

Press Information

Development Contract: "Fire Service Digitalisation – Virtual Fire Extinguishing Trainer" for EDAG

Contract signed by District President Hermann-Josef Klüber and Dirk Keller (CEO of EDAG Productions Solutions GmbH & Co. KG)

14 October, 2021 *Safe and rapid action on the part of firefighters when fighting a fire or rescuing the injured from vehicles that have been in accidents is essential, and calls for regular training. In order to be able to provide effective assistance in these emergency situations, firefighters must have perfect command of their equipment, and know the correct tactical procedures and how to apply them. The digitalisation of the fire brigade by means of innovative virtual reality applications can help to provide regular and practical training for firefighters everywhere - regardless of the actual physical training objects that are available. One example of such applications is the "virtual fire extinguishing trainer".*

On 4 October, 2021, District President Hermann-Josef Klüber (Regional Commission in Kassel) awarded EDAG Productions Solutions GmbH & Co. KG (EDAG PS) with an order for the development of a virtual reality application which could be used as a realistic means of training staff to extinguish a fire inside a building. The contract was officially signed by District President Klüber and Dirk Keller (CEO of EDAG PS) at the head office of EDAG PS in Fulda, marking the kick-off of the development project. EDAG PS, one of the world's leading production engineering suppliers, has for years been focussing on the development of VR applications, for instance for manual painting training, or virtual robot programming.

District President Klüber expressed the hope that the VR firefighting simulation might open up completely new potential when it comes to training firefighters: "Demographic change is already having an impact on many fire brigades in North-East Hesse. This is making it more and more difficult to ensure that regular training is offered in the area. VR firefighting simulation is a promising concept showing how digital learning can be implemented in the fire service. It will enable training to become more flexible, and not tied to a specific location. I am pleased that, with EDAG PS, we have acquired proven specialists in the field of virtual learning environments for this project."

Project contents:

In order to practise not only the best way of operating and handling the hose jets, but also the tactical approach, the idea is to simulate an inside fire using the virtual fire extinguishing trainer with VR glasses. This fire is to be extinguished using a genuine firefighting hose jet, which serves as a controller and is

adapted to VR. The hose jet is converted in such a way that the water jet settings (flow rate and spray pattern) and movements (direction and angle) can be transferred to the virtual environment.

The realistic simulation of water, fire and smoke development is also an important component of the virtual fire extinguishing trainer, to make the immersion (immersion in the virtual world) as realistic as possible. To this end, an individual algorithm that follows a phenomenological approach will be developed, to give the firefighter a realistic feeling of the elements.



From left to right: Hermann-Josef Klüber (District President of Kassel) and Dirk Keller (CEO of EDAG Productions Solutions GmbH & Co. KG)

About EDAG

EDAG is an independent engineering service provider working for the global automotive industry. The company has a global network of some 60 branches at the world's major automobile centres to serve leading national and international vehicle manufacturers and technologically discerning automotive suppliers. In addition, EDAG also offers engineering services in the vehicle engineering, electrics/electronics and production solutions segments. This extensive competence enables EDAG to provide its customers with all-round support, from the original idea to design, through to product development, prototype construction and even turn-key production systems. As an innovative technological leader, the company also has competence centres for ground-breaking future technologies for the automotive industry: sustainable vehicle development, safe mobility, digitalisation and drive and storage technologies. In 2020, the company generated sales of 650 million euros in the core business. On 31 December, 2020, EDAG employed a global workforce of 7,984 (including apprentices).

**Do you have any questions, or need further information?
I look forward to hearing from you:**

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