

Science & Motion  
**Sports**



# SAM PuttLab 2008



**The Reference in Putt Training**

[www.samsports.us](http://www.samsports.us)

# New Features: *SAM PuttLab 2008*

The brand new release of the PuttLab software coming out January 2008 will include a lot of outstanding new features:

## ● **Video Integration**

PuttLab 2008 will include a full video recording module. Video and still pictures can be captured with any Windows compatible camera (DV, USB Webcam). Video is recorded automatically together with the PuttLab measurements - or you can record video manually and attach it to your PuttLab data later.



## ● **Realtime Audio Feedback**

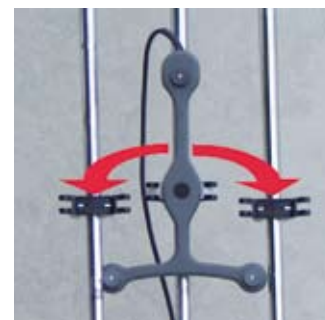
Get a realtime audio feedback on all training parameters. This will help you train on specific parameters without having to look on the computer display - or train one putting aspect with audio feedback and see another aspect on the display.

## ● **Predefined Recording Sessions**

PuttLab 2008 features up to ten predefined putting sessions like Basic Analysis, Putter Selection, Training, Putter Fitting. The sessions will run in a "session wizard mode" and are very easy to operate including automatic report generation.

## ● **FlexTriplet**

The new SAM FlexTriplet will allow you to prepare multiple putters for PuttLab measurement offline. To change from one putter to the next you just have to "snap" the FlexTriplet to the shaft - ideal for group training and putter selection.



*SAM FlexTriplet*

## ● **Direct Report Emails**

Send your PuttLab result reports directly to your client as a high quality PDF file. Even the email subject and text can be defined and will already be added to your email when it is created.

## ● **Media File Attachment**

You now can attach any type of media files to your PuttLab measurement data. The media files like videos, pictures, documents or audio files will be listed together with your measurements and can be viewed just by a click with the mouse.

## ● **Multiple Custom Report Logos**

Support of a unlimited number of custom logos for your print reports. Just select one from the list and it will be printed in the header of the reports. Ideal for advertising your organisation or as marketing tool for corporate events.

|   |   |
|---|---|
|  <b>GreenToTee Golf Academy</b><br>621 Westley Road<br>The Glencoe Golf Club<br>Glencoe, Illinois, 60022<br>Phone: 847.405.9800<br>Web: www.greentotee.com | <b>Science&amp;Motion Golf</b><br>www.scienceandmotion.com  |
|  → <b>Face at address</b>  | <b>Project:</b> KEVIN<br><b>Player:</b> BRETT<br><b>File:</b> 20.12.2004_01<br><b>Date:</b> 17.8.2007 |

# SAM PuttLab

## The Reference in Putt Training

## SAM PuttLab – General information

Together with international PGA Tour Pros the scientists of Science&Motion have developed the world wide unique analysis and training system *SAM PuttLab*. It gives players a scientifically precise feedback on all relevant parameters of their putting stroke. For the first time *SAM PuttLab* allows an individual and sensationally efficient putt-training with ascertainable success. Already today 26 European and American Tour Pros and several European national teams trust the performance of Science&Motion. Why? Success proves them right.



The *SAM PuttLab* analysis and training system is based on accurate ultrasound measurement. It gives you an individual real time feedback on 28 parameters of your putting stroke e.g. club face alignment at address and impact, club head rotation, swing path direction, impact spot on the club face, swing duration and rhythm. All results are presented in clear, easy to understand graphical reports. The analysis reveals even the smallest details of the movements. Using the *SAM PuttLab* training mode you can then tailor individual training strategies and improve specific aspects of your putting. Easy, quick and effective.

