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TRACKMAN PERFORMANCE STUDIO

REVOLUTIONARY GOLF TEACHING AND PERFORMANCE TOOL RELEASED

At this year's PGA Merchandise Show in Orlando, TrackMan launched its much anticipated TrackMan Performance Studio. The new software was welcomed with rave reviews.

Martin Hall, Director of Instruction at Ibis Golf and Country Club believes that TrackMan will accelerate the level of golf around the world. Saying, "I bet that there is some kid in Korea, Alabama or Croyden, England, or some kid somewhere, who is growing up with a TrackMan and he's understanding path, face, launch angle and starting direction and he's 12 years old now, and by the time he is 22, he's going to be the best ball striker we have ever seen. I think that is what TrackMan is going to do for the game of golf."

TWO YEARS PLUS IN THE MAKING

Taking over two years to develop, the TrackMan Performance Studio was created in direct response to customer feedback and market demand, explains TrackMan co-founder and CTO, Fredrik Tuxen.

"Since our first product release, we have worked closely with our customers, partners and the industry. During this time, we have seen TrackMan data play a more and more important role in teaching and player development.

The TrackMan Performance Studio was inspired by our many conversations with the world's greatest coaches and players. Their input was essential in helping us to create an intuitive, state of the art teaching solution, specifically targeted to their needs.



Reiterating the point, Tuxen says the modest goal for the Performance Studio is, "to be indispensable for any golf lesson."

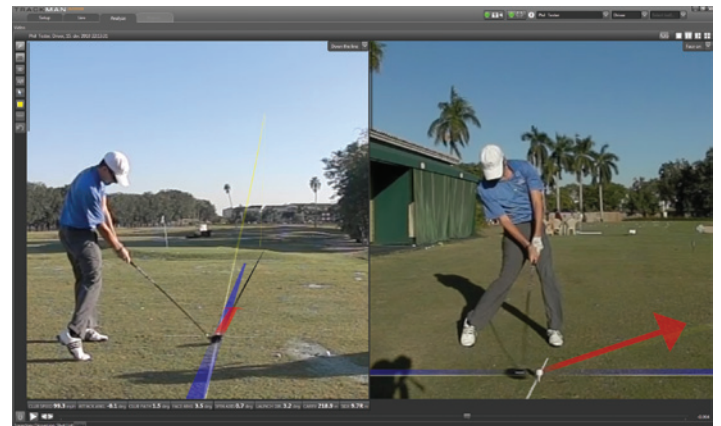
– Fredrik Tuxen, CTO TrackMan

VIDEO AND TRACKMAN DATA MERGED

Video has long been the standard for teaching in golf, enabling coaches to review and evaluate movements that are too fast for the eye to see. To further quote Martin Hall, "TrackMan on the other hand, shows what video cannot see."

The TrackMan Performance Studio synchronizes video with TrackMan swing and shot data in real-time. Not just placing the video along side of TrackMan data on a computer screen, but literally, calibrating and slaving the video to a TrackMan.

The ground-breaking feature enables the TrackMan Performance Studio to create spatially coherent 3D imaging of the ball flight, club path, face angle and more, layered on the video and independent of the camera's position. With all swing & shot playback imaging, including player alignment and ball position, illustrated in relation to the target line and fully integrated with TrackMan data.



Automatic on-video layered 3D TrackMan club and ball data

This unique combination is made possible by patented TrackMan technology that uses an internal camera built into the TrackMan hardware and is calibrated to the radar for target alignment.

In the words of Tuxen, "benefits that make the Performance Studio and the insight and information gained by it worth more than just the sum of its parts. In this case, "2 + 2 = 5 or 6," says Tuxen: "because you are not only getting video and TrackMan data, but the two synchronized and linked together to unlock insight never before available."

PORTABLE, EASY SET UP

The completely portable TrackMan Performance Studio uses a TrackMan Pro radar unit, Casio EX-F1 or standard DV camera(s) and a laptop to run the Performance Studio software. It can be used indoors or out and because it is a TrackMan Pro, it takes just two minutes to calibrate and set-up, even in a green grass environment.

The video camera or cameras, (the Performance Studio supports up to six cameras) are in one simple step calibrated and slaved to the TrackMan unit. One single step that makes the Performance Studio so totally unique.

By calibrating the video to the TrackMan unit, the target line is as aforementioned, embedded in the video, no matter what angle you shoot from. This enables the Performance Studio to illustrate in the video, the ball flight, club path, face angle and more, plus player alignment and ball position, based on the target line and not from the camera's vantage point.

