



SHERIDAN COLLEGE SEAMLESSLY TRANSITIONS POWER USERS TO REMOTE ACCESS

Against the backdrop of a pandemic and in partnership with HP, the educational institution successfully enabled students and instructors in gaming, animation and design programs to remotely conduct business as usual.



**SHERIDAN COLLEGE TRAINS FUTURE
AWARD-WINNING FILMMAKERS,
ARTISTS, PHOTOGRAPHERS,
DESIGNERS AND ANIMATORS
WITHIN ITS FACULTY OF
ANIMATION, ARTS AND DESIGN**

More than 5,700 students within the Faculty's programs work with instructors to learn their crafts. Once the pandemic lockdown was initiated in March 2020, the campus was forced to move most learning into an online format. The Faculty of Animation, Arts and Design (FAAD) turned to HP to empower its students with remote access to high-performing machines on campus. Through a collaborative partnership, Sheridan deployed a complete

HP ZCentral solution—using ZCentral Connect,¹ ZCentral Remote Boost,² and soon, the Red Dot award-winning ZCentral 4R. The solution has offered equitable access to students and instructors and reduced administrative tasks, resulting in a seamless remote campus experience. Sheridan's relationship with HP continues to grow as it uses technology to provide an uninterrupted and fulfilling educational experience.



Sheridan



INDUSTRY:
Education



OBJECTIVE:
Develop a solution for the FAAD to transition students and instructors to remote access, ensuring a complete educational experience.



APPROACH:
Deploy Z Central to enable the faculty to conduct classes, assignments and other instructional duties without interruption

An unexpected situation

Just when Oleg Kuznetsov was ready to collaborate on a 3D animation group project for his class, the coronavirus outbreak moved everyone off campus. At first, it was expected to last two weeks.

For Kuznetsov, a third-year student in the Honours Bachelor of Animation program at Sheridan, the timing of the pandemic was far from ideal. The group project required a level of collaboration that he thought wasn't possible off campus.

"We could not access good equipment," Kuznetsov says. "Yes, we had laptops, some of us had desktops, but they were not on par with what the school provides."

His situation was akin to many others within FAAD. Students in gaming—generally big users of the campus compute environment, roughly 900 workstations—were thrust into the unknown.

"When the pandemic hit, we needed to figure out a way to provide student access to our labs," says Martin de Bernardo, Technical Manager in Sheridan's FAAD. "We normally would give students 24/7 access to the labs. That's how they would be doing their assignments, work and class activity."

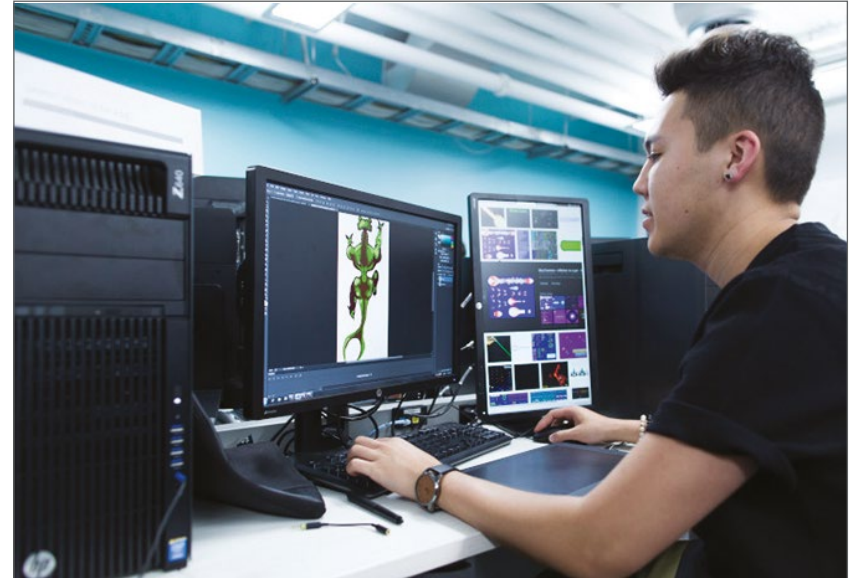
For FAAD's Macintosh Technologist Rob Roy and Technologist Mark Galaszkiwicz, the disruption was an opportunity to expand a pilot project to a larger scale. The technologists had built a rack in a server room with HP 620s. Roughly 60 students accessed these headless machines—computers that operate without peripheral devices like a monitor or keyboard—from inside a classroom, using HP ZCentral Remote Boost.

"Our use case hasn't changed a whole lot because we were already tampering with it and our students were light users. But the moment we went home, our animation users suddenly needed a workstation with high horsepower and they were stuck at home with a laptop," Roy says. "That's when it really ramped up."

