

The Next Generation:

A computer schedules golf course maintenance

BY STEVE MCGINNIS
GOLF COURSE SUPERINTENDENT

About two years ago, my boss and I were discussing the ever-present problems of golf course maintenance — member complaints about things not getting done, people not showing up for work, unscheduled and unbudgeted special projects and what my boss refers to as my weekly request for more manpower.

My boss has a neighbor who was a VP with a major national computer manufacturer and he wondered aloud whether I thought the fellow might be able to help us to better schedule manpower and equipment. I wondered silently what I might be letting myself in for since I knew nothing about computers. After many more discussions, we agreed to hire the man as a consultant to do an operations study of the South course.

The objective was to determine if a computer program could help us maximize a schedule of manpower, material and equipment. What I got was more than I expected in the way of several bonuses which I will describe later.

We began. The consultant first secured aerial photos of the course and enlarged them to show more detail. Together we used the enlarged photos to define the boundaries of each hole. Then he asked me to list every job we did on each hole. In total, we listed 135 different operations! We never dreamed there were that many.

But wait, it got worse. He asked us to describe each job (which he insisted on calling a "task") and this turned out to be the single most difficult thing we were asked to do. But it resulted in bonus number 1: From all of our input, he developed an *Operations Manual* which describes "How To" — from mowing the greens to maintaining the rest rooms. This manual is now permanently located in the work area and is used daily to train new em-

ployees and to re-train old ones. Communication between superintendent and employee is now simple and effective.

We are confident that this manual will satisfy any OSHA representative who may drop in because not only does it fully describe the duties of the employee, it also details special precautions they must take, including the wearing of hard hats and hard-toed shoes where necessary. This manual alone is worth the cost of the study.

Armed with the *Operations Manual*, the consultant went to work in earnest building a schedule.

These computer guys live in a world of their own. They can't take a month and agree that it has four weeks like normal people because they worry about odd days left over at the end of four weeks and new months starting on 13 four-week periods of operation. Now we have no odd days left over in a 52-week schedule.

He physically measured tees, greens, and bunkers on each hole. He counted irrigation heads, trees and shrubs. He timed the mowing of fairways and roughs, and the changing of cup locations. Then he reviewed his estimates with crew members to satisfy them that his averages were more than reasonable. He took the times required to do each "task," added factors for travel time from the maintenance area to the hole, added for lunch breaks, smoke breaks, mystery breaks. Next he plugged in labor rates for each employee, added all benefits and came up with something the accountants call a "fully-loaded labor burden rate." Lastly, he added in material requirements per hole.

He then installed a computer in my office and gave me some very basic instructions. The computer produces among other things a manpower graph which shows average and peak labor requirements for the year. In addition to daily sched-

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ules, it gives me weekly and monthly schedules for advance planning.

Its biggest advantage is that it gives me the ability to easily reschedule for rain-outs, emergencies and no-shows, and to maximize the use of the labor force. The system has been in use for over a year now. It took a few weeks of practice for me to become at ease with the system. My kids know more about computers than I do — or care to, but it's no problem to print out daily schedules or adjust budgets for wage rate changes.

A few other bonuses: We have a system that the accounting department understands and doesn't argue with. Also if management or the membership wants to add a few more traps per hole, we can accurately tell them how much costs will increase. Conversely, if they ask us to cut our budget 5% or 10% we have the ability to quickly determine how best to do it and estimate the trade-offs. And nobody can dispute our figures. Communication is much easier now.



Steve McGinnis says printing daily schedules with a computer gives organization to a maintenance crew.

As they say in the computer industry, how did we ever live without it.

What's next? The consultant has just completed a computerized preventive maintenance program for our equipment which we are installing right now. We have high expectations for it.

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