An innovation that also lets you compare player swings, even from different time periods and film angles – shot by shot – anywhere, anytime. An advancement that lets you check proper player alignment in relation to the target line and ball flight in the video and again, independent of the camera filming angle(s).

And because TrackMan Performance Studio slaves the camera to the TrackMan (and computer), it triggers fully automated, hands free, video capture, with every shot and video file instantly cropped and saved to your workplace.

TOTAL SWING ANALYSIS

With the TrackMan Performance Studio, TrackMan data and video now complement each other to give a total picture of player performance in one straightforward, easy to use interface: A scalable user-friendly interface that makes it simple to choose between multiple screens, views, video, and data to tailor the workplace to your needs.

Working live with the Performance Studio or later, when reviewing sessions in Analyze mode, you can customize the information and screens you see. Select from multiple screens: mini screens that feature shot dispersion, trajectory or more, or highlight particular TrackMan data or just watch video on the main screen with TrackMan data alongside, underneath or not there at all. You choose what you need.

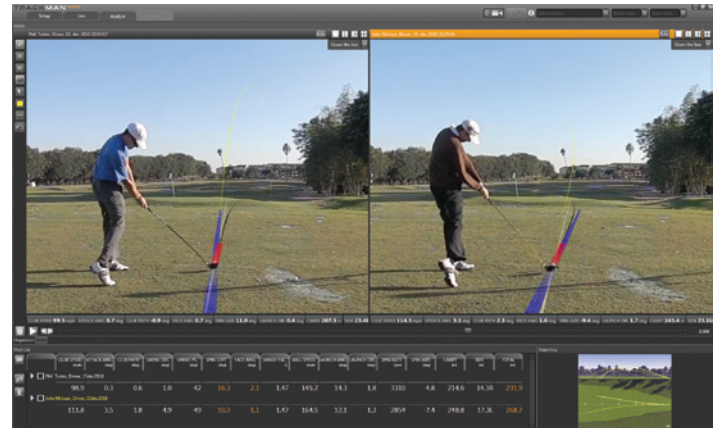
Later, when it comes to reviewing the session and data numbers, instructors can take advantage of the TrackMan Performance Studio's full suite of video swing analysis tools. Use drawing tools to highlight swing plane, body positions and more, as well as slow motion, step-by-step playback, video import, compare mode, before/after, and student to model playback, for studying and breaking down the swing.

All the benefits of video swing analysis but importantly, supported, calibrated, and now, confirmed by TrackMan data. With every X, Y and Z coordinate in the swing, clubface and ball flight measured by TrackMan and illustrated on video. Client sessions, data, and videos are all managed in the Performance Studio workplace as well. Its user-friendly interface enables you to easily import or export video and data to review, send and share.

THE DEFINITIVE DATA AND VISUAL REPORT

The TrackMan Performance Studio turns your laptop into a live teaching and player performance studio, delivering the definitive data and visual report on the golfer.

"By merging TrackMan data and video, we have made it easy for coaches currently using only video to also take advantage of the insight our data provides. Similarly, for golfers presently using TrackMan and video separately, they can now effortlessly integrate the two media," says Tuxen.



Compare analysis with calibrated camera positions

He concludes, "Video has always been great for seeing the swing: Enabling you, for the most part, to see what caused the data results. Likewise, TrackMan data shows us what the video cannot see. We might think the ball flies in a certain direction because of a swing fault we saw in the video, but TrackMan data tells us precisely why the ball goes where it goes.

With the TrackMan Performance Studio, now there is no question as to what is going on in the swing. TrackMan Performance Studio gives you video backed by, and calibrated to, TrackMan data."

HOW TO GET TRACKMAN PERFORMANCE STUDIO

TrackMan Performance Studio software is available as a free software upgrade for current TrackMan software subscribers. The TrackMan Performance Studio is installed in all new TrackMan Pro indoor and outdoor radar units as well.

A non-video version of the TrackMan Performance Studio is available at a reduced price.

DAVID HOWELL

THE IMPORTANCE OF CENTER IMPACT

TrackMan customer David Howell had his system updated with TrackMan Performance Studio during the BMW Championship at Wentworth. While TrackMan inventor Fredrik Tuxen introduced David to the ground breaking TPS software, he also opened David's eyes to the importance of center impact... in particular with the driver.



Figure 1. Face-to-Path closed with slight heel impact, resulting in a fade

Figure 1. One of the swings from TrackMan Performance Studio that initiated the discussion is shown. The club path is slightly in-to-out (0.5 deg.) with a 1.8 deg. closed face angle relative to the path. Normally this would produce a small draw, but instead a slight fade resulted. The explanation lies in the fact that the ball, as can barely be seen on video is impacted a little towards the heel, resulting in a gear effect tilting the spin axis towards a fade shot – in this case actually more than compensating for the closed Face-to-Path. After the impact position on the club face was brought up during the testing, David marked every single ball with a sharpie to verify the impact position.