Although the initial use case was limited to machines in a server room, the impact of COVID-19 meant hundreds of students were now at home leaving unused—and much needed—hardware on campus.

"HP GOT IT DONE BEFORE THE SCHOOL YEAR STARTED."

Rob Roy, Macintosh Technologist, Sheridan College



"IT ALLOWED US TO DO BUSINESS AS USUAL AND NOT HAVE TO MAKE ANY SACRIFICES OR TAKE AWAY FROM THE STUDENT EXPERIENCE."

Martin de Bernardo, Technical Manager, Sheridan's Faculty of Animation, Arts and Design



IT MATTERS:

Use efficient software as remote workstation interface

Centralize workstation environment

Enable access to licensed software programs

Guarantee cybersecurity

Match students with on-campus machines

Support Wacom Tablets for artists

BUSINESS MATTERS:

Provide seamless remote campus experience

Increase efficiency

Offer equitable access to students and instructors

Reduce tedious administrative tasks

Manage remote connections and compute power with ease

ABOUT SHERIDAN COLLEGE'S FACULTY OF ANIMATION, ARTS AND DESIGN

Sheridan's Faculty of Animation, Arts and Design is Canada's largest art school. Internationally recognized for its programs, the faculty trains performers, animators, filmmakers, photographers, designers and artists. Sheridan's students use the latest technologies in the field in preparation for working in industry. More than 5,700 students attend programs within the Faculty joining alumni who have earned Emmys and Oscars over the years.

Partnering toward a solution

FAAD reached out to HP to iron out details and scale the use of a complete HP ZCentral solution with ZCentral Connect and ZCentral Remote Boost deploying a broker that would make machines accessible to both students and instructors in a precise and intelligent way.

Students were surveyed to gauge demand for remote access and determine their equipment's capabilities when the college reopened for a new term in 2020, de Bernado explains.

Students in different programs had different needs. For example, the computer animation group had the luxury of a 1:1 relationship with a computer, controlled by Remote Boost, whereas classical animation had 600 students and roughly 400 computers available to them. A broker, much like a host in a restaurant who directs guests to available tables, would prove to be useful in such a situation, de Bernado says.

However, he notes that the education environment is different from a corporate one. Computers are assigned in pools, based on the software required for programs within the faculty. Some students required access to certain machines with licensed software applicable to their field of study, while others might need to sign

out five computers at a time. The team brought these concerns to HP.

"When we reached out, the willingness to help from HP was great, because we had not budgeted for a broker," de Bernardo says. "They provided us with a free trial, and we were able to provide the testing and answers to how things work."

FAAD's wish list also included support for Wacom Tablets, enabling artists with a natural inking input experience remotely.

"It would have almost been a deal breaker if that hadn't been in place," de Bernardo says. "With the help of HP working on those things, we got it all sorted out."

Having sufficient pressure sensitivity for the Wacom Tablet to work remotely was a must-have for students who were drawing scenes and characters.

"It was a huge save. That was something the students were really panicking about in animation and HP got it done before the school year started," Roy says.

Remote access to high-end licensed software on Sheridan's computers was another requirement. Animation students, who tend to be daily, hardcore users within FAAD, needed to access these specialist programs with ease.



CUSTOMER AT A GLANCE

Sheridan



APPLICATION:

Use elements of HP ZCentral—ZCentral Connect, ZCentral Remote Boost, and soon ZCentral 4R—for a seamless transition to online learning within the Faculty of Animation, Arts and Design at Sheridan College.



HARDWARE:

- HP ZCentral 4R



SOFTWARE:

- HP ZCentral Connect
- HP ZCentral Remote Boost



Reaping the rewards

With HP's help, FAAD was up and running at the start of its Fall 2020 term. At first, remote access started at a staggered pace, granting access to a limited number of users at a time.

"We did not know if our internet pipe would be strong enough if everyone hit us up on our offer; if the floodgate would hold," de Bernardo says. "We increased the number gradually and got more and more students on it."

Students were given instructions on remote access and instructors conducted classes and supervised their work.

"Sometimes students will ask you to take control of their machines and it's just a really cool way to interact," says Kathryn Wehrle, who teaches courses in animation. "It's so abstract and yet so necessary. It's the unspoken conduit for this type of work constantly. We wouldn't be where we are without this available to us."

Wehrle is especially appreciative of student access to high-end software programs. As for Kuznetsov, his group film titled "Catch of the Day" is part of a student entry at the Ottawa Film Festival. For him, being able to adjust his remote workstation to match receiver display settings was remarkable.

"I set up my machine without any problems and it just started running," Kuznetsov says. "The great thing is that my system at home automatically opens the school's computer with the settings of my machine."