### Main features:

- easy-to-use
- automatic measurement and analysis
- evaluation of 28 parameters
- real time feedback in training mode
- graphical reports for various performance levels
- evaluation of putt technique and consistency
- training modules to improve specific aspects
- direct online feedback for each stroke
- comparison with the performance of PGA Tour Players
- complete analysis within 10 minutes
- individual competence profiles
- identifying strengths and weaknesses
- effective putter-fitting by data support
- portable handy suitcase for easy transport

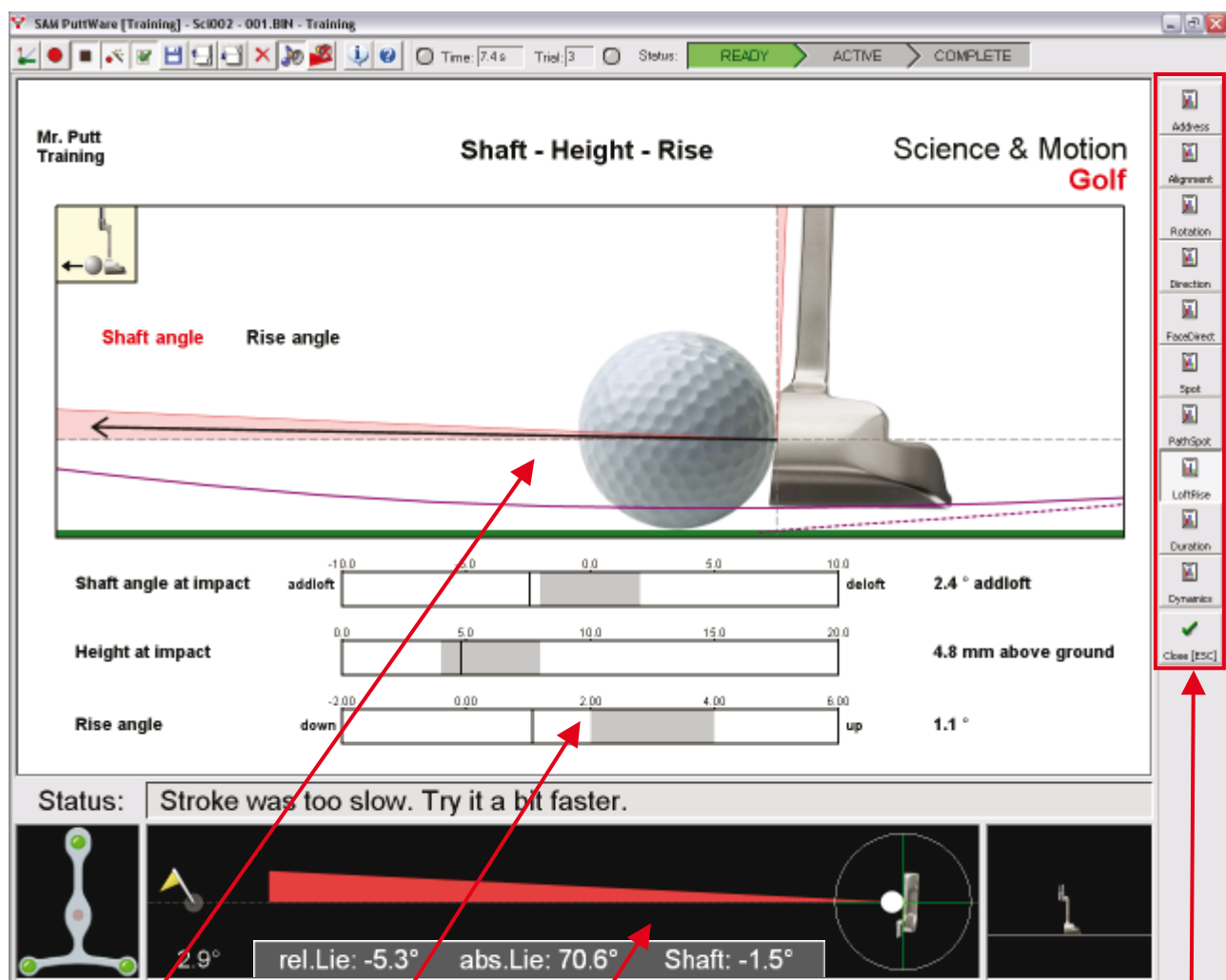


## SAM PuttLab – Training Mode

The SAM PuttLab training mode provides instant graphical and numerical feedback of all relevant parameters after each putt:

- live display of putter alignment, ball position and putter height
- real-time feedback information in easy to understand graphics
- detailed display of data values with benchmarking range

