 and HMT-1Z1 headsets, all while keeping their hands free to complete a task safely and efficiently.

MULTI-EXPERT SESSIONS

Through the Multi-Expert Sessions feature, Chalk supports up to 5 participants in one session, allowing frontline workers to connect to multiple remote experts for better troubleshooting support in unexpected situations. Multi-Expert Sessions enables improved communication across regionally distributed teams by facilitating collaboration and knowledge sharing with the front-line.

LOW BANDWIDTH MODE

Chalk relies on a strong mobile connection either through a cellular network or Wi-Fi. If the location or environment in which you use Chalk does not have a good network connection, users can activate the "low bandwidth mode." Low bandwidth mode allows video to be streamed at a high resolution/low frame rate so calls can still be effective in poorly connected areas.

SESSION SUMMARY

Using the Session Summary feature, Chalk automatically stores and displays the "points of interest" at the end of a session as screen shots from the call. "Points of interest" are auto-captured based on annotations made by the session participants. These attachments can be exported and saved for future use to document work orders and evidence of service work, improve QC processes by verifying thoroughness and issue resolution, share knowledge of known issues and steps to remediation, and much more.

ENTERPRISE MANAGEMENT

Chalk Admin Center enables the account management of enterprise Chalk Users. Super admins and business admins of a company account can manage user permissions and view data/analytics of the enterprise use. Additionally, the Chalk Admin Center offers enterprise-grade security and single-sign on capabilities for organizations.