VCTO Labs Customer Story

Digitizing Alcatraz: Creating a 3D map to monitor climate change with Lenovo

VCTO Labs provides innovative technical solutions for storytellers, filmmakers, and creatives that bring stories to life. VCTO Labs can create a digital twin of anything—a building, a battleship, a national park, a country… anything.

> **"What's the secret to my success? The right gear, always."**

Peter Kelsey,
Founder, *VCTO Labs*

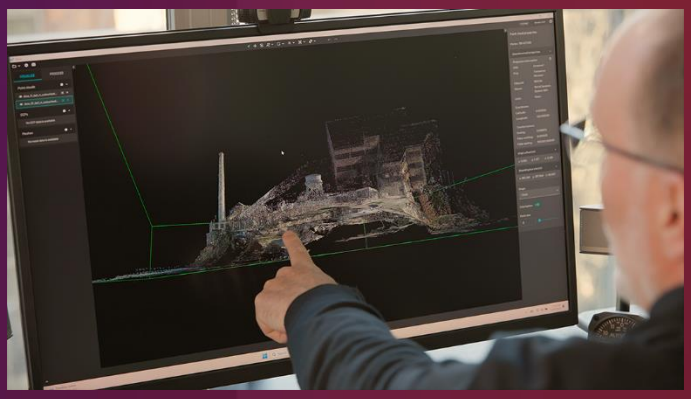
For Peter, being stuck on Alcatraz Island for three weeks was a dream come true. He and his team were there to survey and map the island, using cutting-edge terrestrial laser scanning (TLS), drone-based LiDAR, and photogrammetry technologies—as well as a powerful Lenovo ThinkStation P8 workstation to process the vast amounts of data generated and build a detailed 3D map of the infamous island.

The Challenge

Unable to leave Alcatraz Island until they had scanned every nook and cranny, the VCTO Labs team needed to be able to post-process the huge amounts of data captured by laser scanners and drones on site.

The Solution

VCTO Labs used a 96-core Lenovo ThinkStation P8 workstation, equipped with NVIDIA RTX™ graphics cards and powerful AMD™ Ryzen™ Threadripper PRO processors, to process huge photogrammetry data sets at speed. The single-socket Lenovo ThinkStation P8 workstation punches above its weight in performance for heavy-duty graphics, 3D rendering, game development, and more.



The Results

After scanning every space they could get into—including a 150-year-old sewer—VCTO Labs was able to build a highly detailed 3D map that the U.S. National Parks Service can use to track the impact of climate change. Peter states: "The ThinkStation P8 gave use the horsepower we needed to process huge data sets right there on Alcatraz Island."

> **"This project wouldn't have worked without Lenovo, it's that simple."**

Peter Kelsey,
Founder, *VCTO Labs*

How Lenovo Workstations Transformed Their Process

The Lenovo ThinkStation P8 with AMD Ryzen Threadripper PRO and NVIDIA RTX professional GPUs offers stunning performance with up to 96 cores and clock speed up to 5.3GHz. The P8 combines Lenovo's legendary reliability and customer-driven innovation with professional manageability and enterprise-class support.

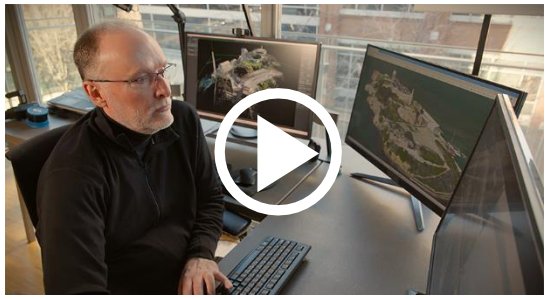
Purpose built with the speed and configurability the professional AI workflows require, this powerhouse offers PCIe Gen4, unmatched professional GPU support, as well as increased storage speed and fast onboard 10GB ethernet. The ThinkStation P8 paired with the ThinkPad P1 provide the tools you need to fully realize your creative vision.

> **"As soon as I saw the specs of the Lenovo ThinkStation P8, I knew that the project was going to work."**

Peter Kelsey,
Founder, *VCTO Labs*

Watch Video

See how the ThinkStation P8 powers VCTO Labs' efforts to digitally 3D capture Alcatraz Island.



Workstation Specifications

ThinkPad P16s Gen 2

Processor:
Up to 5.1GHz
AMD Ryzen™ PRO processor

Graphics:
Integrated AMD graphics with supporting drivers
High-performance graphics

Memory:
Up to 64GB LPDDR5X
6400MT/s LPDDR5X

Storage:
512 GB SSD M.2 PCIe® Gen4
NVMe Performance SSD

ThinkStation P8

Processor:
Up to 96 Cores 5.3GHz
AMD Ryzen Threadripper PRO 7000 WX-Series Processor

Graphics:
Up to 3 NVIDIA RTX™ 6000 Ada Generation GPU
Or up to 4 NVIDIA RTX™ A4000 GPU

Memory:
Up to 1TB DDR5
8 DIMM Slots

Storage:
Up to 52TB
Up to 9 Drives Total

Why Lenovo

Focused on a bold vision to deliver smarter technology for all, Lenovo is developing world-changing technologies that create a more inclusive, trustworthy, and sustainable digital society. By designing, engineering, and building the world's most complete portfolio of smart devices and infrastructure, we are also leading an Intelligent Transformation—to create better experiences and opportunities for millions of customers around the world.

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