

# Science & Motion Sports

## SAM PuttLab 5 New features



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# 1 What's new in PuttLab 5

PuttLab version 5 includes a lot of new features. The main differences to the previous version 2010 are listed in this chapter to give a quick overview.

All the new features are described in detail in this manual. Just follow the links in this overview to jump to the detailed descriptions.

## 1.1 PuttLab App - remote operation of PuttLab

Main functions of PuttLab 5 can be controlled by an App you can run on your tablet or smartphone. First release of the App will be on the iOS platform and supports iPad and iPhone. A release for Android platform is planned for 2014.

Besides the remote control features the iPad App also includes a "Offline Mode" which allows to store PuttLab reports on the iPad and review the data without connection to the PuttLab computer.

**Please note:** When you use the App to control the PuttLab you will still need a Windows computer connected to the PuttLab device by USB and a Wifi connection between computer/laptop and tablet.

### Main features of the PuttLab App control:

#### a) Remote operation mode (iPhone and iPad):

In general the app enables your device to act as a remote control for the PuttLab software

- Add new players and projects using the app instead of computer keyboard and mouse
- Start measurements and training sessions from the app
- Delete a putt directly after recording when you see there is something wrong
- Do system calibration by pressing a button in the app instead of need to hit a key on the keyboard
- Open and browse reports from the app – very helpful if you explain the results and don't need to step in front of the screen all the time
- Take photos or videos with your tablet/phone during a measurement and they will automatically be uploaded to the PuttLab software and stored to the session data

#### b) Offline operation mode (only iPad):

The iPad app includes offline data storage and additional features to edit report data and send it to social media storage (Facebook, Twitter, Dropbox, Email)

- Screen reports can be downloaded to the local iPad. These reports will also be available after the app is disconnected from the PuttLab software
- Local report data can be edited with drawing tools, the whole editing process including audio can be recorded to a video
- Report data or photos or videos can be send by email or can be uploaded to Facebook, Twitter or Dropbox. This allows to share the PuttLab results with your clients

Please read chapter [The SAM PuttLab App](#) for further information how to operate the PuttLab 5 app.

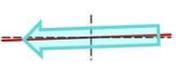
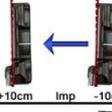
## 1.2 New Report: Performance Report

The *Performance Report* presents a very easy to understand overview on the putting performance and is a good report to be given to the student without confusing him with too much details of the data. The Performance Report is very similar to the Competence Profile. The Performance Report shows only data for the currently selected data set.

The data on the left side correspond to the technical aspects of a putt stroke. In the left center an image represents the average result for each aspect. The result is classified in 5 categories which are displayed at the left side. On the right side the numerical data value is displayed.

The traffic lights signs on the right side correspond to the Consistency of a player and represent the repeatability of a putting stroke. The more the data values for each putt are close together the higher is the consistency. The colors are red for a consistency lower than 50%, yellow for 50%-75%, green for 75% - 90%, and green-plus for the Tour Range with >90%.

### Performance Profile

Player	Session	File	Description	Date
Amateur HC-15	001	001	Amateur HC-15	10.03.2010
<b>Face Aim</b>				
closed		1.2° closed	low	 26 %
<b>Face Impact</b>				
open		0.4° open	mid	 70 %
<b>Putter Path</b>				
left		2.0° left	mid	 75 %
<b>Face to Path</b>				
open		2.5° open	perfect	 92 %
<b>Rotation Impact Zone</b>				
neutral		3.3° closing	mid	 62 %
<b>Impact Spot</b>				
toe		6.5mm toe	high	 79 %
<b>Backswing Tempo</b>				
slow		755 ms	mid	 56 %
<b>Impact Tempo</b>				
slow		363 ms	mid	 66 %
<b>Summary:</b>				
Tendency	Timing	Consistency	Overall Rating	
72.5%	79.8%	60.3%	68.2%	