Figure 2. Shows a mirrored situation of figure 1. This shot reveals a 1.4 deg. open Face-to-Path, but because of the slight toe impact (pay attention to the head position at impact relative to



Figure 2. Face-to-Path open with slight toe impact, resulting in a draw

the aiming stick which remained fixed relative to the ball position throughout the testing), the horizontal gear effect overrides the open face angle creating a slight draw.

The impact position on the club face is not only important because of its influence on the spin axis through the gear effect, but is also important when studying the Face-to-Path data. Due to the bulge of the driver, if the ball is impacted ½ inch (12.7 mm) towards the heel, the face angle will at this point on the club face be 2 deg. closed relative to the center of the club face. Likewise, if the ball is impacted ½ inch towards the toe, the face angle at this point will be 2 deg. open relative to the center of the club face. This rule-of-thumb actually works for all drivers on the market.

The above raises an important question when analyzing the TrackMan club data.

Is a 2 deg. closed Face-to-Path due to a center hit with a truly closed face, or is it a square club delivery, but heel impact?

When David continued hitting about 30 drives each being checked for impact position and club delivery data, the answer in his case was slowly revealed. David's club path was very consistent within +/-1 deg., whereas the Face-to-Path had twice as much variation. The very interesting thing was that the variation of the Face-to-Path closely followed the impact position on the club face – meaning that whenever a closed Face-to-Path number occurred, the impact on the club was slightly towards the heel and vice versa for open Face-to-Path numbers. Or as David summarized his learnings “the Face-to-Path variation I am getting for my driver has much more to do with impact position on the club face rather than the way I swing the club”.

PRACTICE APPLICATION LAUNCHED

– ESTABLISH YOUR TRACKMAN LEVEL

In the fall of 2010, TrackMan introduced TrackMan Range, a stand-alone golf gaming and game improvement station for indoor and outdoor golf facilities.

Since its launch, some 20,000 golfers have signed up and are now enjoying the benefits and fun of practicing with TrackMan Range, with over 30 golf facilities around the world leasing one or more units.

Participating golf facilities have reported a tremendous increase in their client engagement and time spent on the range, with range ball sales jumping as well.

TEST, TRACK AND TARGET YOUR GAME

If you are unfamiliar with TrackMan Range (see Oct 2010 newsletter), it features four different game improvement applications for golfers to use on their own, at their own pace.

Golfers can choose to play Games, Compare Clubs, Shot Analysis and now, our newest app, Practice. Each application features its own unique benefits designed to focus and improve training while making time spent on the range more effective, fun and addictive for the golfer.

With our newly launched TrackMan Range application, Practice, we have borrowed the concept from our player benchmarking solution, TrackMan Combine.

“ *The Practice application provides golfers with tremendous insight on their overall shot making ability, which develops confidence in their skill and translates to success on the golf course.*

– Matt Frelich, PGA Professional
TrackMan Vice-President of Sales & Business Development

In a way similar to TrackMan Combine, Practice assesses and benchmarks a golfer's shot-making skills from various distances. Like Combine, Practice gives players a score or level in this case, to use as a yardstick in measuring their own improvement and in comparisons against other players.



TrackMan "Level" Screen

Since its introduction, TrackMan Combine has quickly become the tool of choice for playing pros, teachers, and coaches when benchmarking shot making skills. The goal for the new Practice application is for it to provide the same powerful level of performance insight and benchmarking benefits to the range customer.

HOW IT WORKS

In the Practice application, golfers hit at targets and are evaluated by their accuracy.

Players start by choosing one of the five TrackMan Range targets. TrackMan Range/Practice app then records, analyzes and scores every shot the golfers hit. Players are given a performance level for each target based on their accuracy, just like a Combine score.