Software screenshot of the Training Mode:



Instant feedback for each putt

Detailed data display

Live picture (alignment, height, lie, shaft)

Choose the training parameter  
out of 10 different screens

## SAM PuttLab – Results Presentation

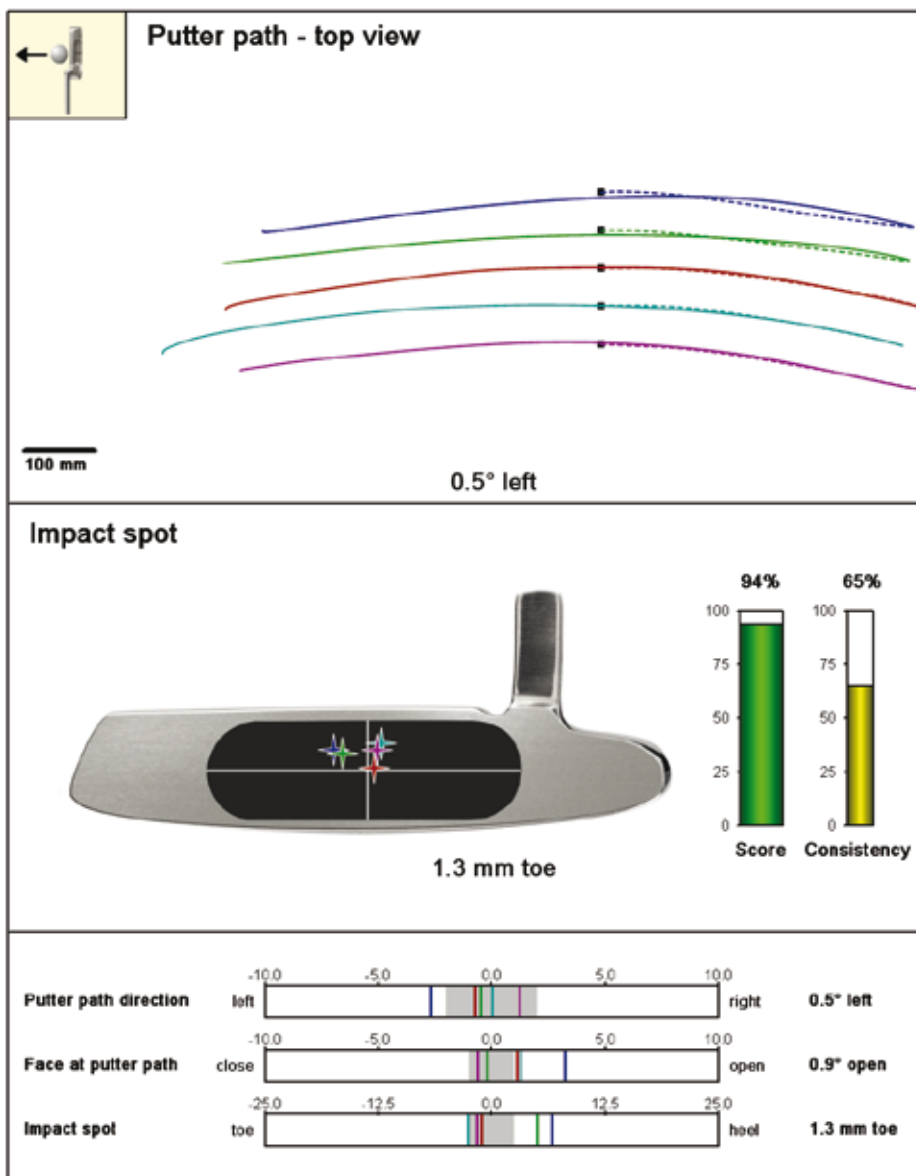
### *Printouts and PDF-files – the perfect processing of your results*

The results of the recorded putting strokes can be displayed in multi page print reports. Print reports can be inspected on the screen or printed out with high quality resolution. Additionally the reports can be exported to PDF files - this enables the coach to archive the results or to send the reports directly to the customer via email.

