

# Computers As Management Tools

The computer age started on golf courses with the advent of computerized irrigation control systems which gave superintendents tremendous flexibility in managing watering cycles, which has become even more important in a time of water restrictions.

Beyond irrigation, computers are proving to be important tools for personnel and payroll management, equipment record keeping, budget preparation and presentation, GPS mapping and, most of all, rapid communications.

Superintendents are experimenting with digital photography for documentation of projects and for show-and-tell sessions with green committees and owners. Typing skills seem to be the major limitation to many superintendents who were products of the traditional school of agronomy. For them, conversion to the computer age has been slower. You don't need bells and whistles to grow good turf, but it never hurts to learn to use the latest technology to your best advantage.

Computer use in golf course maintenance will grow as the younger, computer-literate generation slowly replaces the old guard.

## Computers at the Great Outdoors Resort Getting Computerized

My use of computers in the everyday operation has increased significantly the past 11 years at The Great Outdoors. When I started here in 1990 everything was on paper and filed somewhat neatly in cabinets. The irrigation was run on a Toro Vari-Time system and the need for a computer was minimal.

However as things progressed, I realized that I could be more efficient with the aid of a computer and that my presentations of budgets or proposed employee pay raises could be improved. It wasn't until 1993 when the course irrigation was re-tubed and Toro Osmac was installed that I had my first office computer. It was a Magitronic 386, 35 MHz with a 30 MB hard drive. I upgraded the memory and hard drive over the next few years.

As I started to utilize the computer more, its limitations were glaringly apparent. It wasn't until 1997 that we replaced the computer in order to run the newer Osmac version

4.07. This was a 233MHz with a 2.4 GB hard drive and 24X CD purchased through Toro. This computer now resides in the assistant superintendents office where he can control the irrigation, track employee hours and log pump meter readings, etc. My assistant has his own Internet access with his own e-mail and, should the mechanic need to access the Internet, he does so on that unit.

I recently purchased a new computer for my office, a Compaq Presario 1.1 GHz with 25 GB hard drive, 128 MB RAM, rewritable CD drive, DVD drive and floppy. My printer is the Hewlett Packard PSC 500 — a flatbed scanner, color copier and printer all in one.

## Software Applications

I originally started out using Microsoft Word and the Microsoft Works suite, then went to Word and Excel and now back to Works. I had a few problems moving files over to this new computer and associating data files with their new format. The only real problem I had is that Works does not import the graphs I had in Excel format; the data is available and I will now have to reproduce new graphs.

My e-mail files were all in Netscape Communicator and now I am using Microsoft Outlook. The email address book can be imported but I found that I had to re-enter all the addresses in some form or other. I am not sure if I will continue to use Outlook or not. Other software includes Adobe Photo Deluxe for my digital camera. I will probably go back to Microsoft Office 2000, as I would like to start using Power Point for presentations and prefer constructing graphs in Excel.

## Management Tool

I use my computer for internal and external business communications via e-mail. It certainly saves time and money compared to mailing or faxing memos and letters. The access to the Internet enables me to keep abreast of industry news and to find articles or information I need. By visiting the GCSAA web site, I can access past *Golf Course Management* articles in the archives which can then be presented to my staff and membership. This is far easier than

looking through each December's directory issue and then the finding the respective issue and photocopying the article.

In my capacity as general manager, I often have to write to individual members and the general membership addressing concerns, giving updates and informing them of new rate structures etc. All these are saved to file for future reference.

I use spreadsheets for a number of tasks. I have made up a worksheet that determines the correct amount of fertilizer per green based on percentage of nitrogen and rate that I wish to apply. This sheet is then given to the applicators who can track the amount needed per green, so they can adjust settings or technique as needed to get the correct amount applied.

My budget, which consists of all departments with revenues and expenses, is on a spreadsheet for simplicity and presentation. I track all rounds played by category and this is displayed in a number of graphs that show number of rounds played per month for the past five years to show comparisons. The same is done for monthly revenues. It is a lot easier to show the information graphically than to simply list rows of numbers.

The Great Outdoors selects an employee of the month, which is voted on by the crew and alternates between the clubhouse staff and the course maintenance staff. The individual receives a \$50 gift certificate and his photo is displayed in the pro shop. I take the employee's photo with a digital camera, download it to the computer and print it as needed.