### 1.3 New Report: *History Report*

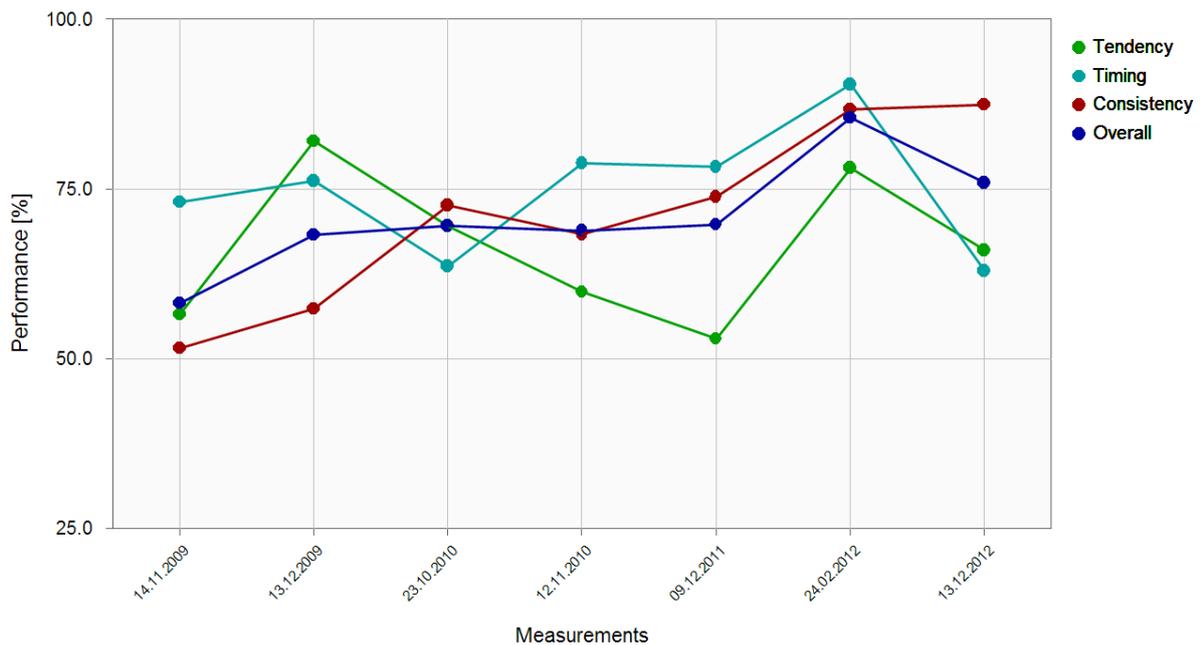
The *History Report* displays the performance of a player over the time. The Performance History report is started from the Profile menu. A checkbox allows to add up to 99 data sets to be displayed. The [Add all measurements] button directly adds all session data which are measurements to the selection. Trainings sessions and other data sessions will not automatically be added. With the [Add all session records] button all records of the actually selected session will be added to the selection. Single measurements can be added with the [Add selected] button or by double clicking onto a measurement.

The displayed data will then be sorted due to the date of data recording. The dates are shown on the horizontal axis.

**i** Please note that the data is displayed in sorted order, but each data session is equally spaced irrespective of the time difference between two sessions.

