

University of Alaska Fairbanks (UAF):
Life Sciences Research and Teaching Facility
Fairbanks, Alaska

Architect/Engineers

Bezirk Durst Seiser, Inc. PDC Engineers, Inc.
SmithGroupJJR RFD Inc.

General Contractor

Davis Constructors and Engineers, Inc.

Mechanical Contractor

General Mechanical, Inc.

Ruskin Products

- Fire Dampers and Combination Fire/Smoke Dampers with Ruskin Inspector™ Testing & Monitoring System



SITUATION

With great anticipation and excitement, The University of Alaska in Fairbanks (UAF) began constructing their new Life Sciences Research & Teaching Facility in 2011. It will provide multiuse teaching and research labs, classrooms, and office space for life science research and academic purposes. UAF is located in the interior of Alaska and sees extreme variations in outside conditions between the summer and winter. Summer temperatures can reach up to +100F and then fall as low as -50F during the winter. The sun stays above the horizon for over 21 hours on June 21st and will only be above the horizon for 4 hours on December 21st.

UAF Facilities Services, the Project Manager, is constantly working to make sure the buildings are operational at all times of the year, but most importantly when it is -50F outside. One small problem at extreme cold temperatures can result in more problems quickly. The range and variation of building age, construction type, HVAC systems, electrical systems, new and old remodels makes the maintaining of the building a challenge. Any time they have the opportunity to use cost effective technology to reduce the amount of man hours spent maintaining a building is a great long term return on investment.

According to one UAF official "Life Sciences will be constructed with the most current, energy efficient and sustainable materials available to a project in such a northern climate."

APPLICATION

UAF Facilities Services has many challenges keeping buildings operational during their extreme weather conditions. They are finding that maintaining the FSD's in existing buildings is rather time consuming. Time is spent finding the FSD location(s), getting access and cycle testing. Then if one fails, it is physically noted and then replacement parts are ordered and replaced at a later time. Inspector™ gives them time saving management of all their FSD's in the new Life Science Building. Inspector™ will also provide them alarm failures, FSD location, FSD tag and actuator information, all in one panel and on their campus wide controls network.

A GREAT SYSTEM SOLUTION

JP Sheldon Co. was successful in providing many Ruskin products on the project. In addition to the fire/smokes with the **Ruskin Inspector™**, other Ruskin products included

- | | | | |
|---------|-----------|-------------|---------|
| • FSD60 | • FSD36LP | • ELF6375DX | • CDR92 |
| • FSD36 | • FSDR25 | • CDT150BF | • CD60 |

