PORT M MONTRĒAL

The Future of Fire Safety Training

The Problem

The Port of Montreal is one of the biggest ports in Canada. With its 26-kilometer-long stretch along the south shore of Montreal, the Port of Montreal is a hub for world trade and international shipments of goods. They strive to be innovators in their industry and to create an environment that promotes teamwork and collaboration.

Initially, the Port of Montreal's innovation team wanted to scan a scale model of the port in order to digitize it for use in planning an upcoming exposition. Nicolas Morency, CEO of Prevu3D, spoke with Daniel Olivier, Chief of Innovation at the Port of Montreal, about how scanning the actual port, rather than a scale model of it, would provide a greater degree of accuracy and realism. Both parties were excited by this challenge – the Port of Montreal would get a superior product than they had originally anticipated, while Prevu3D got the chance to tackle a challenging project larger than any they had done to date.

But the project got even more exciting: Dany Rochond, Deputy Harbour Master, Fire and Hazardous Materials at Port of Montreal, had an idea when speaking with Mr. Olivier about the digital twin of their facilities. What if it could be used as a setting for digital fire and safety training? This simple idea made radical sense, as Prevu3D's expertise in interactive 3D solutions could now be put to use in a new setting with significant benefits for the Port of Montreal.

The Project

After lots of planning and the help of ARA Robotics, the project got underway. Over the next few months, the team from ARA Robotics captured hundreds of thousands of images of the port that would later be processed into high-quality 3D models. Leveraging the Prevu3D platform, new functionalities based on the request of the fire safety department were designed and added. Working closely with the Port's team, Prevu3D developed a tailored solution that became the Fire & Safety department's innovative new training tool.

The Benefits

The Port of Montreal prides itself on how secure and efficient they are at preventing and managing crises. Because of this success, there hasn't been a lot of real life-threatening or dangerous events in the past few years. Without actual emergencies to build their experience fire and safety officers had to rely on a standard lecture-style training through Power-Point presentations in order to practice and review emergency response scenarios.

With the help of their new simulator, trainers can now create various scenarios, anywhere within the 26-kilometre area of the port, to rehearse potential emergencies and to review the trainees' responses to them. Variables controllable within the simulator, such as meteorological factors, affect the participant's choices within the simulator and thus their evaluation. Plus, participants in fire and safety training can now continue to improve their readiness from home, which they could never do before.

Most emergency responses rely on effective communication between multiple participants, and their new simulator allows the Port of Montreal fire and safety workers to train under a more realistic representation of the risk factors involved in a given scenario.

> **I can't help but want to share this with other fire and safety teams around the globe. This tool can really benefit anyone with their own emergency response team. It's gamifying our training efforts, and as result, we will be able to train and continuously keep our reflexes at their prime. We will keep using Prevu3D for a long time!**

Dany Rochond,
Deputy Harbour Master, Fire and Hazardous Materials at the Port of Montreal

Results, ROI, and Plans for the Future

To put it simply, trainees can learn about and experience emergency scenarios faster than ever before. With the help of this new simulator, they can launch a scenario in minutes and make their response time and efficiency better. The more often fire and safety workers train, the more efficient they will be when a real emergency arises. Using a digital replica of the Port of Montreal also allows them to learn the Port's territory faster, ensuring they provide the best response possible in the event of a real incident. None of this would be possible without the solution provided by Prevu3D.