The digital camera is really helpful in the development of our website. I take photos around the course and clubhouse and email them to the Webmaster for posting on our site. Recently I was faced with a heavy disease problem on my emerging bermudagrass during transition. I was able to take photos and email them to the staff at Syngenta and to the Pace Laboratories in California. The photos along with a disease sample aided in the diagnosis.

I probably spend more time now on the computer than I did before. It does save time putting presentations together and it is a lot easier to edit. The key is having the ability to do much more than just keeping records by using a computer as a management tool.

By Geoff Coggan, CGCS, MG

## Computer Mice... and Men

Computers entered my golf course maintenance life when I returned to Disney World to grow in the Osprey Ridge GC at the Bonnet Creek Club. While I had been banging away on a Macintosh Performa at home to work on the *Florida Green*, I had not used a computer at work until the Rainbird Maxi V controller was installed with the new irrigation system.

The first software with the Maxi system responded to MS DOS operating system which was awkward and cumbersome by today's standards of point and click, but we managed to bungle through until the new software made it easier to navigate to the various screens for reports, schedule changes, and system monitoring.

Soon the secretary's computer was installed and she began keeping personnel time records and submitting them to payroll and writing various memos for us to communicate with the chain of command and other departments within the golf division. When I upgraded my home computer, I brought my old Mac into work to use for work schedules and my own memo writing.

There was company email available on the secretary's computer so we could send and read interoffice memos. The best feature that took awhile to link up was when we could log into the Tee Sheet and check tee times and group reservations so we could plan our maintenance practices to minimize guest inconvenience.

When the new head superintendent, Gary Myers, took over, he wanted us to create a monthly maintenance calendar using Calendar Creator software. We would update it weekly for our staff meetings. By having a printout from each of us, he could track our fertilizer and pesticide applications to see what was going on each course at a glance. By posting the calendar in the office it also gave the crew a heads-up on what was happening and helped the crew foremen assign jobs to work around special situations.

I also developed a Daily Assignment Form which the foremen used to create the daily work sheets, which they still filled out by hand at the end of the day.

We were in the process of selecting software for the shops to track equipment repair,

labor and expenses, but that was still in its infancy when I retired. Our clerks and administrative staff used the computers for personnel and purchase requisitions, but budget reconciliations were still done manually from printed out reports from the bean counters.

I haven't checked with my old colleagues out at the Mouse House lately, but I bet they all have their own desktop computers now and they have come pointing and clicking into the 21st century of business management.

It will be four years since I hung up my L.L. Bean duck boots and we were just beginning to scratch the surface of using computers in golf course maintenance. Today, even if the superintendent doesn't have a computerized irrigation system or a secretary with a desk top computer, there is bound to be one at the clubhouse that is generating memos and reports that cross his desk.

Computers will never replace the trained eye or the artful hand of a gifted turf manager, but they can provide a tool that is useful in manipulating and sharing information for communicating with owners, members and fellow superintendents.

*Joel Jackson, CGCS*

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To keep from creating a cup changing nightmare after aerification, fill the old cup hole with top-dressing mix. Photo by Darren Davis.

## It's In The Hole

Aerification... "A necessity, a customary cultural practice, a tool to improve putting greens."

Unfortunately, no matter what terms we use to define, defend or explain the process of aerification to golfers, it will most likely always fall on deaf ears. Aerification is, and will remain, an unpopular and often despised practice by the golfing public. What you may not know is that aerification can be equally as unpopular to the individual who has to change the hole placement on the day after the greens are aerified. If you have performed the task you know exactly what I mean!

The biggest problem that I have seen encountered by the crew member on "the morning after" is installing the new plug into the old hole that has been crushed or caved in by the aerification equipment. With the aerification process, core removal and topdressing, it is impossible to avoid crushing the void where the previous day's hole had been placed.

Leaving the old cup in, which would help stabilize the hole, is not usually the answer as the aerification tines would inevitably bang

into the metal or plastic hole-liner. There is, however, a very simple solution that you may have overlooked in your operation.

Once the cup has been removed in preparation for the aerification, the existing hole can be filled with soil. By filling the hole, the turf surrounding the void is held in place and the area does not collapse when a tire runs over it. As some of the soil mixture may remain in the hole the following day when a new plug is placed in the void, it would be prudent to fill the hole with a soil mixture compatible to your existing subsurface.

Simple, common sense you say. Yes. Maybe, but I guess having changed many a pin after aerification when the hole was not filled in, I know that I am not the only one out there facing this scenario.

Darren J. Davis  
Director of Golf Course  
Operations  
Olde Florida Golf Club



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