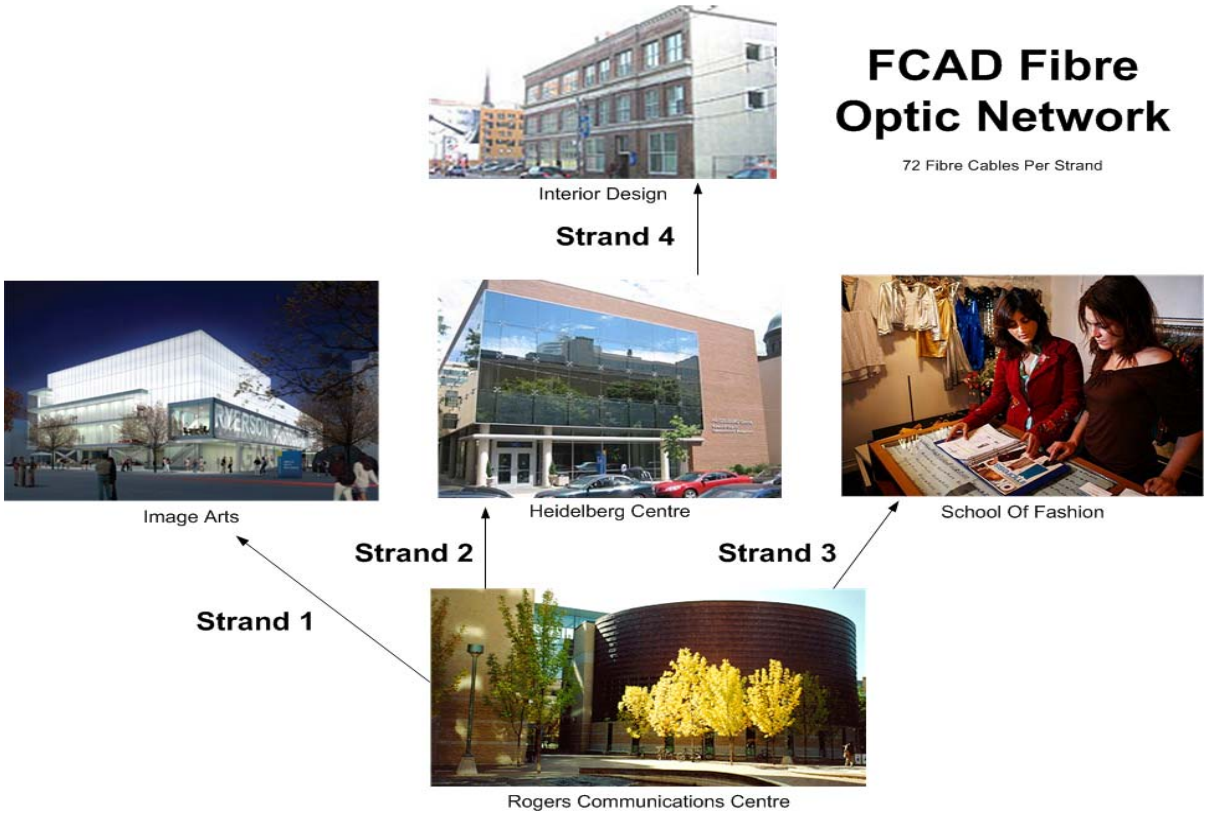
FCAD's Fiber Optic Network Underway With 144 Fiber Optic Cables Pulled Between the Rogers Communications Centre and Image Arts Building

From: Office of Program Director, Operations and Technology, Rogers Communications Centre

December 1, 2008 – The pull of the first of six strands of the Faculty of Communication and Designs Fiber Optic Network was completed today. Each strand in the pull contains 72 fiber cables and this first pull was comprised of two Fiber Optic strands between Ryerson University's Image Arts Building (IA) and the Rogers Communications Centre (RCC). This means a total of 144 fiber cables were pulled between the buildings and their purpose is to interconnect RCC located at 80 Gould Street with the IA which is located at 122 Bond Street. This installation will allow for future pulls from Image Arts that will interconnect all FCAD buildings south of Gould Street, east of Church Street and west of Bond Street.