A print report will present the following information:

- easy to read overview graphics for specific putting aspects
- benchmark bar charts for score and consistency rating
- detailed display of data values with benchmarking range

Example Print-Report: *Putter Path and Impact Spot* (one out of 5 pages)



Complete putter path for each stroke. Up to 99 strokes can be displayed!

Display of impact spot on the putter face. Includes rating bar charts for *Score* and *Consistency*.

Detailed display of numerical parameters for each stroke with benchmark range overlay (grayed).

## SAM PuttLab – Putter Selection Report

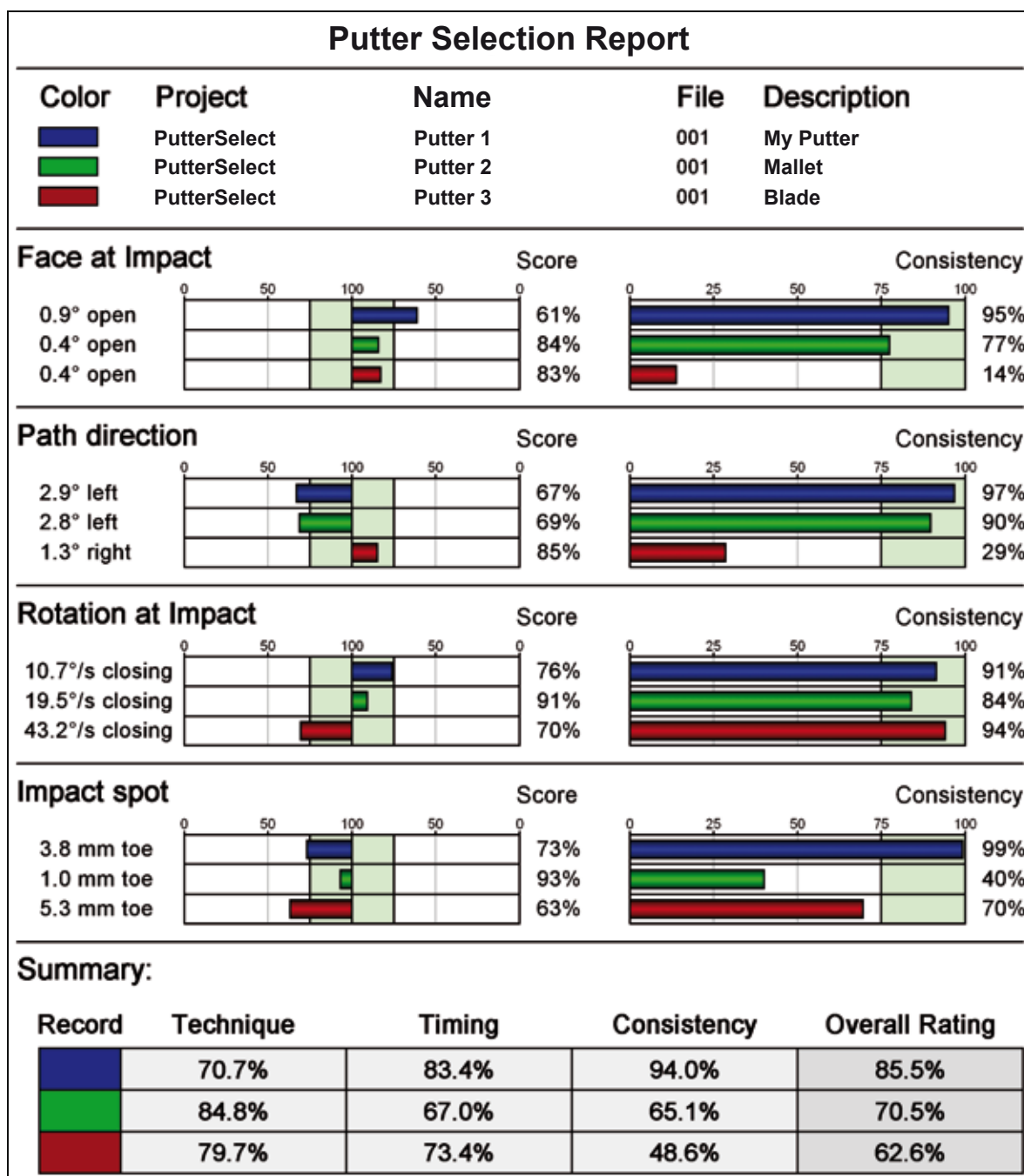
The Putter Selection Report allows a direct data comparison of up to 8 recordings in one single report with easy to read graphics.