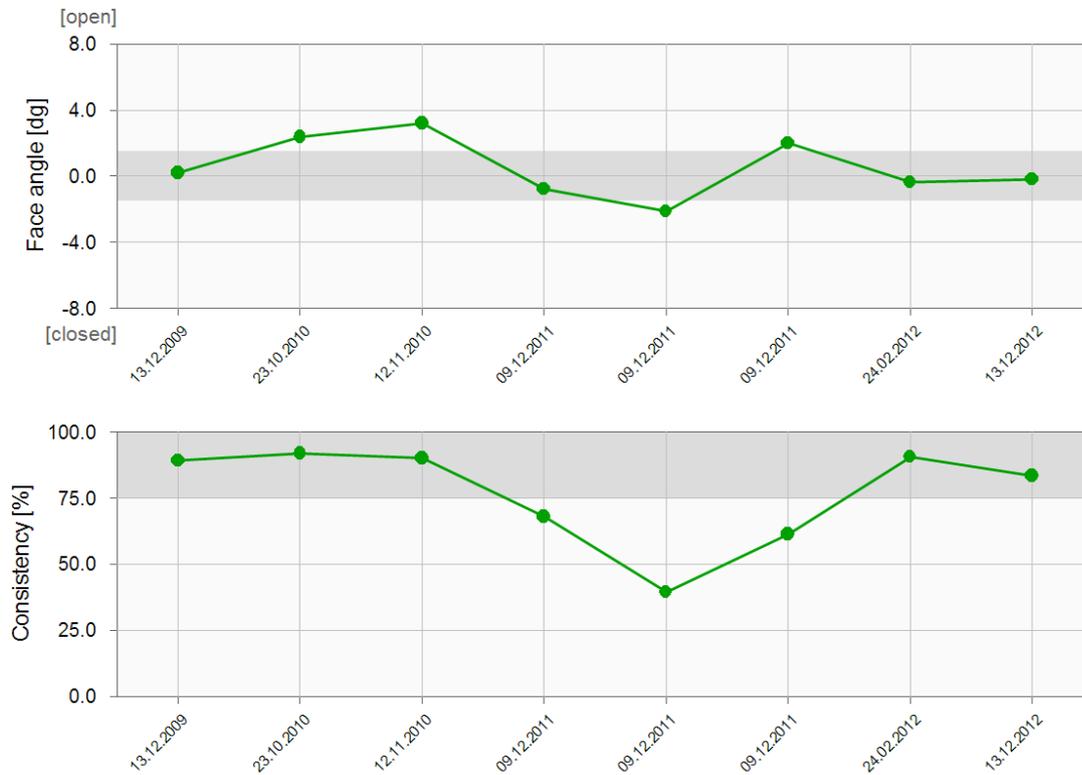
The first screen of the report displays an overview on the Tendency, Timing, Consistency and Overall Score Rating.

Performance Chart



The following screens of the report display the performance over time for selected parameters. The upper graph shows the raw data value, the lower graph shows the corresponding Consistency rating. The grey shaded area represents the Tour data range.

### Face Angle at Address



## 2 SAM PuttLab App

PuttLab 5 introduces remote operation of many features by app control.

**Please note:** The app will not replace the PuttLab software – it will work as a remote control and connects to the PuttLab Windows software.

### Requirements to use the PuttLab app:

- A windows computer with PuttLab 5 software installed
- An iPad or iPhone. Following devices will work: iPhone 4 or newer / iPad Mini / iPad 3 or newer
- PuttLab App installed on your iOS device. The app is free and can be loaded from the Apple App Store.
- A WIFI network where both the PuttLab computer and the iOS device can connect to (many laptops can create a WIFI access point on their own without additional hardware, how to do this is described later in this manual)

In this manual only the connection process and the basic features will be described. There are instruction videos available for all aspects of the app features on the Science & Motion Website: [www.scienceandmotion.com](http://www.scienceandmotion.com)

### 2.1 Features of the PuttLab App

Depending on if you use an iPhone or an iPad the functionality of the PuttLab app will be different. On iPhone the app will mainly act as a remote control for PuttLab. On iPad a lot of additional features are available to work with PuttLab data when you are disconnected from PuttLab.

See the following feature lists for details:

#### a) Remote operation mode (iPhone and iPad):

In general the app enables your device to act as a remote control for the PuttLab software  
Following features will be available:

- Add new players and projects by using the app instead of computer keyboard and mouse
- Start measurements and training sessions from the app
- Do system calibration by pressing a button in the app instead of need to hit a key on the keyboard
- Delete a putt directly after recording when you see there is something wrong
- Open and browse reports from the app – very helpful if you explain the results and don't need to step in front of the screen all the time
- Take photos or videos with your tablet/phone during a measurement and they will automatically be uploaded to the PuttLab software and stored to the session data

#### b) Offline operation mode (additionally available only iPad):

The iPad app includes offline data storage and additional features to edit report data and send it to social media storage (Facebook, Twitter, Dropbox)

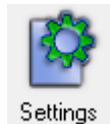
- Screen reports can be downloaded to the local iPad. These reports will also be available after the app is disconnected from the PuttLab software
- Local report data can be edited with drawing tools, the whole editing process including audio can be recorded to a video
- Report data or photos or videos can be send by email or can be uploaded to Facebook, Twitter or Dropbox. This allows to share the PuttLab results with your clients

## 2.2 How to connect the App to PuttLab software

Be sure both devices have access to the same windows network. The PuttLab system can be connected to this network either by cable or through Wifi connection. The iOS device needs access to the same network through Wifi.