FCAD's Fiber Optic Network is required because the design of Ryerson's Information Network (RIN) was designed in an era of 10 megabit Ethernet desktop connections and 56 kbit/s dial up modems. As such the RIN's backbone is constrained by a limit of one gigabit to carry all of Ryerson's administrative data across campus. With today's desktop computers equipped with gigabit network connections as standard fare, the RIN in its current state is not capable to meet the bandwidth requirements of FCAD's media intensive schools that are spread out across the Ryerson campus. The Fiber Optic network will allow for the interconnection of FCAD's IT facilities so they can operate in a modern context. FCAD's Fiber Optic Network will provide the network bandwidth required to produce media and to operate in area's of modern collaborative design.

Although it may take a few years before the fiber's become active FCAD currently has much of the physical production infrastructure is in place to develop a Campus wide back-end for a Digital Cinema Production Cluster. FCAD IT facilities also currently exist that allow for the production of advanced graphics, 3D visualization, audio production and non linear editing that can make use of such a network. With a storage area network becoming operational and a growing demand for more Network Attached Storage, the Fiber Optic network will provide the base photonic network that will make the entire FCAD enterprise more efficient.

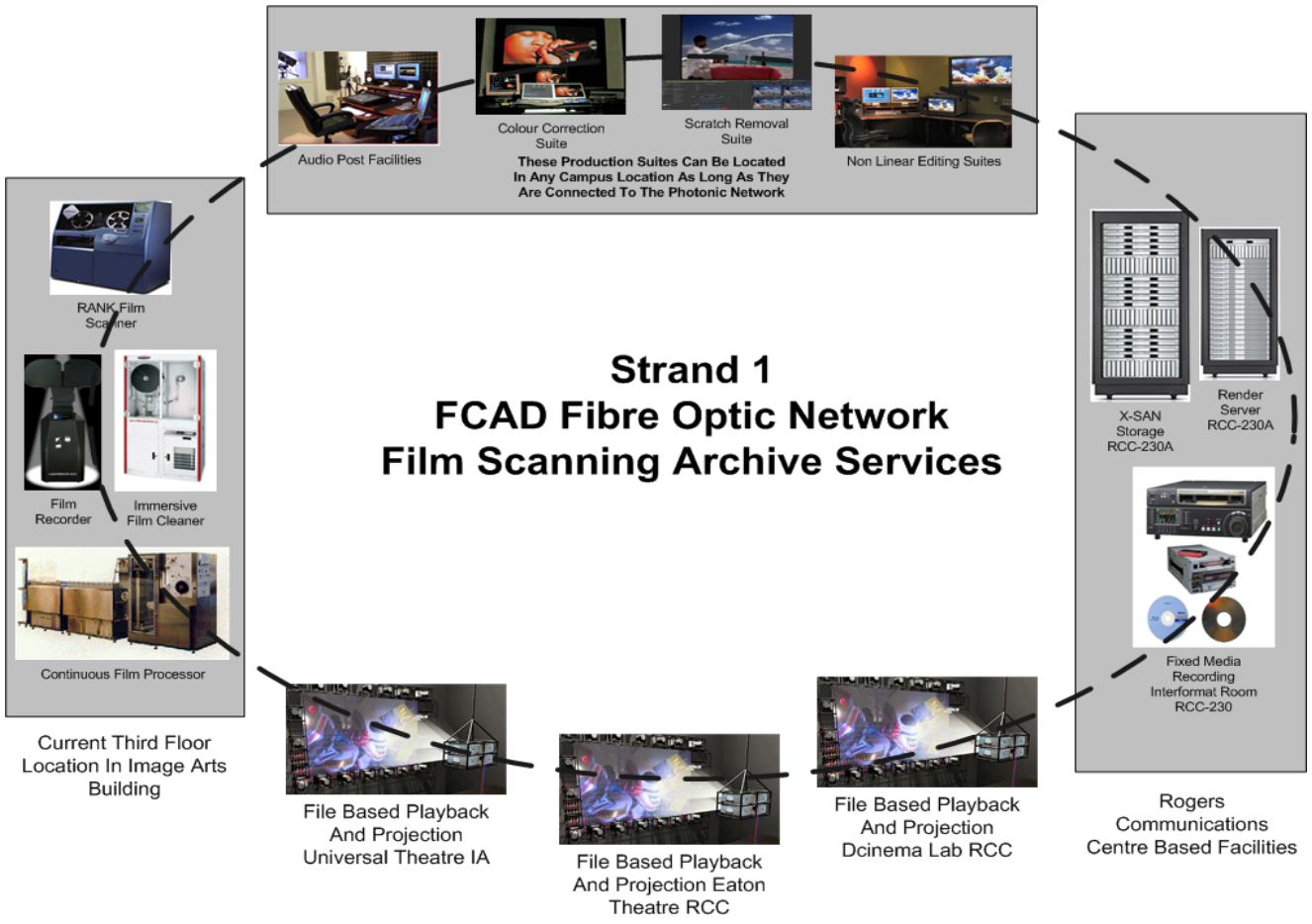


What Will This Investment Do?

File Based Distribution And Playback - As FCAD's Photonic Network gets tied into centralized storage, new processes and more efficient technologies can be employed. One such technology is file based playback of HDTV, 2K and 4K digital cinema materials to the various Theatres in FCAD's distribution and teaching chain. The implementation of the file based approach will eliminate much of the process FCAD currently undertakes to output materials to a physical medium and then provide expensive duplicate technology at each screening location to playback the material.

File based playback means that edited materials will playback to a theatre directly from disks that are located anywhere on the high speed network. This is similar to the newsroom system that allows for video editing and playback that has revolutionized the television news classes in Ryerson's School Of Journalism. File based workflow also means that video editing and other post production processes can occur anywhere on the network, in various FCAD schools and labs allowing for distributed production workflows.

