

# TWENTY YEARS *of* Traversing



Over the years, Traverse PC has found a niche with its non-CAD software, and it now celebrates 20 years in business. Oh, and they do surveying too.

▲ John Balcom (left) and Rob Ward enjoy the spoils of success as they ply the Pacific in their boat Quarter Share

**By Tom Gibson**

**W**hether you call it fate, good luck, or business savvy, John Balcom and Rob Ward crossed paths in the Pacific Northwest over 20 years ago and teamed to develop a successful new type of surveying software. Today, the co-owners of Traverse PC and Ward Northwest use their surveying experience in continuing to develop software. An interview with John Balcom reveals how they have made it work.

#### **How did you and Rob start Traverse PC?**

Both Rob and I started in the Oregon timber industry. I was teaching and doing research in the Forest Engineering Department at Oregon State University in Corvallis in the 1980s. We started developing software based on our research at OSU and giving it away to alumni if they would attend our annual alumni days. A few years and thousands of copies of various software programs later, I had a long list of alumni that could not find a good surveying program, so I wrote Traverse PC. Rob Ward was one of 12 alumni from all over the

United States who helped define what TPC should do and offered to market it out of his private surveying office in Florence, just 80 miles from Corvallis. So in 1987, we incorporated Traverse PC. By 1989, TPC had outgrown our initial arrangement, so I moved to Florence. Rob had just started Ward Northwest in 1985, so we basically started from the ground up with both companies. We have been surveying and developing software ever since.

#### **What other outside influences affected your startup?**

Besides Oregon State University, Corvallis is home to CH2MHill and Hewlett Packard. The environment there is great for startup companies. I had many contacts from these organizations that reviewed my ideas for Traverse PC and encouraged me to jump in and give it a try.

I have to give greater credit, however, to an unexpected source, VisiCalc. Dan Bricklin and Bob Frankston, neither of whom I have ever met, developed something called the spreadsheet in 1979, and it changed the way we all looked at problem-solving forever.

VisiCalc gave us a blank slate we could work on in any free-form way that fit the problem. It was like a box full of useful tools without prescribing how to get the job done. All the other software at the time, including surveying programs like Lietz, C&G, Carlson, and Pacsoft, prompted the user for information, usually one piece at a time, then did the computations behind the scenes and spit out the answer. Of course, you could “batch” the job, but that didn’t change the way the software worked.

Traverse PC had the benefit of starting from scratch with the spreadsheet in mind. It didn’t have to focus on walking you step by step through a solution in a limited or prescribed way. It provided you with a set of tools you could use any way you choose to tackle a surveying project. In 20 years, we have not deviated from that philosophy—it was a great choice.

#### **Describe your surveying activities.**

Ward Northwest surveys and develops land. We average 200 surveys a year and pretty much do anything that walks in the door. We still consider ourselves a small survey firm, though we have all the toys like GPS and robotics in addition to total stations that make us very productive. Everyone gets out in the field surveying, right down to Tracy at the front desk.

#### **Do you run the software business out of your surveying office? How is that set up and staffed?**

Survey and software share the same facilities and personnel. So when surveying gets crazy, we’re out pounding hubs, and when you call for technical support, you get someone who knows how to double an angle. We have found a synergy that is good for both companies.

We generally have eight to ten full-time employees and hire part-time help as needed for both surveying and software. Although we develop TPC ourselves, being in the Northwest has allowed us to draw talent from companies like Intel and Microsoft.

#### **How does your surveying help in developing software?**

They are both focused on the same thing—making surveying fun and profitable. We enjoy surveying and developing software, and we have been successful at both. Remember the old joke: What do you call working two jobs if you’re poor? Moonlighting! What do you call working two jobs if you’re rich? Being diversified! Your idea of doing two things at once is defined by how successful you are. We love doing both.

The surveying side of our business keeps us focused on what is practical. You can choose to put 100 new things in every software release or you can focus on ten that make the most sense. The survey side helps us do that.

