



**OVERVIEW**

The Community College of Allegheny County needed to tame a paper jungle in their maintenance department. They chose PMC for its ease of use and powerful reporting capabilities.

**MARKET**

Educational facility

**PRODUCTS**

PMC

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Case Study:

# Community College of Allegheny County

Since 1966, the Community College of Allegheny County (CCAC) in Pittsburgh, Pennsylvania, has provided affordable, quality education to the residents of Allegheny County and surrounding areas. The college now has four regional campuses, nine major off-campus centers, and nearly 400 neighborhood locations.

CCAC is a comprehensive two-year college offering more than 170 degree programs. In the past three decades, more than 55,000 people have earned degrees from CCAC.



## An Ocean of Paper Made Gathering Data Difficult

Several years ago, CCAC decided to implement a computerized maintenance management system (CMMS). Bob Brieck, who at that time was a physical plant supervisor, was one of those given the task of selecting the system.

Briek recalls, “We used to keep the preventive maintenance schedule and instructions in 12 three-ring binders. Whenever a preventive maintenance work order needed to be prepared, a clerk had to take out the appropriate instructions, copy the pages, distribute them, and return the originals to the binder.”

“We were drowning in paper,” continues Briek. “Anytime we wanted specific information, for example, how much we spent on a certain air handler last year, we had to go leafing through files and purchase orders. It was extremely time consuming. Worse, instructions would get lost, and preventive maintenance was at times overlooked.”

The CCAC selection committee started with seven or eight systems, narrowed their choice down to three, and finally selected PMC. “It was a difficult decision,” Briek explains. “But we chose PMC because it was more user-friendly, and the reports it could generate blew everyone else out of the water.”

## Limited Hours for Preventive Maintenance Requires Advance Planning

Today, Briek is the operations administrator for CCAC. He works with five sites, and was responsible for implementing PMC at all of them. For each site, he loaded the software onto the computer, selected the appropriate equipment, wrote preventive maintenance instructions and tasks, identified the maintenance employees, and delivered the computers to the sites. He then conducted short training sessions for the site supervisors. “You don’t need to be a programmer to use PMC,” says Briek. “I can train someone how to use it in an hour or two.”

Across all sites, Briek says they average about 900 scheduled PM work orders a week. The departments also handle about 200 unscheduled tasks each week. Equipment receiving preventive maintenance includes boilers, chillers, air handling units, fan coil units, elevators, escalators, exhaust fans, vehicles, roofs, doors, emergency generators, etc. Priority was given to equipment that upon failure would cause the most disruption to classes.

PMC automatically prioritizes the work orders. Using the capacity-planning tool in PMC, Briek can move work from one day to the next, ensuring that the mechanics maintain a reasonable workload.

At the beginning of a shift, the mechanics are given their work orders. They pull the parts they will need and visit each piece of equipment, tracking hours for each work order. If an item is deficient or needs corrective action, the mechanic notes it on the work order. At the shift end, each mechanic signs off on his or her work orders. Completed ones are entered into PMC and closed out with necessary labor and materials applied. Additional work generates a new work order.

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“We run classes seven days a week, and the rooms are tied up from 7:30am to 10:30pm; that doesn’t give us a lot of time to do preventive maintenance,” Brieck says. “We don’t want to say, ‘We have to get in, you have to get out.’ To ensure that no one is inconvenienced, we often schedule PM work orders for the midnight shift.”

The departments also handle about 200 unscheduled tasks each week. “Typical unscheduled jobs include fixing loose doorknobs and replacing loose ceiling tiles. But there are some we don’t track. It’s just not worth our time to make a note of every screw or picture we hang. We’re looking for the costly items.”

Briek has an innovative method to help his customers identify which person on his maintenance staff promised to take care of a particular task. If time goes by and a problem still hasn’t been addressed, customers can look through photos of staff members that Briek loaded into PMC. This way Briek can then identify whom they spoke with and follow up appropriately.

## Campus-wide Consistency

Briek and the physical plant supervisors at the campus locations developed standard abbreviations for parts so a particular abbreviation denotes the same thing throughout the college. “This way staff members can transfer to a different part of the college without having to learn another ‘language,’” says Briek.

The standard language is particularly important because each campus is using the software a little differently. On the North Campus, Ken Weber, the physical plant supervisor, has been using PMC to track project work, including some capital renovations.

“We recently took a group of four faculty offices on the North Campus and converted the space into a video conference area,” explains Briek. “Ken had an estimate of the charges, but with PMC we tracked our in-house labor charges too, as well as the materials we purchased to construct and equip the room.”

“Then by changing one number in PMC we were able to deactivate the faculty offices and activate the new conference room,” he continues. “We didn’t lose the history on the equipment in the rooms. If someone calls and says they have no air, we know which ventilation equipment is involved.”

Floor plans are also embedded into the PMC system, complete with arrows that show where essential out-of-sight equipment is kept, such as a three-way valve that is used in regulating the temperature of a classroom. “People know exactly where to look, which saves time and eliminates aggravation,” says Briek.

## Reports Provide Vital Information

Briek can run reports to determine which pieces of equipment are costing the most to maintain. “If we have a failure on a piece of equipment, we take a closer look,” he

says. “For example, if a drive belt fails we’ll look at the preventive maintenance record. When was it last looked at or replaced? Was it repaired correctly? Maybe we need to invest a dollar in order to save \$300. We can determine if people need additional training, or if there is a bad product line from a vendor. We want to do the job once and do it right. Taking 10 minutes to do something right could save us 10 hours later.”

Briek relies on PMC to tell him when a particular piece of equipment needs to be replaced. “Based on the repair/cost history we can make more reliable decisions regarding repair or replacement,” he says. “If people complained a lot in the past, an item would get replaced.”

“But that doesn’t mean it’s the best use of our resources,” he continues. “Although we hear a lot about air conditioning, perhaps a greater concern is a boiler we’ve spent \$20,000 on. Perhaps it’s on its last legs and it’s not going to make it through another year. People will forget about the boiler — out of sight, out of mind. Now we can spend funds on the right system because we can link repair costs and labor hours to each piece of equipment.”

## What the Future Holds for PMC at CCAC

In the future, Briek would like to see all five sites linked by a network enabling each staff member to take advantage of the information stored in the program, and permitting the sharing of parts among the sites. “If it’s late at night and all of the supply houses are closed, people would be able to use the system to discover if one of the other sites has a needed part in stock. This way, for example, we could turn a 48-hour outage into a four-hour outage.”

Briek would also like faculty members to be able to enter needed repairs right into the program. Faculty members could then monitor the status of the work order. “They would never have to pick up a telephone to inform us of the problem,” says Briek.

Briek is so pleased with PMC’s performance that he has recommended the software to several other companies looking for a CMMS. “The DPSI people at the technical end are great,” says Briek. “They know their stuff, and help me work through everything. One time, I had trouble understanding what they wanted me to do and a lady at the help desk talked me through zipping up my files and sending them to her. She fixed them, sent them back, and got me back up and running. It’s just amazing.”

“One of the Facilities Management department’s responsibilities is to protect the assets of the institution. If those assets aren’t getting looked at when they need to, there’s a good chance they’ll fail. With PMC, we can be assured that those valuable assets are getting looked at on schedule.”

“We don’t want to have an asset fail and make us cancel classes for our customers,” continues Briek. “The customers are number one; we need to keep them happy. PMC helps us do that.”