



Augmented Reality applications accelerate motor-vehicle repairs and support technical trainings

Survey proves the benefits of Augmented Reality applications in automotive workshops

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- ▶ Significant time savings thanks to the use of Augmented Reality in workshops
- ▶ Updated development platform allows device-independent AR applications
- ▶ Innovative training possibilities thanks to multiple-user application

Augmented Reality (AR) complements reality overlaying additional information. In case the user points his smartphone or tablet camera – or even his smart glasses – onto an area with available AR information, explanations, 3D objects or videos are added to the real image.

Use of Augmented Reality in workshops pays off

By means of a field study at Bosch Car Service workshops, Bosch now analyzed the benefits of using Augmented Reality applications in everyday workshop life. The result: Using Augmented Reality applications, time savings of 15 percent in average per step taken are possible even on common vehicles and less sophisticated repair tasks such as e.g. removing specific components. Thanks to AR applications, mechatronics see the location of hidden components, instructions or required special tools integrated into the real image. This clarifies the next steps to be taken thus avoiding unnecessary disassembly and assembly work. In case of rather sophisticated repairs or if dealing with latest vehicle technology, the time – and thus money – savings might even be much higher.

Innovative training possibilities thanks to latest improvements of CAP functionalities

In addition, Bosch works on applying AR technology for technical trainings of workshop employees. The reworked Augmented Reality platform (CAP) now allows new and efficient applications, in particular for anything related to trainings. Contents and applications are now published in a device-independent manner because CAP is fed by locally and centrally stored contents providing the data required for the respective AR application requested. In practice that is, users can use any AR application on smartphones, tablet or even Augmented Reality

glasses – and they can easily switch between these devices. This multiple-user solution opens new, exciting and efficient methods for technical trainings combining random devices with one another.

The improvements made to CAP allow the development of Augmented Reality applications with innovative training scenarios: In “Trainer Mode”, the trainer controls the devices of the training participants and decides which case shall be displayed on their devices. In this case, any actions taken by the trainer are also shown on the participant devices. And yet each participant keeps an individual point of view – for instance onto the engine compartment. The whole group of participants and each and every one of them can actively follow and experience the explanations the trainer provides for each training situation. In “Trainee Mode”, the trainer accesses any participant’s device. In this manner, he can provide useful hints and tips and explain the next steps lucidly.

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Additional information can be accessed at www.bosch-automotive-aftermarket.com

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