Yue Hong, who is pursuing a graduate certificate in Digital Creature Animation, finds the ability to render images and scenes remotely a big plus. She also has used Remote Boost to

share her screen so an instructor could check her written code.

"Everything is perfect," she says. "Especially for programs like Digital Creature and computer animation, we need to make our final film and do a lot of rendering. It takes a lot of time to do it with our local machine."

Eugenia Barone, who is in her fourth year studying animation, agrees. Having remote access has saved her time and made her more productive.

"I can use my computer to do something else while it's rendering on the computer at school," Barone says. "Otherwise, if I render on my personal computer it will take up a lot of power and I wouldn't be able to do anything else."

Students within the animation program with rendering needs, like Kuznetsov who used five machines at a time remotely to render scenes, were able to use more power, an ability developed within the broker. Additionally, the broker was able to identify idle machines on campus.

"We wanted to make sure all the machines are getting exercised the same way," de Bernardo says. "We wanted to grab the machine that has been idle the longest. That's the feedback we gave HP and they embedded it and made it happen. That's how our partnership evolved and that's why it's great to work with HP on this together."

On the technology front, Galaszkiwicz says having remote access has been a "get-out-of-jail-free" card. Tedious administrative tasks and troubleshooting are now much easier.

"We handle a lot of telephone and Zoom support now," Galaszkiwicz says. "Those students who have very weak machines or very weak internet, we can give them a 100 percent, always-

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Kathryn Wehrle, animation faculty, Sheridan’s Faculty of Animation, Arts and Design



working solution and then we’re off the hook for trying to troubleshoot and repair something we can’t put our hands on.”

Most of all, the elements within the ZCentral solution have enabled Sheridan College’s FAAD to maintain a consistent student experience. Its scalable nature—whether 10 or 500 students use it—has been a boon.

“It allowed us to do business as usual and not have to make any sacrifices or take away from the student experience,” de Bernardo says. “Because we could still provide access, they could do all the expected rendering and heavy lifting. From that perspective, we’ve now given students the power to sit in their homes and do their work where they would otherwise have had to be on campus constantly.”

Possibilities for the future

HP’s ZCentral Remote Boost, a 2020 Engineering Emmy Award Winner for its ability to provide creatives with remote access to advanced computing, continues to transform Sheridan’s FAAD student experience.

FAAD recently received approval for the HP ZCentral 4R, a powerful 1U rack workstation. Expandable and built for intense workloads in 3D, virtual reality, data science and engineering, the ZCentral 4R features the latest Intel® Xeon® W processors. It also supports NVIDIA® Quadro® RTX 8000 class graphics. Roy hopes to use it to support the growing needs at Sheridan.

De Bernardo and others are working with HP to develop creative ways to use the broker. In a virtual

environment he says, it’s challenging to know if students are already using machines in a lab or classroom.

“When it’s virtual and someone comes first and is already sitting at the computer, you can’t knock and say, ‘It’s time for you to leave,’” de Bernardo says. “That’s what we need to happen to make this work. The closest that you can come to a real environment is to say this lab is booked and the broker would know not to assign those machines.”

Also, knowing if a workstation is overwhelmed, unavailable or unable to work properly would help before assigning the equipment to a user.

“We would like more control and more summarized information of what’s going on in the system so we can react and plan,” Galaszkiwicz says. “We would also want control of groups of type of users, e.g. someone who uses it overnight or users who are not in a program and just taking a few courses. With more control to fit the expectations, then it will be easier to track who’s using what so that when the semester ends, we know which people we can take out of the system.”

In other words, Sheridan’s collaborative relationship with HP is expected to evolve and remain a fruitful exchange in the future.

“If both sides can bring value to the table, then it is worth more than paying money for the product,” de Bernardo says.



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¹ HP ZCentral Connect Software requires purchase of a perpetual floating license per simultaneous connection and purchase of 1 year ZCentral Connect Software Support Service and requires download at hp.com/ZCentral. Not available until early 2020. Requires HP ZCentral Remote Boost Software which can be downloaded at hp.com/ZCentralRemoteBoost, a Windows 10, Windows Server 2016 or newer operating system, Microsoft Active Directory and Intel Active Management Technology for select features.

² HP ZCentral Remote Boost Sender does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase. With non-Z sender devices, purchase of perpetual individual license or perpetual floating license per simultaneously executing versions and purchase of ZCentral Remote Boost Software Support is required. ZCentral Remote Boost Sender for non-Z Hardware requires a license and Windows 10, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems. macOS (10.14 or newer) operating system and ThinPro 7.2 are only supported on the receiver side. Requires network access. The software is available for download at hp.com/ZCentralRemoteBoost.

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4AA7-9972ENW, September 2021