So this is the ideal tool to quickly find the best putter for a player - and to see the differences between the tested putters at a glance.

It is also possible to compare different players or data of one player with previous recordings. Very important to see how the performance has changed over time.

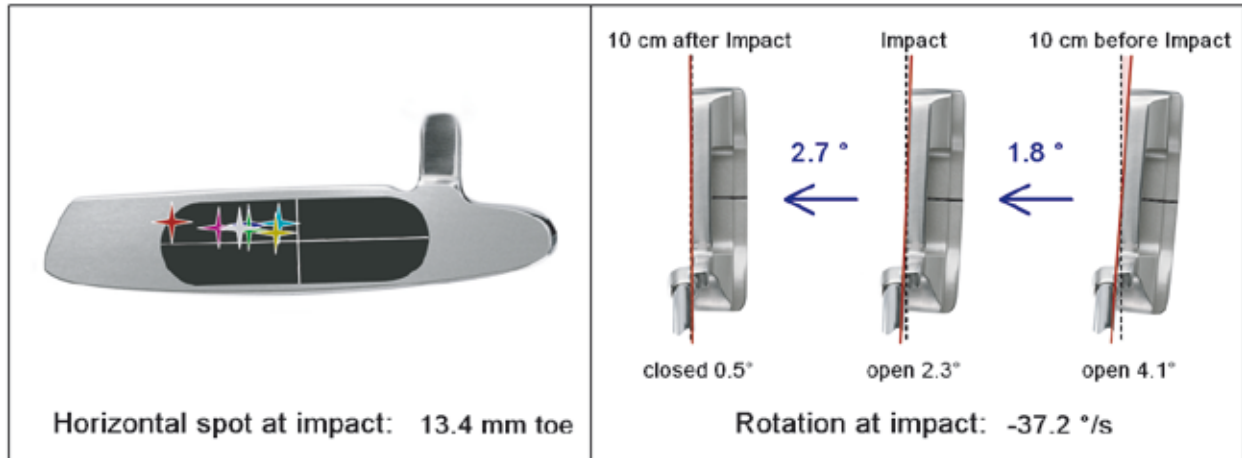
Finally summarized ratings in percent will give you a perfect overview!