Motion Picture Film Scanning for Archival Research and for Archival Graduate Programs - Of late several research opportunities have arisen in the area of motion picture film archiving. Given space concerns, environmental needs (ie.heat/power), a production cluster approach is essential to its design. With the FCAD Fibre Optic Network in place a distributed system can be built that takes advantage of current investments. Film cleaning, scanning, printing and processing can be developed in Image Arts. Those can act as a service facility central to its Film Studies and related Graduate programs. The design can also take advantage of storage, rendering and electronic output facilities that have been constructed in the Rogers Communications Centre. Required workstations for elements like scratch removal non linear editing stations, colour correction and acoustically correct audio production area's --that have been constructed in the Rogers Centre-- can play a role in the restoration process. And finally the Archival process can take advantage of the file based playback, in true theatre environments prior to committing productions back to their final medium be it motion picture film, optical disc or tape based mediums.



The goal of the cluster approach is to avoid duplicating facilities and manpower, make maximum use of limited space and to construct an advanced media infrastructure using as few dollars as is feasible. Without the FCAD Fiber Optic Network separate computer network, storage, editing, colour correction and audio production facilities would have to be constructed specifically for these projects. This puts further pressure on limited dollars, support from a manpower perspective and space.

The FCAD Fiber Optic Network Is Key to FCAD's Growth - As the network gets put into place and the appropriate technology is applied, there will be numerous instances where duplicate processes will no longer be relevant. While FCAD will always have IT technology bills to pay, networks of this nature allow FCAD to maximize the use of facilities, rooms and people and will yield immediate efficiencies in related research efforts, the Non Linear Editing Production Cluster and in our Mixed Reality Production Cluster.

In addition there will be numerous instances where FCAD can more easily, quickly and economically provision network services around its research efforts as outlined above in the plans for the Motion Picture Film Scanning for Archival Research arm of the Digital Cinema Production Cluster.

More information on the Rogers Communications Centre, the shared FCAD facilities it operates and the specifics of the labs that it operates can be found at **www.rcc.ryerson.ca/technology/index.htm**