To use the App connection in PuttLab this feature has to be enabled in the program settings.

Go to the program setting by clicking this icon:



Go to the page *general settings* and enable the checkbox for app remote control:

App Remote Control

activate app remote control (iOS / Android)

Port number:  (only change in case of problems)

Do not change the port number if you do not have a problem and need to fix this.

When you now close the settings and go back to the main screen you will see a new symbol in the top right corner of the screen:



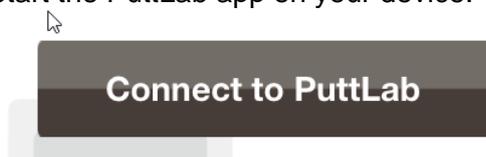
This symbol always shows the connection status of the software. After start it will always be "Offline" which means no connection is possible in this state.

If you click on the symbol state will change to "Ready to connect" and also the current IP address in the network is displayed:

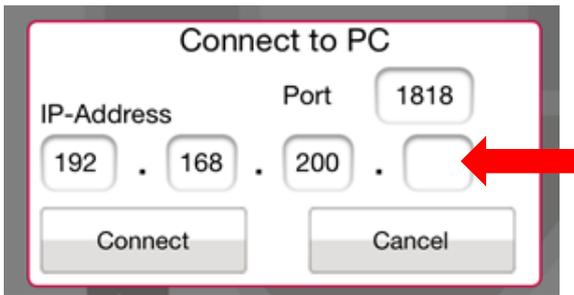


Now the PuttLab software is ready to connect to the app.

Start the PuttLab app on your device. On the start screen of the app press the following button:



The following window will show up:



If both devices are in the same network the first three number groups must be identical, in this case this is 192.168.200. In the last field please enter the number you see in the PuttLab software (which is 24 in this case).

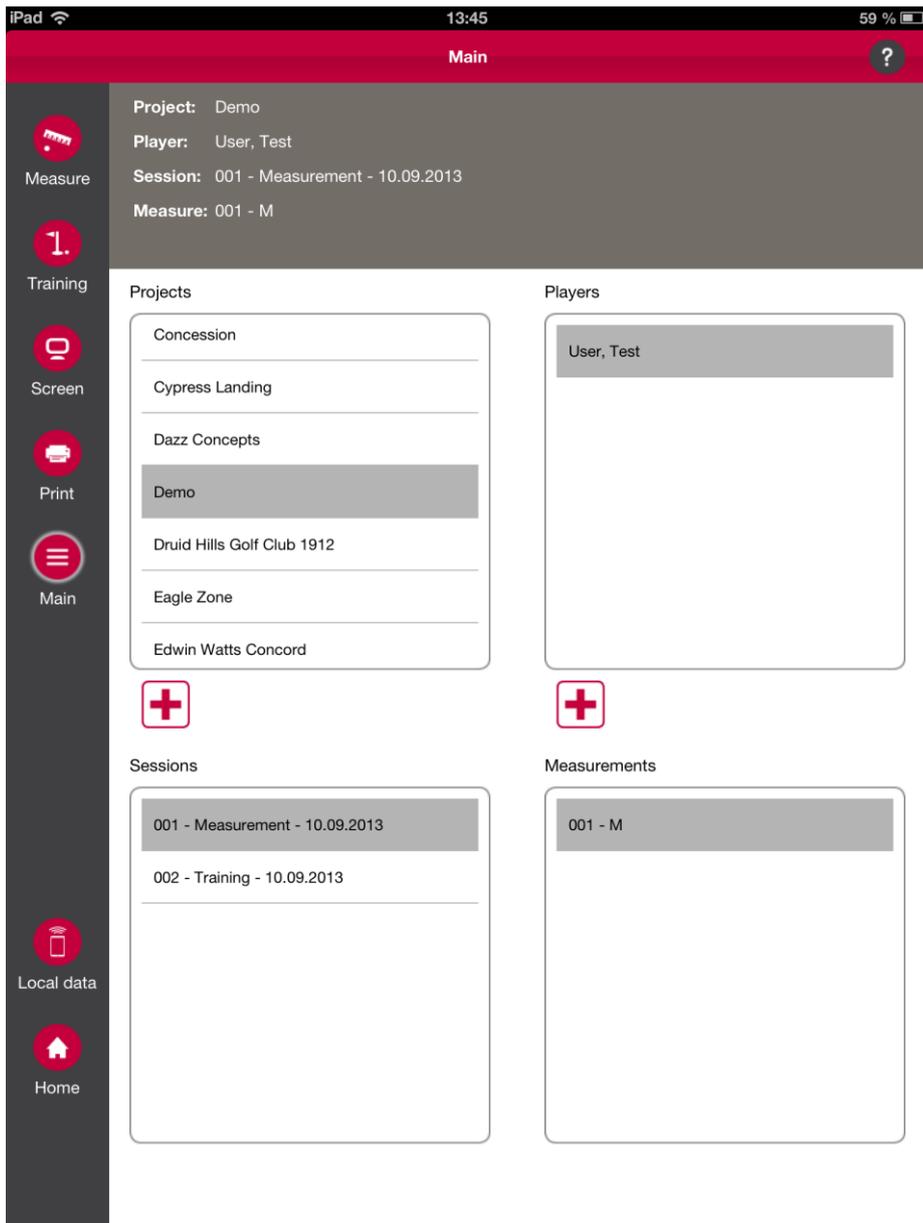
Depending on the network settings of the PuttLab computer this number might be different when you restart the computer, please be sure always to enter the number that is displayed in the PuttLab software:



After this is done press the "Connect" button.

The connection state in PuttLab should change to:

On the handheld device you should see the main screen of the app:



If you are on an iPhone this screen will look different!

## 2.3 Getting started with PuttLab App

The top area of the screen shows information of the current PuttLab data (Project, Player, Session). The lists below correspond to the lists in the PuttLab main screen. Once the App is connected to the PuttLab software, the lists should always be identical and synchronized. This allows data selection either by app or in the PuttLab software.

The dark grey bar on the left side presents "actions" to be executed from the app:



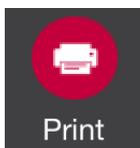
Starts a Measurement session. PuttLab must be connected.



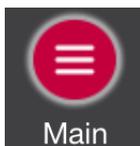
Starts a Training session. PuttLab must be connected.



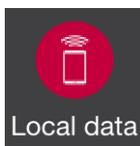
Starts a Screen Report



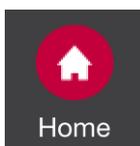
Starts a Print Report



Closes the actual screen and goes back to the main screen on app and PuttLab software.



Close connection to PuttLab (end remote mode) and switches to the app offline mode to browse offline data.



Close connection to PuttLab and switch back to app start screen.

## 2.4 Training / Measurement with remote app

If the App is connected to the PuttLab software and in "remote" mode you can start Measurements / Trainings from the app.

Just click on one of the start buttons:



The PuttLab will switch to recording mode and the remote app offers some useful features to control the process:

- Do the system calibration from the app without having to use the computer keyboard. Very useful if the keyboard is out of reach or blocked by the player.

- Delete last putt – if you see a putt is somehow strange or something has gone wrong in recording you can easily delete the putt from the app.
- Take a picture or a video with the iPad/iPhone during a recording. These media files can be transferred to the PuttLab software when the data is saved. Photos/videos will then be available in the PuttLab software as media attachments to the recording session.

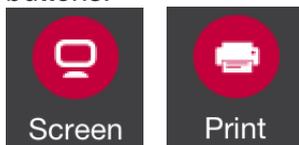
### Additional features for Training:

Browse back in the putts history to compare different aspects stroke by stroke.