### Example for a Putter Selection Report for 3 putters:

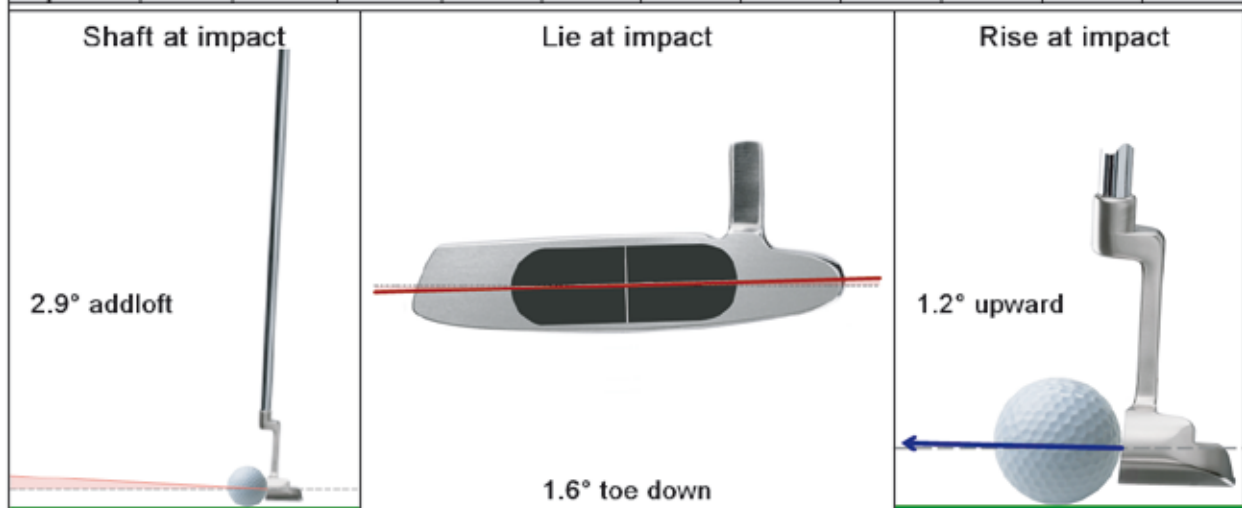


## SAM PuttLab – Putter Fitting Report

The Putter Fitting Report shows important information for dynamic putter fitting: Lie angle, shaft angle and rise angle (putter launch) at impact. Additionally all relevant single result values are printed to a table.



| #  | Face Angle |         | Direction | Rotation | Horizontal Spot |          | Height | Rise     | Shaft Angle |         | Lie Angle |          |
|----|------------|---------|-----------|----------|-----------------|----------|--------|----------|-------------|---------|-----------|----------|
|    | Address    | Impact  |           |          | Impact          | Rotation |        |          | Address     | Impact  | Impact    | Impact   |
|    | [°]        | [°]     | [°]       | [°/s]    | [mm]            | [mm]     | [mm]   | [°]      | [°]         | [°]     | [°]       | [°]      |
| 1  | 0.4 op.    | 2.6 op. | 8.1 right | -20.7    | 2 toe           | 12 toe   | 6      | 0.4 down | 3.1 add     | 2.1 add | 1.0 down  | 2.1 down |
| 2  | 0.8 op.    | 3.6 op. | 5.1 right | -46.1    | 0 toe           | 11 toe   | 8      | 0.6 up   | 3.2 add     | 2.5 add | 1.2 down  | 1.7 down |
| 3  | 0.5 op.    | 2.7 op. | 6.2 right | -35.0    | 18 toe          | 29 toe   | 6      | 2.0 up   | 3.5 add     | 2.9 add | 1.3 down  | 1.8 down |
| 4  | 1.6 cl.    | 1.0 op. | 8.5 right | -38.0    | 2 heel          | 5 toe    | 6      | 1.0 up   | 3.3 add     | 3.3 add | 1.4 down  | 1.8 down |
| 5  | 0.0 cl.    | 2.1 op. | 7.3 right | -43.5    | 5 toe           | 18 toe   | 7      | 1.7 up   | 3.3 add     | 3.5 add | 0.4 down  | 1.1 down |
| 6  | 1.1 cl.    | 0.6 op. | 8.1 right | -33.1    | 0 toe           | 5 toe    | 8      | 1.5 up   | 3.6 add     | 3.2 add | 1.2 down  | 1.5 down |
| 7  | 0.8 op.    | 3.1 op. | 5.1 right | -43.9    | 1 heel          | 14 toe   | 7      | 2.4 up   | 2.8 add     | 2.7 add | 0.6 down  | 1.2 down |
| AV | 0.0 cl.    | 2.3 op. | 6.9 right | -37.2    | 3.2 toe         | 13.4 toe | 6.8    | 1.2 up   | 3.3 add     | 2.9 add | 1.0 down  | 1.6 down |
| SC | 99.5%      | 29.6%   | 13.7%     | 72.8%    | 20.4%           | 6.9%     | 85.2%  | 80.4%    | 59.3%       | 63.7%   | 0.0%      | 0.0%     |
| SD | 0.9        | 1.1     | 1.4       | 8.7      | 6.9             | 8.3      | 0.9    | 0.9      | 0.2         | 0.5     | 0.4       | 0.4      |
| CO | 67.9%      | 57.8%   | 57.2%     | 49.5%    | 0.0%            | 5.3%     | 93.6%  | 49.7%    | 76.3%       | 85.6%   | 49.3%     | 91.8%    |



## **SAM PuttLab Testimonials** **- what the experts say...**

**David Leadbetter:**

*"The SAM PuttLab provides insight into the putting stroke with a level of precision unlike any other technology. The successful use of the system in my work with PGA tour players confirmed the high efficiency of this excellent feedback tool."*

