



Iain MacMillan is editor of Ski Canada.

# Get in the picture

**G**ERHARD BECKMANN ADMITS HIS PERSONAL SKIING shortcomings upfront. "I was never a terribly confident or competent alpine skier," says the researcher and former university professor from Altamont, N.Y. "In fact, I've pretty much stopped altogether. But I have three sons and they're all excellent racers—I was just looking at ways to help coach them." Well, he has succeeded wildly.

From the heart of a parent and the brain of a doctoral engineer, Beckmann has developed a computer software program that will revolutionize a common tool like sport video analysis. Thankfully, his sons are keen skiers—so our sport gets to benefit first.

With a video library of the boys in gates, the former university professor started thinking a couple of years ago about ways he and his sons could better analyse their taped practices and races—as well as those of teammates and competitors who were faster or slower down the course. The end result is a teenager leaning into his computer screen at home, examining up to six athletes laid out side by side racing down the same course. The run through the gates is synchronized, then it can be intricately dissected to show all sorts of good and bad techniques. Where a racer has lost valuable time or, indeed, the race, can be pinpointed with this new level of visual learning. And it's about as easy to use as a VCR. Beckmann purposely wrote the interface to look like a VCR, with similar "controls" on the screen like FF, REV, Freeze, Slow Motion, etc.

They can see how close they took a particular gate vs. the competition, or compare the line they've taken down the course with others. The computer brings everyone together even if one time down was 60 seconds and the pace-setter's was 30.

The skier and/or coach can leave practice or the race with a CD. Once the footage is videotaped (not necessarily all done by a shivering parent—automatic remote cameras are possible) and digitized into a non-linear format (a process that sounds relatively simple even for an illiterate computer user like me), the package becomes fully portable. Every skier through the gates could potentially leave with a \$2 CD and take home a truly educational video game.

An affordable price tag for clubs of US\$495 hangs from the appropriately named The Competing Edge (the Canadian Alpine Ski Team was looking at a \$10,000 Swiss product before being introduced to Beckmann). Software to run the program on the individual athlete's home computer is \$200. And, if needed, to convert a standard video camera into digital camera is about \$100.

Of course, Beckmann is aware of concerns about "over-coaching" but I tend to agree with him that his product may ultimately simplify the coaching experience and help cut down on all the unnecessary noise that is inevitable with the communication between coach and athlete. "They need to be directed, not overcoached," says Mike Weiss, a 32-year ski coaching veteran and strong supporter of The Competing Edge. "An invaluable by-product is how much easier it is for the athlete to visualize." Anyone involved in sport knows the importance of visualization.

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Anecdotal reviews so far have been excellent, ranging from national team coaches in Canada and the U.S. to former Olympic, World Cup and other championship winners, as well as ski manufacturers whose hearts are in the gates. Beyond the gates, the tool's applications sound fantastic. General ski instruction—or for that matter, virtually any sport that currently uses video analysis can benefit from the technology.

Beckmann found me at the Toronto Ski Show in October. But with the speed of computer technology today, I wonder how many racers will be cruising the show aisles next year, CD in hand, asking some of the racing greats who ultimately hit events like this to ask for advice on their technique.

A head start on The Competing Edge: 518/861-0883 or [www.competingedge.com](http://www.competingedge.com). ❄️