

KLM Royal Dutch Airlines announced the launch of the new **VR Training Application**

KLM's regional airline subsidiary KLM Cityhopper is the first airline to integrate VR into its training program for pilots flying the Embraer 175 and 190 aircraft. Thanks to the in-house, and supported by Capgemini, developed application on the new Oculus Quest 2 VR-headset, pilots can become familiar with the virtual cockpit in the comfort of their own homes.

VR training from home

Standard Operating Procedures are currently being trained in an expensive flight simulator at Schiphol-East. Travelling to KLM locations and making use of the simulator at scheduled times are time consuming and costly manners. By adding the virtual reality solution, KLM provides their pilots the possibility to train virtually from their own homes as well. With introducing VR, KLM expects to save time and costs, especially in times of COVID-19 a very beneficial side effect.

Virtual Reality Training allows pilots to familiarize themselves with the training material. Unlimited, side-independent training can be performed, making it more accessible and flexible and therefore enables the pilots to become well prepared and make more effective use of their simulator time.

Up until now, pilots could also practice the SOP's at home with posters with an overview of the different control panels. With virtual reality, pilots can now experience even better how the procedures work and how the cockpit feels spatially. This solution enables the crew to spend their time more efficient and effectively.

The KLM Cityhopper with a fleet fleet of nearly 50 aircrafts of which 30+ are Embraer, the VR training courses for the Embraer 175 and 190 opens a new possibility to train the pilots involved.

Successful co-development

The training courses are developed by KLM's own VR experts in cooperation with KLM Cityhopper and technical expertise of Capgemini. This is performed in the Unity game engine (language: C #). The "Virtual Cockpit Training" consists of an application which is part of the Type Rating Course in which pilots learn the specific characteristics of the aircraft type they are going to fly. Pilots can enter inside a virtual cockpit, offering them an interactive, computer-generated image of the control panels.

“*The interactive virtual cockpit was created on computers entirely by our team of VR developers and 3D designers. Our developers haven't the faintest idea how an Embraer works, although they've certainly learned a lot.***”**

~ Werner Soeteman
Manager of the VR Centre
Of Excellence at KLM IT



“In these turbulent times, the dynamics of many organizations’ Agile development teams have been disrupted thanks to work-from-home-mandates. Despite all this, the multi company team (KLM, KLC, Capgemini) has proven to deliver on time, on budget and on value”

~ **Werner Soeteman**
 Manager of the VR Centre
 Of Excellence at KLM IT

KLM initiated different tracks using VR for the training of its personnel in multiple business entities. Within Engineering and Maintenance domain, the company already has VR training courses for engineers. Early 2019, Capgemini was involved in the creation of multiple VR applications for KLM like the Fire Safety, Bridge and Pushback training. In addition to the existing Fire Safety training, the VR application lets the cabin crew practice in a “lifelike” environment with passengers, smoke alarms, etc. The Bridge training is developed for practice driving the passenger bridge and with the help of the Pushback training, a part of Schiphol has been reconstructed with a simulated process of aircraft arriving, taxiing, unloading, and being pushed away again. New operators can practice in a busy environment independent of the operation.

The training courses for the pilots are an addition to the existing training program. KLM is exploring if certification of the solution can be achieved. Meanwhile, a diversity of new ideas is popping up for the application of VR.

About KLM Cityhopper

KLM Cityhopper is the regional airline subsidiary of KLM, headquartered in Haarlemmermeer, North Holland, Netherlands. It is based at nearby Amsterdam Airport Schiphol. As a subsidiary of Air France–KLM and an affiliate of SkyTeam. The airline operates scheduled European feeder services on behalf of KLM. With a fleet of nearly 50 aircrafts of which 30+ are Embraer.

Overview:

<p>Customer: KLM Royal Dutch Airlines</p>	<p>Location: Netherlands</p> 	<p>Client Challenges: Standard Operating Procedures are currently being trained in an expensive flight simulator at Schiphol-East. Travelling to KLM locations and making use of the simulator at scheduled times are time consuming and costly manners.</p>	 <p>Solution at a glance: Developing the virtual reality solution, KLM provides their pilots the possibility to train virtually from their own homes.</p>
<p>Industry: Aviation</p> 			

About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology, and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients’ opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. A responsible and multicultural company of 265,000 people in nearly 50 countries, Capgemini’s purpose is to unleash human energy through technology for an inclusive and sustainable future. With Altran, the Group reported 2019 combined global revenues of €17 billion.

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