

Computer helps ask the right equipment questions... and gives interesting answers

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An earlier article by Steve McGinnis on computer-aided golf course maintenance scheduling indicated that a new element of the management program was being developed to help with equipment issues. He has moved up to manage the Big Cypress facility in Lakeland and I am now using the computer system he described, which now also helps to manage our equipment.

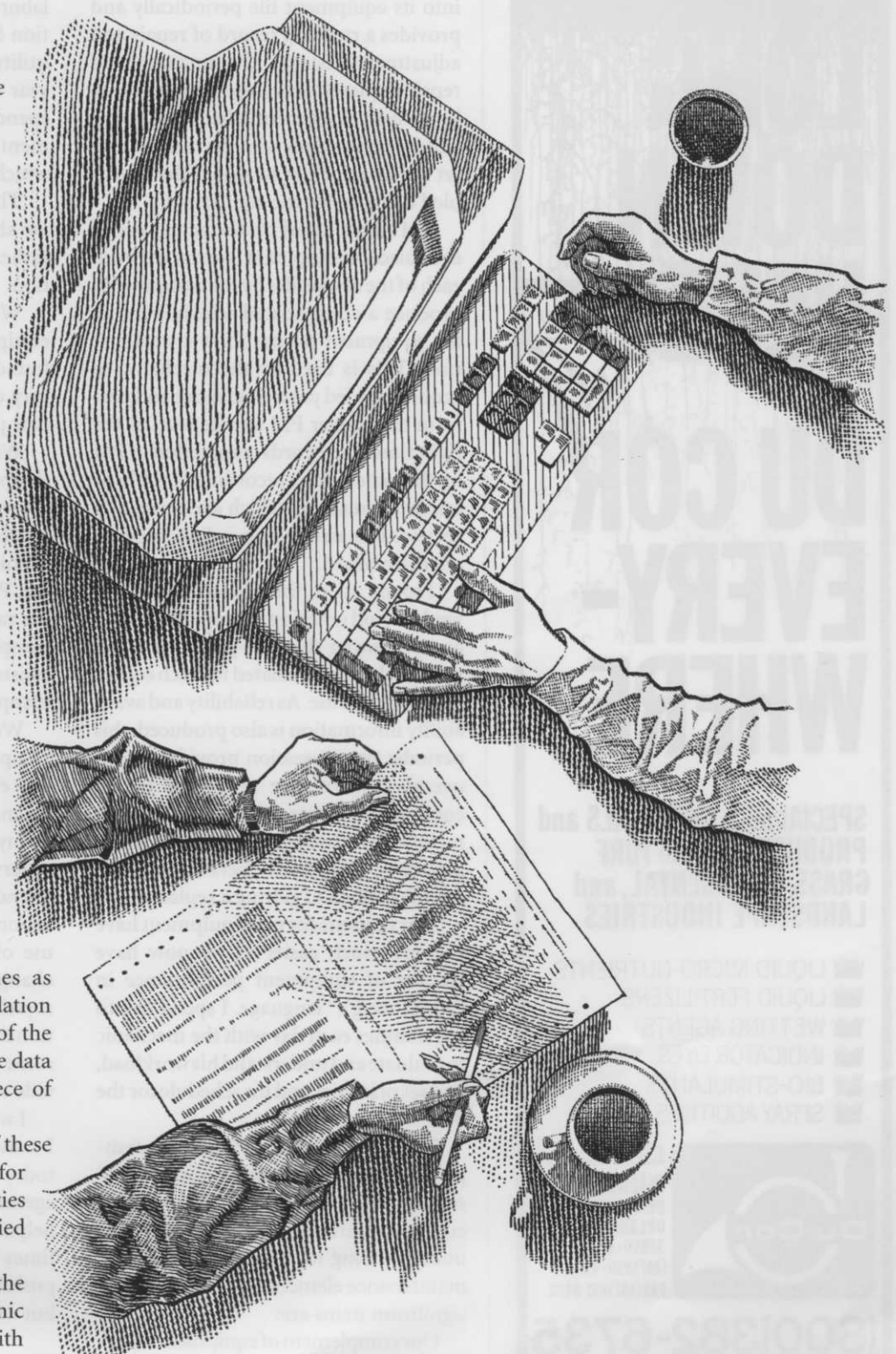
• Our consultant worked with us in gathering information about each piece of equipment we were using, such as:

- The date it was placed into service
- What we originally paid for it
- Where and how much was it used through out the year
- How much fuel did it use for an hour
- How often do we sharpen blades or replace tines
- What are the manufacturer-recommended periodic maintenances
- How much time and parts are needed to do PM
- What has been its repair history and cost.

Typical life/depreciation times as found in the National Golf Foundation and GCSAA studies for our area of the country were stored with the above data into a computer file for each piece of equipment by the consultant.

A book containing printouts of these files was provided to our mechanic for reference regarding the PM activities needed for all time intervals specified by the manufacturer.

A simple form was provided by the consultant for the operator, mechanic or myself to record any problem with



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We are spending 35% of the value of our equipment each year on keeping it running, which is not very cost efficient.

the equipment and for the mechanic to record the amount of time and parts needed to repair or make adjustments. This repair information is also entered into its equipment file periodically and provides a running record of repair and adjustment history. The uncompleted repair request forms (repair backlog) are kept on an equipment scheduling board which I review daily with the mechanic to set repair priorities to match the scheduled demand for the equipment.

PM needs based on the actual use of each piece of equipment is extracted from each of the above files by the computer to produce a consolidated schedule for all the equipment we use for a 4 week period. This is used by the mechanic to acquire needed parts in advance and perform the proper PM service level at the right time. He records completion of PM on this schedule by recording Hobb's, or odometer readings which are constantly reviewed to assure proper PM intervals are maintained.

I spend about three hours each four-week period entering repair activity data and reviewing the cost-per-hour trend results which is calculated for each equipment item we use. As reliability and availability information is also produced, this periodic system session provides me an overall performance review of all the equipment we use, where I can determine when it becomes too costly to keep a piece of equipment operating and begin the process of getting a replacement.

Our requests for new equipment have become much easier as we now have records of equipment performance in "accounting's" language. I spend five to ten minutes each day with the mechanic to evaluate and understand his workload, and set priorities and his schedule for the day.

This equipment data base, the computer and the consultant have developed some interesting information about our equipment situation which brings a new understanding to managing this course maintenance element. Some of the most significant items are:

Our complement of equipment if pur-

chased new today would cost over \$500,000. If sold today we would get less than \$200,000.

Our equipment R&M parts, labor, and labor burden (Soc. Sec., benefits, vacation & holiday, management, space and utility allocations, etc.) budget for the year comes to about \$70,000. We are spending 35% of the value of our equipment each year on keeping it running, which is not very cost efficient.

There are some equipment items that we should rent or contact for service, rather than own, due to their low utilization.

We have conducted some major equipment refurbishments and have found that some of them have not been very cost-effective when compared to a new procurement.

We are spending more labor hours sharpening equipment than either making repairs or doing PM.

We need just over 40 hours of mechanics' time each week to do sharpening, PMs and repairs at our present failure rates of obviously an old equipment complement. We have a mechanic and assistant on board, so we must have some manpower available.

We have used this computer-aided equipment management system for the past eight months, four months of start-up and tuning by Steve and four months by myself. As you can see from the above observations, we have a number of things to evaluate and resolve within my organization and with my management. Initial use of this system has produced some changes in my operation and educated myself and my management. An additional six months of use should firm up some answers and most likely will provide some new questions.

I was totally computer illiterate when I came on board four months ago, and today find the computer and the management system to be my friend. It is helping me get my job done in these times where we all are trying and being pushed to become more cost effective but maintain the quality of our results.