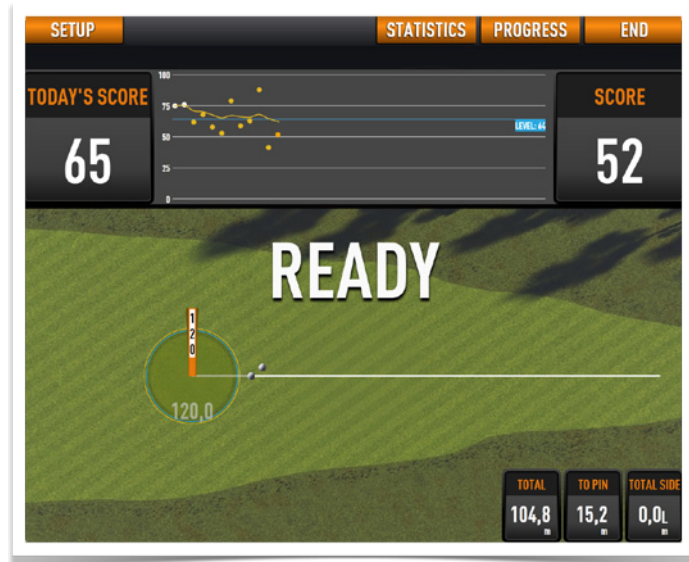
Players are free to go back and forth between any of the targets to vary their distances and to try and improve their scores.

Apart from hitting at TrackMan Range's five range targets golfers can then take out the driver, with driving scores based on distance plus accuracy, giving bomb and gougers no real advantage.

Players are given an overall performance score "TrackMan Level" based on their scores for each target. Players can then follow their TrackMan Level all season long using it to benchmark improvement.

Practice is terrific for improving player performance because it keeps golfers focused on hitting at targets: considered by golf's finest players as essential to game improvement.

Practice also gives golfers in depth and practical information on their game and shot making ability, because, as in all TrackMan Range applications, players get reliable and accurate TrackMan ball flight data on every shot they hit.



TrackMan "Hit" Screen

With Practice, players can keep track of their performance throughout the entire season because Practice keeps a running tab on their training.

Practice is designed to let players know what shots to work on and perhaps what clubs need to be added or subtracted from the bag.

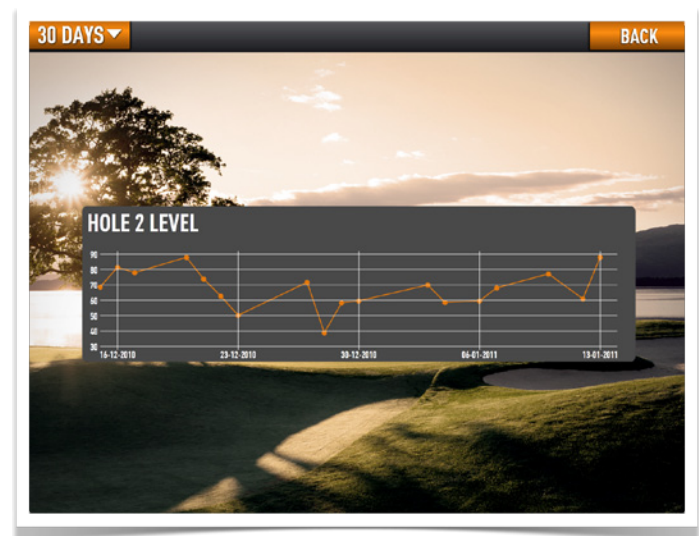
To quote TrackMan Range regular and PGA TOUR multiple winner, Barry Lane: "It (TrackMan Range) gives me the confidence to stick with and believe in what I can do."

The Practice application's many benefits has quickly made it a player favorite in the first few weeks since its launch.

KEEPING TRACK

Players are able to access their complete Practice sessions on-line at mytrackman.com just as they presently access sessions from TrackMan Range's three other game improvement applications.

The power to go back and review sessions when a player wants has helped make TrackMan Range and it's host site, mytrackman.com, very engaging. Golfers spend an average of 14½ minutes on the mytrackman.com website every time they logon to review sessions, statistics and match results!



TrackMan "Progress" Screen

YOUR SCORES ANYWHERE YOU GO

Development plans also call for Practice and all TrackMan Range applications to be available shortly via iPhone and android platforms, which will enable players to review training sessions anywhere, anytime.

CAREER YEAR FOR TRACKMAN OWNERS

GRAEME MCDOWELL AND MARTIN KAYMER

“In my 24 years as a member of The European Tour, never, ever have we had the success we have had this year. We have completely dominated the world of golf in 2010. It is amazing the quality we have now and it is not going to stop here,” European Tour legend, Colin Montgomerie.



Martin Kaymer, 2010 PGA Champion



Graeme McDowell, 2010 US OPEN Champion

2010 was truly an amazing year for European Tour players. The tour boasted the British Open winner (South Africa's Louis Oosthuizen), the former and year ending top player in the world (Lee Westwood and Germany's Martin Kaymer), US Open Champion (Northern Ireland's Graeme McDowell) and PGA Championship winner (once again, Martin Kaymer).

Not coincidentally, the last two players named have a few other facts in common. Both posted major career breakthroughs in 2010 in terms of earnings and rankings. Both shared the “European Tour Golfer of the Year” award and importantly, both are TrackMan owners.

