Vantage Airport Group is Designing

VR Safety Training

Vantage Airport Group implemented interactive virtual reality training that reduces training time, upgrades safety standards, and increases knowledge retention to mitigate millions of dollars of risk.

1000+
Airside Employees Trained

$200K
in Reduced Annual Training Costs

$10M+
of Risk Mitigated

In today's competitive air transportation market, safety remains a priority for international companies like Vantage Airport Group. Circuit Stream worked with Vantage to understand their business, and design a virtual reality (VR) training application to improve safety while being practical and cost effective.

Traditional methods of training cost Vantage over $200,000 with upwards of 10,000 man hours to transport instructors across the Vantage network and dedicate time to employees. Through VR training, employees are more effectively trained for a variety of scenarios in the safety of a virtual environment. Retention is increased, skills are ingrained, and millions of dollars of potential risk in accidents and lost revenue are saved.

Challenge

With 57 million passengers passing through their 10 airports located around the world, safety is a priority for Vantage. They continuously improve operations and maintenance, and develop the best safety and training practices for their 1000+ airport employees to ensure increased passenger traffic and commercial revenues.

Employees in airside operations — those working in close proximity to aircraft — work in the most hazardous area of an airport where traditional methods of training can be expensive and time-consuming.

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"To build a VR app takes time and effort, 3D models, functionality, and development.
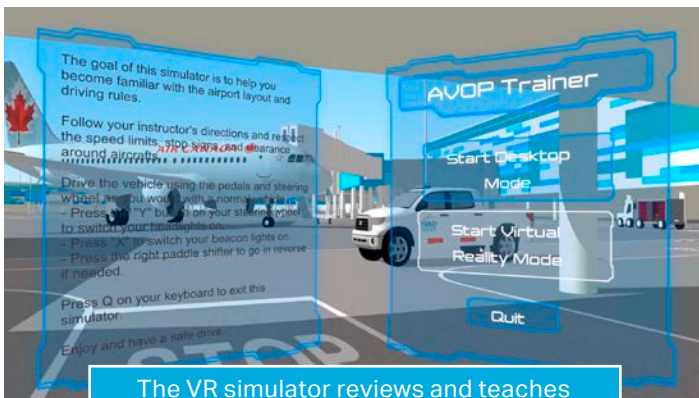
VR's value is its ability to recreate experiences difficult to encounter otherwise."

PASCAL POUDENX
MANAGER OF PROCESS DESIGN
AND SUSTAINABILITY
VANTAGE AIRPORT GROUP

Solution

Circuit Stream and Vantage came up with a solution: an interactive and immersive airside driving simulator using the Oculus Rift designed to reduce risk to employees and allow training in scenarios difficult to recreate in reality. This simulation would increase knowledge retention, decrease potential accidents, and lower the risk of repairs and lost revenue. Circuit Stream was introduced to Pascal Poudenx, the manager of process design and sustainability, who tests solutions to operational problems through computer simulation. Pascal uses 3D models of real airports to improve the operations and flow of passengers in existing terminals.
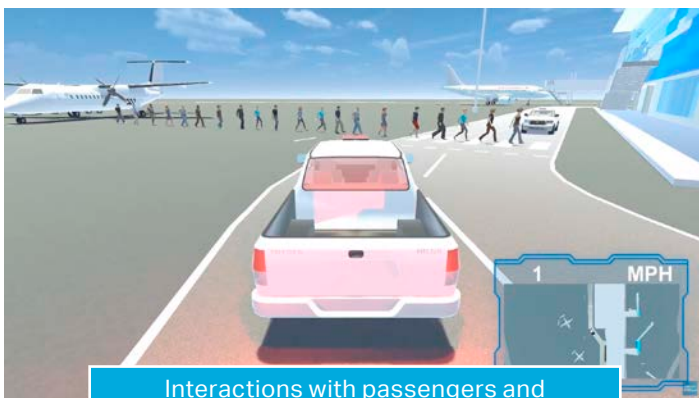
Pascal had no experience in Unity or an immersive medium like VR before. Circuit Stream developed the VR application and offered integrated and applied training for Pascal to become well-versed in maintaining the application after launch. Collaborating together, Circuit Stream and Pascal completed the airside driving simulator in under four months.

The VR simulator reviews and teaches the user strict airside driving rules

VR training improves retention and streamlines learning

Interactions with passengers and airside traffic are realistic

Rules are strictly enforced to ingrain the user's driving habits

CIRCUIT STREAM

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Through their partnership with Circuit Stream, Vantage's VR training reduces training time to save on overall costs, betters knowledge retention, and mitigates over 10 million dollars of risk in avoidable accidents.

"Firstly, we're able to **save on training time and costs**, *and find ways for employees to safely practice what they learn.*

Secondly, we **reduce risk** *when we're able to experience things in training difficult to recreate in reality, like being exposed to the jet blast of an aircraft engine."*

PASCAL POUDENX
MANAGER OF PROCESS DESIGN
AND SUSTAINABILITY
VANTAGE AIRPORT GROUP

Results

Circuit Stream and Vantage designed a driving simulator that not only trains employees in the specific rules of driving airside, but also allows them to safely experience hazards inerrant to their workplace. For example, users in this immersive VR simulation can experience what happens when driving too close to an aircraft's jet blast, without any risk of actual injury or property damage. This discourages potential risky behaviour that is life-threatening to both employees and passengers, and results in millions of dollars in repairs and lost revenue.

Vantage implemented the application to train the airside operational employees at Vantage's Nassau, Bahamas airport. The application has been well received and is set to be rolled out across Vantage's global network. Vantage is now exploring with Circuit Stream how to add further features to the simulation focused on other areas of air safety and ground crew training.

Vantage Airport Group prides itself on developing and adapting best practices in airport operations and management for the past 20 years, and they've accomplished this by being early adopters of technology that complements their goals of efficient and safe operations.

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