**Hank Haney** (Trainer of Tiger Woods):

*"... So how do you create a process to diagnose and treat the yips - a problem many players won't even admit they have? That's where the SAM PuttLab comes in. A team of German scientists and teaching professionals figured that the only way to cure the yips was to first discover exactly when, how and how much they happen in a stroke. That's what their SAM machine does. It provides a complete diagram of the putting or chipping stroke, measured with ultrasound..."*

Golf Digest, August, 2004: "The Science of Curing Yips – New Technology Finally Gives You A Fighting Chance"

**Padraig Harrington** (No. 1 ranked PGA Europe Tour Player 2006 and 2007):

*"You can have good weeks putting badly, and vice versa, but this machine is a great help with those things even a coach cannot see."*

**Keith Williams**, (PGA Europe Tour Coach):

*"As soon as I had worked with the system myself, I realized what an innovative and significant piece of equipment it is. ... Knowing exactly what is happening during the putting stroke can mean a significant and important change of approach to helping coach golfers at all levels. Ultimately it's about helping players get better results."*

**Steve North** (Director of Instruction, St Andrews Links Golf Academy):

*"St Andrews Links Golf Academy is proud to be at the forefront of the modern game. SAM PuttLab is a key component of the coaching system we have in operation at the Home of Golf. It provides clear feedback, positive results and above all it is fun to use."*

**Geoff Mangum** (Putting expert):

*"The SAM PuttLab takes putting science into the body, giving the teacher and the golfer all the precise knowledge needed to assess the effectiveness of technique, to identify problem areas, and to guide and monitor improvement."*

*This is the first putting technology worthy of the next century, and should immediately find a place in every top golf school and in every professional player's arsenal."*

**Federica Dassu** (Head-Coach of the Italian women's Golf Federation):

*"We had a training camp in the south of Italy. The machine was well accepted by the players...some were totally enthusiastic about it!"*

**Travis Fussell**, President Fussell Putters, Inc:

*"From amateurs to tour players, I am amazed how easy it is to pinpoint problems in ones putting stroke. From a simple assessment to teaching, nothing comes close to the accuracy and consistency that your machine displays. I have been able to modify and sell hundreds of putters utilizing your SAM system."*

**Joanne Mills** (Ladies European Tour winner 2007):

*"After attending the Putting Academy my putting stats have improved enormously. I now average about 30 putts and make more birdies in a round than I ever have. I truly recommend you have your stroke analysed by the SAM PuttLab."*

## Science&Motion on Tour

After last year's tremendous success and feedback, the Science&Motion Tour Team has again attended important tournaments of the European and US PGA Tour. A significant number of PGA professionals discovered and took advantage of the various practice possibilities featured by the *SAM PuttLab* and enjoyed the feedback discussions with the Science&Motion Tour Team:

### BMW International Open:



Robert Coles (ETP)



Steven Gallacher (ETP)



James Hepworth (ETP)



Johan Edfors (ETP)  
Dr. Christian Marquardt  
(SAM)

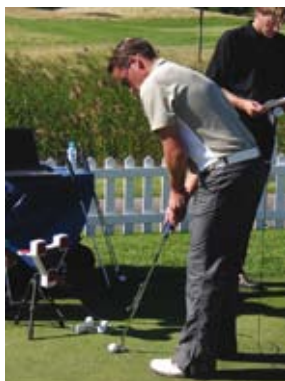


Moritz Fischer (SAM)  
Luke Donald (ETP)



Dr. Christian Marquardt  
Matthew Blackey (ETP)  
Uwe Tappertzhofen (SAM)

### Linde German Masters:



Philippe Lima (ETP)



Graeme Mc Dowell (ETP)  
Dr. Christian Marquardt



Tobias Dier (ETP)

(ETP: European Tour Player)

## SAM PuttLab - Product Editions

There are 3 editions of *SAM PuttLab* available: *Basic*, *Standard* and *Pro*

The new software release PuttLab 2008 with a lot of improvements will be available in January 2008.