The software side provides opportunity for us in surveying because we have access to the best technology and

practices available in the industry. I remember when Traverse PC introduced raster images (background pictures) into drawings. All of a sudden, the survey side was including them in the maps we handed our clients so they could see their property boundaries right on the photo. It was great.

#### **How did the No CAD Zone come about?**

We introduced the No CAD Zone thinking we would make it the marketing focus for a year or two. It wasn’t a new direction for TPC. It was just a concise way to explain who we were. We had no idea it would resonate so strongly within the surveying community, but it has.



▲ Everyone on the company’s staff gets in on the surveying, including business manager Eric Tanikawa, shown staking out a new Dollar Store north of Florence, Oregon

The evolution of the No CAD Zone really has three parts. First, in 1997, when we decided to port TPC from DOS to Windows, we had to decide whether or not to build it on one of the CAD engines available at the time. We created a list of all the things we loved about using CAD in our own surveying business and all the things we hated about it. The “hate” list was so much longer than the “love” list that it made our decision not to develop on top of CAD very easy.

Second, in 2001, we introduced the No CAD Zone at the same time Windows came of age. Microsoft introduced .NET technology, which finally delivered on many of the original promises of Windows for device independence, WYSIWYG, etc. Windows XP was a perfect fit for TPC at the time.

Third, in 2005, a major CAD vendor started forcing users to update when they said to or forfeit the ability to update at all. This has been a boon for TPC, as surveyors have left that company en masse. In response, we joined the Open Alliance, a consortium of companies dedicated to providing direct support for proprietary CAD file formats like DWG and DGN, so our users could integrate seamlessly with CAD without using CAD.

### How have you seen surveying software change over the last 20 years?

We've seen two trends that have not been helpful and one that has. First, it really isn't hard to write a "me too" program that does what everyone else already does and claim to do it better. It is hard, however, to convince everyone your mousetrap is better, as many of these companies found out before they vanished. This trend was not helpful.

Second, we've seen companies rush to develop features, product lines, and endless modules. The problem is that as a profession, we make our living surveying, not running computers. So packing in new features and modules we don't know how to use and don't need doesn't help us. This trend is not helpful either.

Third, some software has balanced added horsepower with ease of use. Traverse PC has been successful by designing software tools that are well designed and highly integrated. The



▲ Licensed surveyor Ron Rice checks an Oregon bearing tree

right tool implemented in the right way can leverage with existing tools to open up whole new areas of opportunity. Our Report View is a good example of this. With just this one additional view, which uses the familiar built-in Windows word processor, you can add any program data to a report and edit, spell check, copy and paste, print, save as a Word document or PDF file, and email it. That's a helpful trend.

### Any other new developments in your software? Any big plans for the future?

With the recent additions of Least Squares Network Analysis and Slope Analysis, Traverse PC desktop is now a complete package. You don't need any other software for your surveying.

Looking forward, we are excited about two opportunities in particular. The first is data organization. Surveys aren't just a few control

points and a hundred topo shots anymore. Thanks in part to the ease of data collection with GPS and robotics, surveys involve more and more data. Plus, you have orthophotos, GPS control points, Web-based survey records, drawings, and the list goes on. Traverse PC users have always appreciated the way TPC organizes data. Our next versions will expand on this to help you easily track every part of your survey.

The second is in the surveying-GIS interface. Look at Google Earth and think GIS for the masses. Or just think about your own country survey office.

### Where do your surveys go after they are recorded?

Into GIS databases. The problem, however, is what to do about closures and errors. Traverse PC just introduced a new tool called Plat Checking. Now you can adjust your surveys to match the precision you use in your plats and legal descriptions. When you send the data off to the GIS folks, it's a perfect match.

### Are you doing anything special to celebrate your anniversary?

We are running all of our best special offers in one year. In February, we offered two copies for the price of one. In June, we offered a free edition upgrade worth \$600. In July, we started our "20 Years, 20% Off" promotion. We also celebrate every July 4th with a big barbecue and fireworks—this year, it was a little bigger.

**TOM GIBSON** is editor of this magazine.



▲ The company's Christmas dinner took place at King Estate winery