

MOTION CAPTURE'S NEWEST FRONTIER

Flinders University is using its capture stage to help TV and games makers adapt to the pandemic



In early 2020 Flinders University finished installing a brand-new entertainment-focused motion capture stage. The university was ready to begin teaching with the stage, but when coronavirus stopped campus-based learning dead in its tracks it pivoted, showing local studios that there's more to virtual production than elaborate VFX.

Dan Thorsland, Business Development Manager for Flinders' College of Humanities, Arts and Social Sciences, was already familiar with using cutting-edge technology to tell stories when he joined the school. After a decade editing comics in the USA he moved to Australia to make videogames, working with brands including Disney, Lucasfilm and LEGO.

Professor Vanessa Lemm, Dean of the college, approached Thorsland after hearing him talk about the technologies students need to master if they want to become digital storytellers. He joined the department in 2019 to better orient the course towards industry, bringing together the drama and screen schools and focusing, in particular, on the department's motion capture volume.

Occupying a space that was originally set up to mimic a TV studio, the volume is named 'the VOID' ('Virtual and Optical Image Dimensions') and has 20 Vantage cameras running on Shogun.

Vicon was an obvious choice for the department. Thorsland was already familiar with the company's systems from his time in industry, while the university already had cameras in use to study biomechanics. "We knew it was an artist-friendly, content-friendly, content-enabling product for capturing great clean performances," says Thorsland.

ADAPTING TO THE PANDEMIC

"It's meant to be a place where local screen practitioners as well as students can come in and do research and development experiments with state-of-the-art hardware," Thorsland says.

The plan was to have students working in the VOID by April, but Covid-19 struck.

Unwilling to let the pandemic entirely derail his plans, Thorsland began making calls. "People started getting over the shell shock of the pandemic," he says. They were seeking to "find ways of doing virtual production and ways of putting actors on location when you can't drive them anywhere."

These studios didn't necessarily need to produce fantastical VFX - they just needed an alternative to a busy set, where coronavirus might easily be spread.



Photography courtesy of: Flinders University

The help of a local events company helped Flinders round out its offering. "We're very lucky that we got together with a company called Novatech, which had 3.9 pitch LED walls, two big ones," says Thorsland. The two organizations came up with a plan to sync these large LED walls with the Flinders Vicon system and, with the help of Unreal Engine developer Epic, run it all through the engine.

"So fast-forward into August and we have an operating virtual production stage that integrates some real LED walls and the Vicon camera system," Thorsland says. "And, I have to say the Vicon system has been such a pleasure to work with. We had our first non-digital client come in who was shooting a television show. They had never worked with motion capture, never worked with virtual production. We planned on a two-day shoot and they knocked it all over in a day."

The stage has been used in a variety of ways. "I've had a local producer who has relatively modest budget projects in the two to five million dollar US range," Thorsland says. "We're booking in for weeks at a time. They're doing simple things like day for night

shoots, so they don't have to drive out to location and worry about getting stuck there with a sick person, all the way up to very complex video game pieces with four actors at a time on the stage doing running and sword fighting.

"I've had about 10 people from industry through the doors now. All the way from very small scale production people who do web series, up to high-end visual effects houses like Mr. X."

THE FINAL FRONTIER

Even for professional production teams, however, Thorsland sees an educational aspect to what Flinders offers with its stage.

"So what we're trying to do with our virtual production stage is get directors to feel very comfortable coming in and setting up a lighting environment that really surrounds the actors, even if they are in a motion capture suit, so that they're in that environment, and they're not acting to cardboard sticks in green screen," he says. "They can really be immersed in the experience of what

PEOPLE STARTED GETTING OVER THE SHELL SHOCK OF THE PANDEMIC," THEY WERE SEEKING TO "FIND WAYS OF DOING VIRTUAL PRODUCTION AND WAYS OF PUTTING ACTORS ON LOCATION WHEN YOU CAN'T DRIVE THEM ANYWHERE."



DAN THORSLAND
Business Development Manager
Flinders' College of Humanities,
Arts and Social Sciences

they're doing and experiment with their performances and become very comfortable with it.

"I refer to motion capture as the last frontier of disassembling and reassembling the screen experience. We've chopped up sound, we've chopped up sequence, we've learned how to work in visual effects environments. But actually capturing human performance, breaking it down into a set of digitally transportable pieces, that's still a relatively new art, especially for directors and students."

While the coronavirus might be sharpening the learning curve, however, Flinders is showing that virtual production has a big future beyond the prescribed realms of videogames and blockbuster filmmaking.

VICON



VICON DENVER
7388 S. Revere Parkway
Suite 901
Centennial
CO 80112, USA
T:+1.303.799.8686
F:+1.303.799.8690

VICON LA
3750 S. Robertson Boulevard,
Suite 100
Culver City
CA 90232, USA
T:+1.310.437.4499
F:+1.310.388.3200

VICON OXFORD
6, Oxford Industrial Park
Yarnton
Oxford
OX5 1QU
T:+44.1865.261800