Research-Intensive University Selects Lumenera INFINITY Microscopy Cameras as Imaging Solution for State-of-the-Art Biology Labs

University of Ottawa Biology Department Chose Lumenera's INFINITY Cameras to Upgrade Its Imaging Solution

University of Ottawa undergraduate students returned to the labs this semester to find the microscopy stations newly equipped with Lumenera's INFINITY*2-3* and INFINTY*3-1* color digital cameras. The Biology Department needed to upgrade its imaging solution for the Olympus CX31 and Olympus SZ61 stereo microscopes currently in use. With the capacity to teach 392 lab students, the University wanted new, high quality microscopy cameras based on a USB 2.0 interface that offered high performance, and included image analysis software that was intuitive and easy for students to use.

Olympus Canada was awarded the tender to place 365 of Lumenera's INFINITY microscopy cameras into the Biology Department teaching labs at the University of Ottawa; one of Canada's leading research intensive universities.

"This year we decided to partner with Olympus and Lumenera to replace our digital cameras, so that we could keep moving forward with our state of the art lab facilities," said Lise Bélanger, Technical Supervisor for the Department of Biology. "We chose Lumenera's INFINITY*2-3* digital cameras on the basis of a good quality camera, with a strong price-to-performance ratio that also came with a very user friendly software package. We also enjoy the advantage of having a local supplier with whom we have developed an excellent relationship".

INFINITY Cameras Offer High Quality Images, Ease-of-Use, and the Eliminated Need for a FireWire Card

In 2004 the Biology Department moved into its new undergraduate teaching facility which includes a total of 10 labs. Each lab is equipped with a workstation that is a unique combination of a traditional wet bench and microscopy station, paired with a modern computer and monitor. Students work in pairs with a compound and dissection microscope, which are now equipped with Lumenera's INFINITY*2-3* connected to the workstation's computer. The 355 INFINITY2-3, 3 megapixel microscopy cameras and 10 INFINTY*3-1*, 1.4 megapixel cooled cameras are replacing cameras that were based on a FireWire interface for greater ease of use and the eliminated need for a FireWire card.

(continued on next page)

Highlights

- The University of Ottawa wanted new, high quality microscopy cameras based on a USB 2.0 interface that offered high performance, and included image analysis software that was intuitive and easy for students to use.
- The INFINITY*2-3* and INFINITY*3-1* cameras provided the image quality needed in challenging lab applications.

Lumenera corporation

7 CAPELLA COURT, OTTAWA, ON, CANADA K2E 8A7 | TEL (613) 736-4077 | FAX (613) 736-4071 | WWW.LUMENERA.COM | MARKETING@LUMENERA.COM

11102013

(continued from previous page)

The students have had a chance to put the new cameras to use, and are happy with the improvements they have experienced so far. "We have received very positive feedback from the students and faculty regarding the new INFINITY cameras," said Lise Bélanger. Lumenera ensured timely delivery of the large volume of cameras to synchronize with the start of the new school year. The team at Lumenera worked closely with the University to provide comprehensive support with delivery, hardware and software configurations.

The use of digital imaging has helped increase productivity and time spent in the lab. Having the ability to record observations and instantly view the high resolution images on the computer monitors has eliminated the labor intensive task of drawing the specimens. This has also encouraged a collaborative learning environment with discussions between lab partners occurring as they study the specimen at the same time, rather than taking turns looking down the microscope. The interaction between students and faculty has also become more interactive as the lab instructors have the ability to discuss and answer questions about what the students are seeing on the screen. The students also appreciate that the images taken with the cameras make it easier to later study at home and continue to work on materials once the lab is over.

Lumenera's INFINITY Cameras

Lumenera's INFINITY cameras are known for superior color reproduction and high sensitivity. The INFINITY*2-3* and INFINITY*3-1* cameras have provided the image quality needed in challenging lab applications, and have created a collaborative learning environment for the students at the University of Ottawa.

INFINITY*2-3* Product Highlights

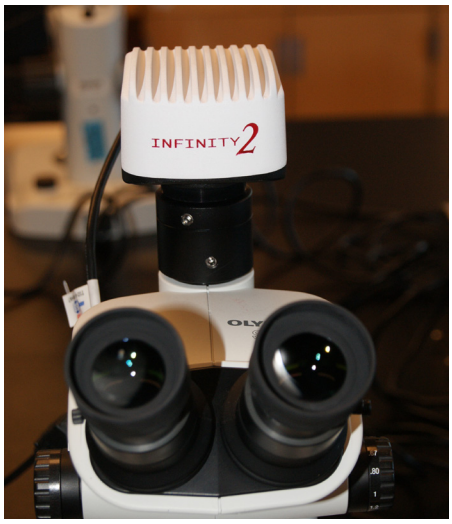
- USB 2.0 high-speed USB 2.0 interface camera for ease of installation on any computer
- Low noise characteristic 3.3 megapixel CCD image sensor
- Crisp color quality for the most demanding brightfield and darkfield microscopy applications
- Full color sub-windowing allows for rapid focus and scanning of samples
- 5 fps at full 2080 x 1536 resolution
- Select 8 and 12-bit pixel data modes

INFINITY*3-1* Product Highlights

- High-speed USB 2.0 (480Mbits/sec) interface for ease of installation with any computer
- Cooled feature reduces thermal noise during low light fluorescent imaging
- Low noise progressive scan 1.4 megapixel CCD image sensor
- Crisp color quality for the most demanding brightfield, phase contrast, and fluorescent applications including GFP, FISH, NIR, FRET, life science and geology
- 5 fps at full 1392 x 1040 resolution

Highlights

- The use of digital imaging has helped increase productivity and time spent in the lab.
- The team at Lumenera worked closely with the University to provide comprehensive support with delivery, hardware and software configurations.
- The INFINITY*2-3* and INFINITY*3-1* cameras have provided the image quality needed in challenging lab applications, and have created a collaborative learning environment for the students at the University of Ottawa.



About Lumenera

Lumenera Corporation, a division of Roper Technologies, headquartered in Ottawa, Canada, is a leading developer and manufacturer of high performance digital cameras and custom imaging solutions. Lumenera cameras are used worldwide in a diverse range of industrial, scientific and security applications.

Lumenera solutions provide unique combinations of speed, resolution and sensitivity in order to satisfy the most demanding digital imaging requirements. Lumenera customers achieve the benefit of superior price to performance ratios and faster time to market with the company's commitment to high quality, cost effective product solutions.

For further information about Lumenera, please visit www.lumenera.com or call 613-736-4077.

Lumenera corporation

7 CAPELLA COURT, OTTAWA, ON, CANADA K2E 8A7 | TEL (613) 736-4077 | FAX (613) 736-4071 | WWW.LUMENERA.COM | MARKETING@LUMENERA.COM

11102013