



Augmented Reality | FLUX REMOTE for machine maintenance

FLUX REMOTE

Direct Service Without On-Site Visits

TASK

Provide the Venjakob service experts with a software enabling optimal remote assistance.

Service is an important topic relevant for every company in the area of mechanical engineering. Venjakob Maschinenbau from Rheda-Wiedenbrück, Germany, strives to tap the full potential of their employees. Long travel times to customers for solving service-cases conflict with this goal. To this end, the task was to find a solution for estimating the urgency of service trips or ideally completely supersede them.

SOLUTION

FLUX REMOTE for service cases – live remote support directly at the machine

The main problem of remote communication is the absence of physical references which has to be compensated via verbal communication. Sharing pictures and videos can provide additional support for these explanations. However, transferring information from 2D to the three-dimensional real world is a cognitively demanding task. This is a source of error and uncertainty, as it is not clear whether both parties have a correct mutual understanding of the same thing. To overcome this issue, an app was created for iOS and Android devices. Registered users can start video calls to either request or actively offer support. The service technician on the spot and the expert have now the same view on the machine via the technician's camera. At the same time, the expert's face is visible via his front camera.

After the technician has recorded the current situation using the app, he and the connected expert can place digital elements in real space. These can be used to support what is being said, to clarify and name components, or to visualize sequences. Standard elements such as 3D arrows, animated highlights or drawings are available for this purpose. Especially when it comes to bridging language barriers, such additions can make the difference. The placed elements are robustly anchored on the recognized surfaces of the environment, such that the employee on site can move freely around the machine with the smartphone - the virtual elements will stay in position. In complex scenarios, the expert has the option of temporarily "freezing" the scene. He can take his time to place his assistance and then release it for the technician on site. This way, the technician does not have to remain still until the virtual elements have been set. In addition to voice and video, a text chat is integrated, which can also be used to exchange files such as drawings or explanatory videos. A screenshot function facilitates documenting the service case.



A Look into the Future

FLUX REMOTE as part of the service process

A promising approach is to integrate FLUX REMOTE as part of a company's overall service process. The goal is to link the app with the existing system for recording and billing service cases and to automatically incorporate the services performed using FLUX REMOTE. This way, a completely new business field could be established in the area of service without creating administration overhead.

ADVANTAGES

FLUX REMOTE for service and maintenance...

- ... enables experts to use their potential without wasting time and energy
- ... bridges distances and saves travel cost
- ... can be used to bridge language barriers
- ... reduces loss of information in remote communication
- ... can be documented by screenshots
- ... can be extended to be part of a companies service process



See the video

For more information, do not hesitate to contact us. Visit our demo room in Rheda-Wiedenbrück or leave us a message.

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