

CASE STUDY

Clark County School District Unlocks the Potential of zSpace

The Challenge

Implementing a modern and cost-effective Career and Technical Education (CTE) program in one of the largest school districts in the country.



The Solution

Leveraging zSpace technology to grow the CTE program across the district and curriculum, from health sciences to automotive education.

“Virtual reality has so much potential for CTE,” said Jeanne Donadio, former director of Career and Technical Education, or CTE, for Clark County School District (CCSD). “It’s the way to make our programs current and relevant, increase our graduation rate, and in the long run it’s extremely cost effective.”

Donadio was with CCSD for more than 25 years. Located in the Las Vegas area, CCSD is the fifth largest school district in the country, educates more than 320,000 students, and includes 44 high schools. Knowing the advantages of a powerful CTE program, Donadio and her team were looking for a solution to expand and modernize the district’s offerings.

CTE programs are a key factor in improving the district’s high school graduation rates. According to a Nevada Department of Education study, the graduation rate for CTE students in 2015 was 13 percentage points higher than the overall graduation for all Nevada students. “And I think virtual reality can make the graduation rate even higher,” said Donadio.

Donadio and her team first experienced zSpace during a stop of the zSpace Mobile Classroom Tour bus, which travels the country demonstrating the potential of mixed reality technology for learning to students and teachers. They immediately knew that the technology supported their vision of expanding and modernizing the district’s CTE program.

Tapping into both Carl Perkins federal funding as well as significant state funds, Donadio and her team began to match zSpace technology with existing CTE classes like health sciences, automotive education and manufacturing technology.

“This has totally reenergized the staff,” said Snehal Bhakta, CTE project facilitator for business and marketing and information and media technologies career clusters at CCSD. “It’s brought in a new level of excitement as teachers discover a whole new way to educate students that’s more enriching and engaging.”

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SNEHAL BHAKTA
CTE Project Facilitator
Clark County SD

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zSpace is also helping CCSD offer more CTE classes without major spending. For example, building automotive bays and buying equipment, like used cars and engines, costs much more than zSpace units, and with zSpace, skills can be practiced again and again in a safe environment without damaging equipment. The same cost savings apply to other classes, such as engineering and future planned classes like cybersecurity and automated manufacturing.

The potential is exciting for business in the area as well.

“Manufacturing firms and many industries see amazing possibilities with zSpace and virtual reality,” said Bhakta. “For example, companies don’t necessarily want someone straight out of high school working on a multi-million dollar piece of equipment. But someone’s who’s practiced those operations and safety techniques virtually will be that much more prepared and likely need less real-world training. Companies could see zSpace as a valuable return on investment.”

As CCSD’s CTE department, local industries and zSpace work together to create future workforce applications, the district continues to add zSpace technology not only in high school, but also middle and elementary schools. Donadio sees zSpace as a complementary solution to teacher shortages and making Career & Technical Education available to all students in the district.

“Technology and manufacturing experts are hard to recruit because they can make more money elsewhere,” said Donadio. “But with a zSpace lab we can fill in some of those holes. With much of the software, students can pursue knowledge on their own. And it’s even more important for the smaller rural schools in our district. Now they can get the same quality CTE programs as the metropolitan schools.”

“The possibilities are truly endless, and, for once, I feel like education can be ahead of the game or at least in line with industry,” Bhakta said. “With zSpace, we can build applications that stay current with workforce demands and needs, plus students develop critical thinking and problem-solving skills. That’s what employers want. It shrinks the learning curve, and encourages us to push the envelope.”