“It's not surprising to see Martin (Kaymer) and Graeme McDowell so successful. They work extremely hard on their game and spend a lot of time fine tuning their shot making” says TrackMan CEO, Klaus Eldrup-Jørgensen, who has worked with both players on TrackMan.

See TrackMan Videos:
www.trackman.dk

He continues, “Using TrackMan for practice enables golfers to really get to know their game.

A consistent comment we get from players and coaches is TrackMan's ability to make a major difference to their game,” says Eldrup-Jørgensen.

“TrackMan helps us eliminate the variables (in our game). It lets you learn to control what you can control. Knowing your precise distance for example, allows you to check that off your list.”

From TrackMan players to coaches, the theme of getting to know your game remains a constant. Because TrackMan provides so much precise information about their game, it develops shot-making confidence on the practice range, which translates to the course. As with any sport, confidence and attitude are more often than not the intangibles that separate the top players from the pack.

Case in point, European Tour player and TrackMan user, Barry Lane saying, “TrackMan has given me the confidence to stick with and believe in what I can do.”

For both McDowell and Kaymer, the improvement in their games is evident. Both have knocked shots off their scoring averages reflected in their earnings and winning, and both are playing with the utmost in confidence. In 2010, Graeme McDowell took it upon himself to slay any and all of the golf world's top dragons: clinching the Ryder Cup for Europe, winning the aforementioned US Open & Player of the Year honors, and ending 2010 by knocking the wind out of Tiger Woods at the Chevron World Challenge.

“TrackMan has helped us to improve what really matters: tangible numbers, no guesswork, improving your awareness,” says Stanford University Golf Coach, Conrad Ray, who uses TrackMan extensively in his program.

– Conrad Ray

During the first half of 2011, Kaymer topped McDowell by claiming the aforementioned, number one ranking in golf.

Both players use TrackMan for practice and tweaking equipment. While McDowell remains very much a “feel” player, Kaymer gets more involved with the data and technique. Both however, have taken away the same intangible from their time spent on TrackMan: Confidence.

In McDowell's words, “What that (TrackMan) tells me, is what feels square is square. It (TrackMan data) means I have a pretty good relationship between what I feel I'm doing and what the club head is doing. TrackMan backs up the feeling.”

MIKE SMALL INTERVIEW

UNIVERSITY OF ILLINOIS MEN'S GOLF COACH

Mike Small wasn't very familiar with TrackMan. But when his friend Conrad Ray, the Director of Men's Golf at Stanford University, sang its praises, Small decided to get one for his University of Illinois Men's Golf program. That decision is one of many that have proved to be great choices by Small, as he has built the Illini golf program up to heights it had never seen. Oh, and it did not hurt Small's golf game either, as he won his record-tying third PGA Professional National Championship in 2010.



TrackMan user Mike Small

"Every part of TrackMan is great," Small says. "We were one of the first collegiate programs to get one and I have no doubt that it has been worth it for our team."

A key hallmark of Small's program is distance control. With TrackMan, the Illini golfers have a great tool to track that statistic.

“ *When we play, or when we practice, distance control is always a focus. That is the first and foremost reason for us getting a TrackMan. The biggest advantage it gives us with distance control is accurate feedback.*

– Mike Small

Another aspect of TrackMan that Small loves is the different gaming applications. All athletes are competitive at even the most basic of levels. The applications give collegiate golfers a way to compete against each other, also during cold Illinois winters, which is great for the program.



**UNIVERSITY
OF ILLINOIS**

"The gaming creates an excitement and interest for the kids in practice," Small said. "It keeps their attention and gives them beneficial, effective practice."

From an instruction standpoint, Small believes TrackMan data provides invaluable insight that video simply cannot show.

"Video can't always illustrate the issues that a player needs to correct. But with TrackMan, he can see the numbers and see what has changed."

Another feature of TrackMan that Small finds beneficial is the Driver Fitting application.

"The Driver Fitting is great for us," Small said. "To find the right driver is so important. And now, if companies want to come in and bring some equipment, we can test that ourselves. It is a great asset for us."

Since the Illini added TrackMan at the beginning of 2008, the squad has won 18 team titles, including back-to-back Big Ten Championships. In addition, Illinois junior Scott Langley won the NCAA individual championship in 2010 and followed that up by finishing tied for 16th at the US Open at Pebble Beach.

"We've been fortunate to have great support for our program," said Small. "We have great facilities with tools like TrackMan and that helps out immensely. By getting the facilities and competing so well, it gives the kids a sense that the opportunity to get better is available here. All college players want to improve. As a coach, I owe it to the players and recruits to do everything I can to help them get better."