The following table shows the features of the different editions:

| PuttLab 2007 Features   | <i>Basic</i> | <i>Standard</i> | <i>Pro</i>  |
|---|--------------|-----------------|-------------|
| <b>NEW: Video recording module</b><br><i>Record video with any Windows compatible camera and attach it to your measurements</i> |              | X               | X           |
| <b>NEW: Direct emailing of reports as PDF</b>   |              | X               | X           |
| <b>NEW: Predefined putting sessions</b><br><i>like "Putter selection", "Putter Fitting", "Short Training" and more.</i>         |              | X               | X           |
| <b>NEW: Audio Feedback - realtime audio feedback on all training parameters</b>   | X            | X               | X           |
| <b>NEW: Custom Report Logos</b><br><i>Place your individual logo on the reports - multiple predefined logos are possible.</i>   |              | X               | X           |
| <b>NEW: Media file management</b><br><i>Add any media file to your measurements</i>   | X            | X               | X           |
| Complete 28 Putt Parameters   | X            | X               | X           |
| Player management   | X            | X               | X           |
| Measurement module  | X            | X               | X           |
| Training module   | X            | X               | X           |
| Screen Reports  | X            | X               | X           |
| Print Reports   |              | X               | X           |
| PDF export module   |              | X               | X           |
| Competence Profile Reports including PGA Tour data references   |              | X               | X           |
| Putter Fitting Report   |              | X               | X           |
| Putter Selection Report   |              | X               | X           |
| 3D replay of putting stroke   |              | X               | X           |
| Putting Games   |              | X               | X           |
| Database export   |              |                 | X           |
| Statistics module   |              |                 | X           |
| Yips analysis module ( <i>for wrist measurement including special Reports</i> )   |              |                 | X           |
| Head movement measurement ( <i>including special Reports</i> )  |              |                 | X           |
| <b>NEW: FlexTriplet - for quick Triplet change</b>  |              | X (2 clips)     | X (5 clips) |
| Additional Sensor ( <i>for wrist or head measurement</i> )  |              |                 | X           |

All product editions can be upgraded to a higher edition at any time.  
For prices and details please contact your local agent or Science&Motion Sports.

## SAM PuttLab – Product Details



### Technical Data:

- 3 sensor channels (4 channels for Pro edition)
- Real time movement analysis via USB interface
- 210 Hz measurement frequency
- Up to 1.3 meters (50 inches) measurement distance
- Size: 9.45x10x2 inches
- Weight: 1.65 lb
- System requirements: PC or Laptop with Windows XP / Vista
- Power supply via USB - no external power needed!

### Supplied Parts:

- SAM Motion Analyzer main unit
- Tripod for main unit
- USB connection cable
- FlexTriplet (new detachable ultrasound sensor)
- Battery clip for belt attachment
- SAM system suitcase
- SAM PuttLab Software version 2008 (Setup CD)
- PDF manual (on CD)
- Printed quick start guide
- Calibration Sheet
- Batteries (2 x type AA)

# The SAM Academy

## *State of the art knowledge in putting*

The SAM Academy offers individual putt lessons as well as education to a SAM Certified Instructor or certifying your golf school to a SAM Performance Center. Cooperation in research projects allows to efficiently collect and analyse comprehensive data in putting. To upgrade your events you can book the SAM team to offer top level putt analysis and training to your customers.

### **SAM Academy Training**

- Individual or group putt lessons
- Fundamentals of putting
- Technical SAM PuttLab training
- Putter fitting
- Yips training

### **SAM Research**

- Consulting in scientific projects
- Cooperation in research studies

### **SAM Events**

- Bringing top level putt analysis and putt training to your event

### **SAM Certified Instructor**

- One day education seminar
- From motor learning to professional putt training
- Reference manual and certification questionnaire
- Listing on the SAM web page

### **SAM Performance Center**

- including SAM Certified Instructor
- First hand knowledge in putting
- Participating in newest developments
- Ongoing education
- Listing on the SAM web page



*In a well recognized lecture Dr. Christian Marquardt in conjunction with the famous legend in Golf instruction Dr. Jim Suttie has presented the work of Science&Motion on the PGA Tour to more than 700 PGA Pros at the 2006 PGA Teaching summit in Port. St. Lucie/Florida.*



*The SAM Academy conducting putting clinics in Mallorca (Spain)*

**Please contact [sales@samsports.us](mailto:sales@samsports.us) for booking or information.**