



Providing Remote Access to “Big Science” Facilities

Science Studio Puts Tools in the Hands of Researchers Across the Country

Project Name: Science Studio

Project Lead: University of Western Ontario

CANARIE Contribution: \$1.7 M

Participants:

- Canadian Light Source, Saskatoon, Saskatchewan
- IBM Canada
- Concordia University, Montreal, Quebec

What is Science Studio?

Science Studio is a Web-based application for remote experiment management that lets scientists anywhere experiment with x-ray beams at the Canadian Light Source or to use the electron microscope at the University of Western Ontario via CANARIE's high-speed network.

From the comfort of their own offices and when they want, researchers log onto a website, conduct experiments and get real-time results.

Users can share their experiment data on Science Studio with other researchers anywhere in the world.

Value to Research and to Canada:

- Supports research into the effects of chemical and mechanical stresses on a range of substances, including building materials and transport containers. This promotes enhanced safety in Canadian building and transportation industries.
- Enables rapid assessment of chemical elements and crystal structures in mine wastes, contaminated soils, and deposits in waterways, helping us understand how our environment changes over time.
- Drives more effective experimentation that results in greatly improved productivity and much more industrial relevance for synchrotrons such as the Canadian Light Source, the Brazilian Synchrotron, and the Advanced Light Source in the U.S.
- Maximizes the government's investment in scientific facilities by enabling greater use of these critical research resources.

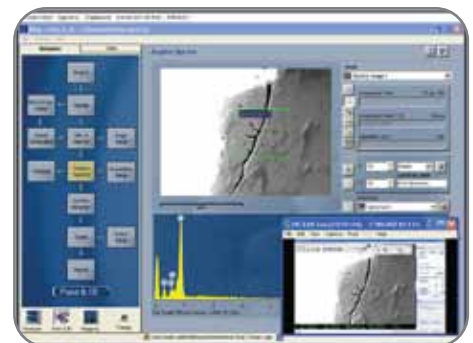
Did you know?

Brazil plans to install Canada's Science Studio platform at its synchrotron, and managers at the Australian synchrotron are evaluating it.



A high-energy beam of synchrotron x-rays illuminates a phosphor screen.

Source: Adam Hitchcock, Ning Chen, CLS Inc. and De-Tong Jiang, Guelph University



INCA computer screen showing energy-dispersive X-ray spectroscopy (EDX) analysis software.

Find out more: www.CANARIE.ca/en/programs/sciencestudioproject.com

Top image: Panoramic view of the Canadian Light Source synchrotron facility.

Credit: Canadian Light Source Inc.