While Small's coaching acumen is well-documented, his playing career is equally impressive. In 2010 alone, Small had a season that many players could only dream of. He captured the PGA Professional National Championship at the Pete Dye Course at French Lick Resort, his second title in a row in the event and the record-tying third of his career. That qualified him for the PGA Championship, his seventh time in that event and the 10th professional major of his career. He also won the Illinois PGA title for the ninth time. His eighth-straight victory in that event came with an astounding 11-stroke victory at Olympia Fields.

As if those achievements weren't enough, Small also has four Illinois Open titles to his credit, and qualified for the PGA Tour in 1998, where he had a season-best finish of ninth at the Bell Canadian Open. Even for a gifted golfer who has seen success throughout his career, Small was able to improve his game using TrackMan.

"I've learned that I need to work on my swing plane," Small said. "I need something to tell me what I'm doing and that's where TrackMan comes in."

Small explained that, on video, his swing looks steep or that he's coming outside/in, yet he has a positive swing plane, which doesn't seem to make sense.

"My swing looks better on video than it actually is. I've always had a steep attack angle, and I've always tried to correct it. I've learned that I'm steeper than most guys," Small said. "But since that is the case, I need to have a negative swing plane. TrackMan has helped me accept who I am as a golfer and to correct my flaws in a much simpler way."

Small's golf skills are evident in his results in national tournaments. But it is his skills as the leader of his Alma Maters' golf program that have set him apart. Not surprisingly, he gives the credit to his players.

"We've been fortunate to have some great, quality players come through here," Small said. "Resources and tools are fantastic, but they are certainly no guarantee. But what they can do for us is set up that environment here at the University of Illinois, and that gets great players wanting to come here."

BRIAN MANZELLA HELPS DAVID TOMS BACK TO THE WINNER'S CIRCLE

Brian Manzella has been a TrackMan owner and supporter since 2009. Manzella has worked with golfers of all levels and has carried his “little orange friend” with him along the way. Manzella’s most recent success story comes from his work with PGA TOUR member David Toms.



TrackMan user David Toms

Manzella first worked with Toms in 1988. The two have worked together occasionally since then with the frequency increasing over the last few years. Starting earlier this year the pair began to work together much more regularly. In mid-February Manzella drove up to Baton Rouge from his home in New Orleans to work with Toms at the University Club, home to another TrackMan customer, the LSU Tigers. Manzella recalled, “David’s swing is like a classic Cadillac. The thing runs great, but it just needs a tune-up every now and then. I wasn’t trying to reinvent the wheel with David. He’s been swinging the same way for many years. I wasn’t going to change his motion.” However, Manzella was interested in knowing what Toms’ TrackMan numbers were, so that he could determine what adjustments needed to be made. Manzella said, “For David, the main thing that I focused on was his angle of attack and zeroing out his path. If I can get his angle of attack close to PGA TOUR average with his irons and his club path to zero, he will figure out the rest.” That weekend Toms went on to finish tied for 5th at the Mayacoba Golf Classic.

Their next meeting took place on the range at the Transitions Event in Tampa, FL. Manzella brought his TrackMan, or as he likes to refer to it “my little orange friend”, to the PGA TOUR event for their time together. “Unless the weather doesn’t permit, I have TrackMan set up for every one of my lessons. That doesn’t mean I’m dissecting the data with the student for every single shot, but I do have it there to keep me honest and monitor what is going on,” Manzella stated. A lesson with a past major champion is no different than a lesson at his home club of English Turn with regards to having TrackMan by his side.

“I think we are just starting to enter the TrackMan Era. If we look at the last twenty-five years or so as the Video Era, then I think the next however many years will be the TrackMan Era,” Manzella proclaimed. “The data TrackMan provides tells me what I need to focus on. If you take the seven numbers that look at the club head, one or maybe two of those numbers is going to be pretty far off if something is wrong with the ball flight. I look for those outliers and focus on that first.” When asked how his teaching has changed since getting his TrackMan, Manzella responded, “First, I would say that I am quicker to transition to a new swing thought for a student. Meaning, if I give a student a swing thought and it doesn’t change the TrackMan numbers for the better in a couple swings, then I will give them something else to visualize or try. Before, I might have thought that the student just needed more repetitions to own that motion. Now I look at it as that didn’t work so let’s try something different. Second, I would say that I don’t “over teach” anymore. I don’t try and get someone to over correct a swing fault and then work back to that middle area that I was hoping to get them to from the beginning. Now that I have the data to back up the ball flight I am trying to produce I just go straight for those numbers. There is no need to waste time and energy when you have the data to confirm whether the student is doing what you want them to do.”