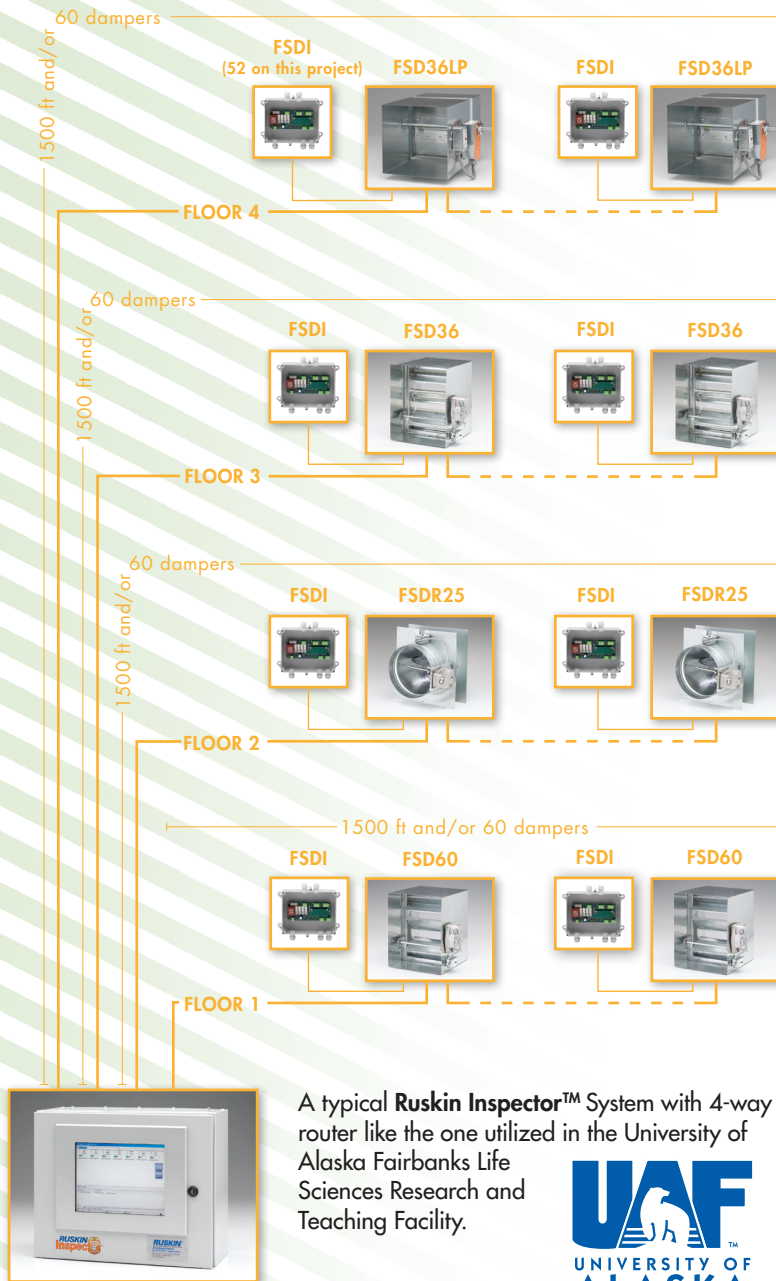
Said **Andrew Lee of Sheldon**. "We have a long relationship with Paul Bruhn, P.E., Senior Mechanical Facilities Engineer and after returning from Da Best 2012 ASHRAE Expo Chicago armed with Ruskin Inspector™ brochures, I knew of an opportunity at UAF. I mailed Paul a brochure, along with some follow up calls and arranged a site visit in Fairbanks. With the coaching help and confidence of our Regional Manager, Richard Cravy, we were able to provide the Ruskin Inspector™ as an improvement to the project with the building under construction"

MOVING FORWARD

Andrew went on to say, "UAF would like to have Inspector™ as part of the new Engineering building specifications. We are looking at the feasibility of Inspector™ in existing buildings as there are more physical barriers than new construction. The facilities engineers are very excited about Inspector™ and we are ecstatic that a long term relationship with Facilities Services is going to be a win-win for all parties involved."

(continued)

NETWORK SCHEMATIC



A typical **Ruskin Inspector™** System with 4-way router like the one utilized in the University of Alaska Fairbanks Life Sciences Research and Teaching Facility.



PRODUCT DETAIL



Control Panel (FSDPC)

The **Ruskin Inspector™** consists of a Panel PC, UPS and preloaded software. The system communicates with damper interfaces (FSDI) to

provide intelligent monitoring of motorized dampers and manual fire dampers. The data network cabling enables substantial reduction in costs when compared with conventional systems.

The Panel PC is supplied with **Ruskin Inspector™** software and operates on an extremely user friendly embedded platform. The server architecture delivers new benefits such as reduced commissioning time, ease of configuration, simplified operation and automatic scheduled damper testing.



Fire Smoke Damper Interface (FSDI)

Model FSDI is required for each fire smoke damper used with the **Ruskin Inspector™** System.

The FSDI monitors and tests motorized Fire/Smoke dampers. The device ensures correct operation and status of the damper and provides an alarm at the PC Panel in the event of damper failure.

When ordered with a 0-10VDC or 2-10VDC actuator, the FSDI functions as either a modulating or three position damper. This feature is field selectable and makes the damper suitable for full control or balancing applications.



Ruskin's FSD36LP is Low Profile and High Performance

Its single blade and unique blade seal design means that the FSD36LP has the Lowest Pressure Drop of any FSD in the industry including typical airfoil blade dampers.

RUSKIN®
Air & Sound Control
Specified by Many – Equaled by None