Upload interesting report pages to the app – a picture browser allows to view all uploaded pictures. This is a great feature to document a training process and see changes (only iPad).

## 2.5 View and upload PuttLab Reports

In general Print and Screen Reports can be started from the remote app using the following buttons:



The Print report view of the app is just a remote control for the PuttLab software. The app lets you browse through the report pages and set zoom levels.

The Screen report viewer on the iPad app also allows the upload of reports to the iPad. Reports can be viewed on the iPad and also stored to the local memory as pictures. So for the Screen report the app can be used as a remote control for the PuttLab software AND also allows viewing the reports on the device, even after the PuttLab software is disconnected from the app.

How to work with stored data is explained in the next section.

## 2.6 Work with local data on iPad (offline mode)

The iPad app (not the app for iPhone!) allows to store PuttLab reports to the local device.

All screen report pages that are displayed on the iPad can be stored to the local memory and will then be available "offline". That means you can load the reports without being connected to the PuttLab.

Reports can also be sent to a Drobbox folder or sent by email.

Additionally it is possible to edit the reports with drawing tools and audio recording. Result of the editing process will be a video containing all the drawing actions and the audio which was recorded during the edit process.

### How to store Reports on the local device:

Report Data can only be stored from the Screen Report page.  
First step is to download the Report to your iPad by pressing on the area with the text "tap to load report".

Then press the following button and all report pages will be saved to the local data:

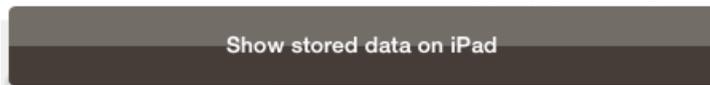


Save to iPad

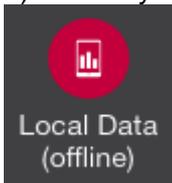
### Review stored Report data:

To review locally stored data there are two options:

a) from the welcome screen of the app by pressing the following button



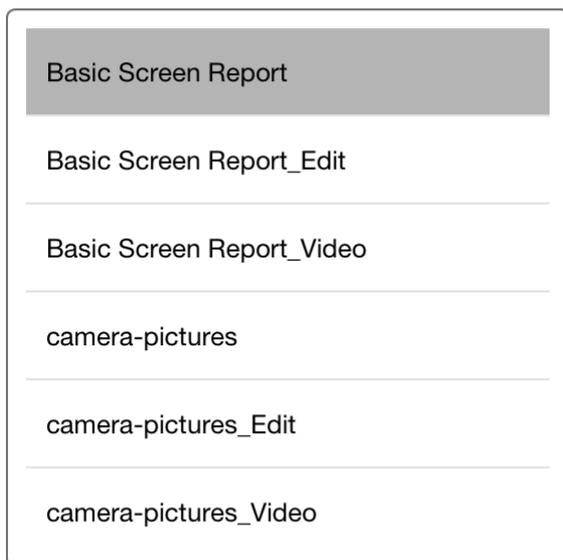
b) from anywhere in the app by pressing the "Local Data (offline)" button on the bottom left



In case the app is connected to PuttLab the connection is closed when entering the offline mode.

Data is organized in the same way as in the PuttLab software.  
All available data for one Session is listed in the selection box on the lower right:

Reports / Photos / Videos



You have the following options to work with the media data:



Open the media in the viewer.  
This is possible for reports and photos.



Edit the media.  
Edit screen with drawing tools will open. Only possible for reports and photos.



Play video files.  
A selection box with all available videos will open.



Share media files.  
Options are: Dropbox, Email, Facebook, Twitter  
(videos can only be shared by Dropbox and email).



When you are in the offline mode the following button will always let you connect back with the PuttLab:



## 2.7 PuttLab App tutorials

On the Science&Motion YouTube channel you can find several tutorials for operation of the PuttLab with the app.

The link to our YouTube channel is featured on our website:

[www.scienceandmotion.com](http://www.scienceandmotion.com)

The website also features a page with a collection of information regarding the PuttLab App including some tutorial videos:

[puttlabapp.scienceandmotion.com](http://puttlabapp.scienceandmotion.com)