After Manzella’s meeting with Toms at the Transitions Event, Toms went on to finish T37 that week and then T3 at the Arnold Palmer Invitational the very next week. Compared to two missed cuts and a T33 in the three tournaments at the beginning of the year, things were really starting to look up for Toms’ season. The two later spent some time together just prior to the Masters and then the week of the Zurich event in New Orleans.

Toms’ Angle of Attack with his driver has been another area of focus for the two and using Angle of Attack to optimize ball flight is something that Toms has bought into. “When I had David on TrackMan at one point last year his angle of attack would range from -1 to +1.5. Now his angle of attack will range from +2 to +4.5. His stock driver shot probably hovers around +2 to +2.5,” Manzella detailed. Toms is ranked number one this year in Total Distance Efficiency. This is a measurement on the PGA TOUR that looks at Total Distance relative to the golfer’s Club Speed. With an average driver club speed of 108 mph, Toms packs a powerful punch. Based on the data collected on TrackMan in 2011, no one gets more Total Distance out of their Club Speed than David Toms. To do this Toms has created optimal launch conditions not only for Carry Distance but also generates a Landing Angle that affords him a lot of roll as well.

Manzella and Toms' connection has proven to be a successful one in 2011. With Toms' win at Colonial, he has amassed over \$2.8 million and is ranked 5th in the FedExCup (points) standings. For further proof of just how successful they have been, the following table shows a before and after of two key ball striking statistics kept by the PGA TOUR and ShotLink.

PGA TOUR Shotlink Data	Prior to Mayacoba	Year-to-Date 2011
Driving Accuracy	12 th	3 th (73.5% of fairways hit)
Greens in Regulation	58 th	2 nd (71.9% of greens in regulation)
Proximity to Hole	65 th	6 nd (33'0" avg distance from hole)

TrackMan would like to congratulate Brian Manzella and all of his students on the success they have earned. Brian Manzella was named as one of GOLF Magazine's TOP 100 Golf Instructors in America. He is the owner of brianmanzella.com and has been a TrackMan customer for two years. Brian's home base is English Turn G&CC in New Orleans, LA. If you would like to contact Brian Manzella, he can be reached by email at: brianmanzella@mac.com

KEVIN SHIELDS AND NATHAN SMITH

INTERVIEW

It is a golfer's dream to walk a round at the fabled Augusta National Golf Club for The Masters. And last April, Pittsburgh native Nathan Smith was living out the dream, even getting to 2-under par through 12 holes and seeing his name on top of the leaderboard in the first round of golf's opening major.

Smith, who had qualified for The Masters by winning the United States Mid-Am Championship, then faded to a 2-over 74 in the first round and shot a 75 in round two to miss the cut. After returning home to Pittsburgh, Smith met with Kevin Shields, the Director of Instruction at Sewickley Heights Golf Club. Shields had worked with Smith before, and Shields had traveled to Augusta to watch Smith play. Shields noticed Smith had been overdrawing the ball, and he knew that they needed to correct it, so he had Smith work on the TrackMan. It was Smith's first time on TrackMan, and the results were immediately noticeable. Smith had another fantastic season and defeated Tim Hogarth, 7 and 5, at Long Island's Atlantic Golf Club to win his second-straight Mid-Am, the third time in his career he'd won that tournament.

Shields purchased a TrackMan in March 2009 after trying it out in Slidell, Louisiana, at Pinewood Country Club under the watchful eye of head professional James Leitz. He knew right away he'd made the right decision.

"TrackMan is so useful to me as an instructor. To actually measure what you can't see ... I couldn't see not getting one," Shields remarked. "I was fearful to go on teaching without a TrackMan."

“ I'm always looking for an edge... And TrackMan has given me one.

– Nathan Smith

In the case of Smith, a swing adjustment needed to be made. Smith tore his labrum in 2004. Shields felt he was in danger of blowing his shoulder out again. Shields knew he needed to find a way for Smith to take some stress off of the shoulder, while still retaining his trademark accuracy and distance control. Shields turned to TrackMan, and more specifically, to Smith's vertical swing plane.

"When Nathan was a junior, he had a lot of tugging to create lag or speed from his lead shoulder from the top," Shields explained. "He would tug and then sling it, which is common for juniors. I wanted him to take some heat off of the shoulder."



TrackMan user Nathan Smith

Shields noticed that when Smith tugged horizontally with the lead shoulder, the vertical swing plane number was very low. When he didn't tug, the numbers stayed up as he stayed in his swing more. As Shields explains it – "The hit wasn't as much of a glancing blow. He was able to turn it over without overcooking it."

