

# Pascorp: Digital Process Optimization Gives Papermaker Competitive Edge

## RESULTS

- 50%-75% reduced wiring cost
- Reduced engineering cost
- Reduced operator training cost
- Reduced maintenance cost
- Improved product quality
- Improved process control
- Increased throughput

## APPLICATION

Pulping, paper mill

## CUSTOMER

Pascorp, in Bentong, Malaysia, makes medium paper for corrugated boxes from 100% recycled stock.

## CHALLENGE

Until recently, the paper maker was government subsidized, operating a single paper machine that had been in operation since 1992. Their competitiveness was hampered by unreliable equipment, low production volume and high maintenance costs.

## SOLUTION

Pascorp upgraded the automation of its paper machine with the DeltaV™ digital automation system, as part of the PlantWeb™ architecture from Emerson Process Management.

As a result, the stock production dramatically increased. With the purchase of a second paper machine, Pascorp more fully implemented the PlantWeb architecture, combining the DeltaV system with FOUNDATION fieldbus communications and smart field devices for a digital plant-wide control solution.

## Engineering savings

Notes senior plant manager Shamsudin B. Abd Rashid, "To configure, do the wiring and install the hardware for this number of I/O would have taken at least two to three weeks, but with fieldbus and the DeltaV system it only took one week."



***"It is a very reliable product . I can show you that our production trends are going up since we installed the DeltaV system. In the old plant we produced 180 tons of medium paper or liner per day. In the new plant, we produce 200 tons per day, and our target is to increase to 300 tons per day within two or three months, with an eventual total goal of around 550 tons per day."***

**Shamsudin B. Abd Rashid**

Senior Plant Manager, Pascorp Paper Industries Berhad



For more information:  
[www.EmersonProcess.com/DeltaV](http://www.EmersonProcess.com/DeltaV)



Paper product manager Rosli B. Mat Derus adds “It was definitely much easier to commission the new paper machine (PM 2) compared to the old machine (PM 1).”

The project was completed 3 months ahead of schedule. Pascorp also saved on operator training. Says junior electrical engineer Fahrurazi Bin Abu: “I basically learned how to operate the system by myself.” Later, he says, an Emerson representative during a maintenance visit showed him how to calibrate and set up the system. Bin Abu and other engineers are now confident in their ability to configure and use the system with any devices in the plant.

### **Increased process control**

Says Mat Derus, “The DeltaV lets us see our process in more detail. Just sitting in front of the monitor, I can see what is happening in the entire process.”

The digital automation system helped Pascorp optimize its process for better product quality and higher throughput.

Whereas it took Pascorp nearly three years to stabilize its process on PM 1, the DeltaV system and fieldbus technologies allowed the company to stabilize the new machine within about three months—producing good product within a short period, according to Pascorp’s managing director Mas’ut Samah. He attributes that success entirely to the automation system.

### **Increased throughput**

The stability resulted not only in improved quality, but in improved throughput. “It is a very reliable product,” says Abd Rashid, “I can show you that our production trends are going up since we installed the DeltaV system. In the old plant we produced 180 tons of medium paper or liner per day. In the new plant, we produce 200 tons per day, and our target is to increase to 300 tons per day within two or three months, with an eventual total goal of around 550 tons per day.”

### **Increased reliability, reduced maintenance costs**

The digital field devices’ embedded diagnostics not only contributed to reliability, but reduced maintenance costs. Abd Rashid notes, “With AMS, you don’t need to worry about your instruments. You can tell from AMS whether the instrument is working or not before you purchase a new one, meaning that you save money, you save time, you save manpower. With AMS, now I can check 100% of my plant. I know a week or a month before it’s time to change out a device, so with AMS I solve a lot of my problems. We have eliminated unnecessary maintenance.”

The digital system’s embedded historian lets Pascorp track, pinpoint, correct and document process variables and the documentation helps the company maintain ISO compliance.

***“At the second plant, the new plant, we have around 500 I/O. Our expectation is we may go to around 2000 I/O on the DeltaV system. PM 2 is presently controlled only 40% to 50% on the DeltaV system. Future plans include linking the motor control center, as well as converting the remainder of PM 1 to DeltaV system control.”***

**Mas’ut Samah**

Managing Director, Pascorp Paper Industries Berhad



Because of Emerson's global network of independent sales and engineering representatives, Pascorp knows it can count on local support to ensure continued process performance. Samah says that running machines 24 hours a day demands responsive support—the closer, the better.

### Improved competitive position

Perhaps most significant, the Emerson products and its PlantWeb digital plant architecture made Pascorp more competitive and contributed to the company's decision to go public. Now, Pascorp is looking for future opportunities to implement the system.

Says Samah, "At the second plant, the new plant, we have around 500 I/O. Our expectation is we may go to around 2000 I/O on the DeltaV system. PM 2 is presently controlled only 40% to 50% on the DeltaV system. Future plans include linking the motor control center, as well as converting the remainder of PM1 to DeltaV system control."

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