Dunn Paper in Port Huron, Michigan, USA, has a strategy for success: keep producing and improving its core paper products while selectively moving into new market niches. To follow this winning plan, Dunn’s president and CEO, Brent Earnshaw, says they update their automation carefully and try to make sure that every investment brings swift payback.

ABB recently upgraded Dunn’s leading machine, PM3, by installing an ABB Quality Control QCS800xA system. Among the mill’s newest automation, PM3 features a 3,429 mm (135 inch) trim and has a maximum drive speed of 610 m (2,000 feet) per minute.

The new QCS system, based on ABB’s System 800xA Open Control System, includes MD Controls (MD Weight, MD Moisture, Drystock, Auto Grade Change, Headbox Control, Coordinated Speed Control and Coordinated Dryer Control) and CD Controls (Slice Profiler, IR Dryer and a new steambox). The system generates a wide range of system reports including reel, grade, day/shift and roll/set.

The new ABB automation replaced an Impact QCS. An ABB AC800M controller and S800 I/O replaced a Bailey distributed control system.

Although ABB removed Dunn’s outdated hardware, when possible the ABB team took advantage of their engineering skills to make changes on-site that would make use of existing equipment. One example: to save costs for Dunn, ABB re-engineered a comm.card that communicated with an IR dryer, saving some components of the S800 I/O.

Founded in 1924, Dunn has always made product quality a top priority. Originally a family-owned company, over the years Dunn changed management several times and today...
is owned by Meriturn Partners. The mill currently produces 80,000 tons of paper per year.

Dunn has always manufactured specialty papers for food-related applications. Today these include everything from fast food wrappings to pouch papers for sauces and mixes. As a result, Dunn has to meet especially rigorous quality standards. The new system provides enhanced quality that has proven to be essential for Dunn. With the new ABB QCS, Dunn has experienced a 12% decrease in product defects, and complaints have dropped by half.

The new QCS is already bringing greater efficiency to the mill. Importantly, the speed on PM3 has increased dramatically, allowing operators to change paper grades 10 percent faster than they had previously. The increased speed is critical because PM3 makes as many as three grade changes each day. Mill managers estimate this will save the mill up to USD 250,000 per year. According to Earnshaw, this kind of savings is another major reason why Dunn invested in the ABB Quality Control QCS800xA.