When Smith had too much horizontal motion, that vertical swing plane number would go down. And as Smith likes to hit the ball right to left, he was struggling to get his ideal ball flight if he was tugging it. With the help of TrackMan, Shields convinced Smith that a change was needed. The instructor knew that the change had to result in quick improvements.

"We were only going to make the change if we saw a better ball flight," Shields said. "Nathan hits the ball so straight that, even in the short term, if the changes made his game worse, he would bail on it. He had won two Mid-Ams without the change, so any change would have to be an immediate upgrade."

Shields, quite a good player in his own right, has seen his own benefits from owning a TrackMan. The 2010 West Penn Open champion, he quickly discovered one way in which TrackMan could help his game.

“As a player, the biggest benefit of TrackMan is optimizing your driver conditions. I’ve gained 15 to 20 yards in the air off of the tee without putting on one-mile per hour of club head speed,” Shields said. “Once you get your benchmark swing, you know your numbers and you never forget them.”

Another feature of TrackMan that both Shields and Smith sing the praises of is the Find Your Distances application.

“I’ve always considered distance control to be a strength of my game, and this verifies it. One of the biggest mistakes in amateur golf is not knowing your distances. It’s great to know exactly how far you hit every club.” Smith said.

From Shields’ standpoint, he can’t understand why someone wouldn’t go through the distance check with TrackMan.

“If a player doesn’t come do this, they are crazy,” said Shields. “If you want to be competitive, you need to know your exact distances.”

Shields was also able to improve his short game by putting in sessions on TrackMan. He credits TrackMan with improving his wedge game, which he previously considered a liability, to something he now considers a strength.

“My wedge game improvement is due to TrackMan,” Shields said. “I started to realize that I needed to be more consistent, and the numbers from TrackMan showed me that. TrackMan helps you build your confidence, and that was certainly the case with me and my wedge game.”

In Smith’s case, the adjustments he made from TrackMan led him to an especially sweet victory at the Mid-Am. With winds gusting up to 40 miles per hour, Smith posted 13 pars and five birdies on the first 18 holes of the 36-hole final, leading his opponent, Hogarth, to proclaim it the best round of golf he’d ever seen. With that victory, Smith earned the right to head back to Augusta this spring. If things break his way, maybe Smith will see his name on top of that leaderboard again.



TrackMan user Kevin Shields

TRACKMAN AND PGA TOUR

EXTEND THE AGREEMENT

TrackMan and the PGA TOUR recently extended their partnership with the signing of a new five-year agreement. Under the contract extension, the PGA TOUR will continue using TrackMan for the measurement and reporting of player ball launch, ball flight, and club delivery statistics at its weekly PGA TOUR events. The two have been working together since 2005.



The PGA TOUR collects TrackMan data for all TOUR events. The collected data is used for PGA TOUR research, as well as selectively being made available privately to syndicate clients and publicly to fans.

Data collection and TrackMan operations are managed at the events by the PGA TOUR's ShotLink staff. ShotLink incorporates TrackMan data into its myriad of ShotLink statistics made available to the players, media and fans.

Complementing TOUR player statistics like driving distance, accuracy, putts per round etc. TrackMan data helps to provide a more in depth look at the TOUR Pros superb skills.

TrackMan data collected includes, Shot Trajectory, Carry Distance, Ball Landing Position, Ball Speed, Launch Angle, Spin Rate, Launch Direction and Club Speed.

The more in-depth statistics enable fans and the industry to see how they stack up against PGA Tour professionals in terms of TrackMan data. In turn, this gives golfers and the industry better insight into what kind of data numbers it takes, for example, to be able to drive the ball as far and accurately as a Tour Pro.

Steve Evans, Vice President of Information Systems for the PGA TOUR commenting on the new contract extension said, "TrackMan enables the PGA TOUR as well as our fans to discover more than just the scores. TrackMan's precision and dependability gives us the ability to analyze, document, and share accurate data including ball-flight distance, club and ball speed and more, which truly demonstrate the exceptional athleticism and abilities of PGA TOUR professionals."

“ We are very excited to continue our collaboration with the PGA TOUR. Being the choice of golf's leading associations, players, coaches, and governing bodies, affirms the quality and performance of our products and TrackMan's continued commitment to excellence.

– Klaus Eldrup Jørgensen,
Co-Founder and CEO at TrackMan

During its time with the PGA TOUR, TrackMan has also actively worked with golf's major governing bodies, the USGA and R&A as well. These partnerships have helped to cement TrackMan's position as the industry's leader in accuracy, reliability and ease of use.